CHAPTER 5

Ethics in psychology

Objectives

By the end of this chapter you should be able to:

- Identify ten areas of concern in the BPS ethical guidelines for research with human participants and comment on each one;
- Consider some ethical issues which apply in particular to students doing investigations as part of an introductory psychology course;
- Appreciate particular psychological investigations which have raised ethical issues;
- Comment on psychologists' everyday experience of applying ethical guidelines;
- Identify some ethical issues raised by psychotherapy in general and behavioural treatments in particular;
- Explain what is meant by, and give examples of, 'socially sensitive research';
- Consider some of the dilemmas psychologists face when conducting socially sensitive research;
- Describe the kinds of research psychologists conduct with animals and comment on its incidence;
- Analyse practical and ethical issues raised by animal research in psychology.

Ethics in psychological research with human participants

One of the primary aims of psychology is to improve the quality of human life and to do this it is necessary to carry out research with human participants. They are a vital resource. Without them there would be no psychology and no advances in knowledge. If psychologists are to enjoy the freedom they need to

conduct research, they must take great care that they do not create an atmosphere where people are unwilling to take part in psychological research. Above all else, however, psychologists have a duty to respect the rights and dignity of research participants. Consequently they must maintain high ethical standards whatever their field of research or practice. This means that they must abide by certain moral principles and rules of conduct and these serve to protect research participants, the reputation of psychology and the psychologists themselves.

BPS ethical guidelines

The British Psychological Society regularly publishes and revises general ethical guidelines concerning the use of human participants in research, the most recent in 1993. The Society also publishes guidelines about the use of animals in research and about professional and ethical conduct in various areas of psychological practice. However, as with all guidelines, there is room for interpretation and there will always be a point at which the psychologist has to exercise judgment, since no code of ethics can take care of all possible situations. Box 5.1 summarizes the main points of the BPS guidelines concerning research with humans and offers some extra information about how psychologists might deal with any problems that may arise. These issues can be more conveniently arranged under two headings: 'Risks' and 'Informed consent'.

Risks

- **Psychological stress**. The most obvious form of risk a participant is likely to encounter is some form of psychological stress such as fear, anxiety, embarrassment, guilt or loss of self-esteem. Psychologists have an ethical obligation to avoid causing these as far as possible and to protect participants from unforeseen risk. This may mean abandoning or redesigning the research.
- **Coercion**. A less obvious form of risk arises from coercion of participants to take part in research. This is especially important when participants are not self-selected volunteers and are offered payment or other perks for their cooperation. Participants may feel obliged to take part in the research because of these.
- **Deception**. Deception is another form of risk. It may be necessary to withhold information from participants for a variety of reasons: for example, it could make a nonsense of the experiment if participants knew the hypothesis being tested. If there is no alternative to deception, and the research is important enough to warrant it, then the researcher should be careful to **debrief** the participants afterwards in order to ensure that there has been no lasting harm.
- **Privacy**. Finally, if breaches of confidentiality or privacy have occurred, measures must be taken to ensure the anonymity of participants and, if it is possible, give them the option to withhold their data. Sometimes, the latter would not be possible. For example, Humphreys (1970) was able to conduct research into homosexual acts in public toilets by acting as a lookout for the participants. While the breach of privacy is obvious, it could be argued that the participants had, in a sense, granted the researcher permission to observe them.

Informed consent

Informed consent is a second key issue in research because it is not always desirable to inform participants fully, nor is the researcher always in a position to do so: for example, if the research is into new areas. Even with the best of intentions, the researcher may fail to inform participants fully because they are told too little or they fail to understand. In some research (for example, Zimbardo et al.'s (1973) prison simulation study) it is not possible to inform potential participants in full because the researcher cannot know in advance how things will progress.

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Debriefing After an investigation, the investigators discuss with the participants the nature of the research, the findings, and any other matters that are needed to ensure the participants' well-being.

Informed consent In relation to research studies, ensuring that the participants are informed as fully as possible by the investigator about the purpose and design of the research, before the research proceeds.

Box 5.1 A summary of the 1993 BPS ethical guidelines for research with human participants and some comments on their use

Guideline	Explanation	Comments
1. General	In all cases, investigators must consider the ethical implications and psychological consequences for the participants in their research. This should be done for all participants taking into account ethnic, cultural, social, age and sex differences.	The best informed judges of whether a piece of research is ethically acceptable will probably be members of the population from which the participants are to be selected. It is not always possible to do this if, for example, the participants are children or intellectually impaired, in which case people acting for them would be consulted.
2. Consent	Whenever possible, investigators should obtain the consent of possible participants in a research project. This usually means 'informed consent', that is, the investigator should explain, as fully as possible, the purpose and design of the research before proceeding.	In some cases this will mean advising participants that the research procedures involve discomfort or other risks which they would not normally encounter. In such cases, the researcher must seek the guidance of colleagues before asking for consent.
3. Deception	Psychologists must avoid deceiving participants about the nature of the research wherever possible. However, there will occasions when to reveal the research hypothesis to participants would make the research pointless and so deception would be considered.	Deception should not be used if there is an alternative procedure to the one proposed. If deception is being considered, safeguards include consultation with others about its acceptability, e.g. individuals similar to the proposed participants, colleagues and various ethical committees (for example, those set up by the BPS). Sometimes, it is possible to ask participants if they would accept deception until after the research is completed. At all times, it should be considered how participants are likely to be affected by finding out later that they have been deceived.
4. Debriefing	This is more than just informing the participants of the nature of the research and the findings after the study is over. It must take the form of 'active intervention', i.e. the psychologist must be prepared to discuss the procedures and findings with participants and endeavour to ensure that they leave the research situation, as far as possible, in the state in which they entered it.	Intention to debrief participants later is no excuse for exposing them to unacceptable levels of risk, neither is the inability to debrief them (e.g. as in some observational research).
5. Withdrawal from the investigation	Investigators must inform participants of their right to withdraw, without penalty, at any stage of the research. They should be prepared to remind participants of this right and to stop any procedure which appears to be causing discomfort.	This may be difficult to achieve (e.g. with children or in observational research) but it should still be attempted. After debriefing, participants have the right to withdraw their data and see it destroyed in their presence.

continued

6. Confidentiality and privacy	Participants are protected by law (The Data Protection Act 1984) in that they have the right to expect that any information provided by them will be treated confidentially and that their identities will not be revealed.	Failure to observe confidentiality would quickly ruin the reputation of research psychologists; nevertheless, they have a duty to break this guideline if they discover a situation where human life is in danger, e.g. if a suicide threat had been made. This guideline may also be broken if participants give full and knowing consent to their identity being revealed (preferably after seeing a written account of the research report.)
7. Protection of participants	This refers to protection of participants from mental or physical harm during psychological investigations. Risks greater than those likely to be encountered in everyday life should be avoided. Participants should also be asked to reveal any medical conditions, or other problems, which might put them at special risk. If encroachments of privacy are likely, the participants must understand that they do not have to reveal anything private or personal.	Discussion of results with participants must be done with the utmost care and sensitivity. Test results, for example, may be poorly understood by the layperson and this could cause undue anxiety. Participants should also be informed about how to contact the investigator should some unforeseen consequence of the research arise either immediately after the investigation or later on. The researcher is then obliged to correct or remove the problem.
8. Observational research	In observational research individuals cannot always give informed consent, nevertheless it is still important to respect people's privacy and well-being especially as, in some cases, it will not be possible to obtain informed consent or provide a debriefing.	Observations should be made only in those situations where people would normally expect to be in public view and not where they expect to be unobserved. Covert participant observations present a particular problem here especially as they raise further issues of deception and confidentiality.
9. Giving advice to participants	If, during an investigation, a researcher becomes aware that a participant has a significant psychological or physical problem, there is an obligation to reveal this to the participant and to attempt to help them obtain professional advice should they wish it.	This is a sensitive issue. Few research psychologists are expert enough to make on-the-spot diagnoses. On the other hand, if a participant does seek advice from the researcher, it is only acceptable to give it if it were agreed beforehand as part of the research design and the psychologist is appropriately qualified.
10. Monitoring colleagues	Investigators share a moral responsibility to maintain high ethical standards and should monitor their own work and that of colleagues.	This applies at any level of research including student investigations. All research projects need to be carefully assessed on ethical grounds before proceeding.

If the researcher feels that it is necessary to proceed without obtaining informed consent there are two further possible courses of action. One is to run a pilot study and interview participants afterwards about how acceptable they found the procedure. Alternatively role-play could be used where fully informed participants act out the procedures. The latter was used by Zimbardo (Zimbardo et al., 1973) in his famous prison simulation exercise.

Examples of ethically questionable research

The reader will probably be familiar with some examples of psychology research which have been attacked on ethical grounds and which have been defended on the basis of their contribution to knowledge. Social psychology is particularly rich in examples, although there are many others: for example, in developmental psychology (see Box 5I.3 in Part 5), bio-psychology (see Box 2I.2, in Part 2) and psychometrics (see Chapter 4). Solomon Asch's (1956) classic conformity experiments are well known, as is Milgram's research on obedience and Zimbardo's 'prison' experiment (see Chapter 28, for a detailed discussion of the ethical issues raised by these two studies) and there are a number of 'bystander apathy' experiments. These all involved some deception of the participants and, in some cases, considerable stress, but could be justified on the basis of what was learned about group influence.

Ethical guidelines in use

So what is the experience of psychologists in the real world of psychological research and practice? The BPS has guidelines and disciplinary procedures which can be used to consider complaints against its members and these may result in a charge being dismissed or a psychologist being reprimanded, expelled from the Society or encouraged to retrain. This applies only in extreme cases, so how do psychologists handle the less extreme day-to-day problems? In 1995, Lindsay and Colley surveyed 1000 randomly selected members of the BPS and asked them to describe an incident that they, or a colleague, had experienced in the last year or two that was ethically troubling. Of those surveyed, 172 respondents produced usable returns and these gave 263 incidents. Seventeen per cent described issues of confidentiality especially where nondisclosure of information could put another person at risk; 10 per cent of incidents were connected with research and were mainly to do with the issue of informed consent. A number of issues arose from Lindsay and Colley's survey.

Lindsay and Colley thought that applying the ethical guidelines raised one set of dilemmas but they also identified an unforeseen dilemma concerning psychologists' worries about whether they could do an adequate professional job in the face of financial cuts and lack of teaching resources. This, of course, is not covered by any code of ethics. Lindsay and Colley also noted that 37 per cent of the respondents said that they had no ethical dilemmas in their work and query whether this reflects the truth or simply a lack of awareness of ethical issues.

Approaching the real world situation from another angle, Lindsay (1995) examined the nature of the first 58 complaints reported to BPS investigatory panels in 1993–4 and found that most concerned client-related professional psychology (only eight were research related). This may seem like a small number but it is increasing and the fact that there were any complaints at all underlines the point that guidelines are only recommendations. Applying them is not always straightforward nor is it any guarantee that psychologists, their clients or research participants will be completely protected.

Finally, not all the complaints made against psychologists can be dealt with by the BPS since not all psychologists are members. At the very least, perhaps, potential clients could check that any practising psychologist they may encounter is registered with the BPS as a chartered psychologist (C. Psychol). This will confirm that the psychologist is genuine and properly qualified, and it will allow a client to refer any complaints they may have against the psychologist to the BPS, who will investigate and take the necessary action.

The wider responsibilities of psychologists

In this section, we will consider two of the ways in which psychological research may have wider implications:

- when it is applied in **clinical settings**;
- when it is into socially sensitive subject areas.

SELF-ASSESSMENT QUESTIONS

1. Summarize the main points of the BPS guidelines for research with human participants and comment on each one.
2. Assess the ethical standing of two pieces of psychological research.
3. Comment on psychologists' everyday experience of ethical issues.

If one of the main purposes of psychological research is to gain greater understanding of behaviour in order to improve the quality of human life, psychologists must, at some point, put their ideas into practice. The main settings in which they do this are educational, occupational and clinical. Ethical issues raised in psychometric testing are especially relevant in the first two and these were discussed in Chapter 4 along with other controversies surrounding its use. Here we will concentrate on applications of psychological research in clinical settings, using behaviourist techniques as a specific example, before going on to discuss the possible consequences of carrying out socially sensitive research.

Applications of research in clinical settings

People seeking help with psychological problems are often especially vulnerable. They may be emotionally upset. Their relationships with others may be under strain and they may be concerned about what seeking help says about their ability to cope. There is also the double handicap of both having a psychological problem and having to deal with other people's attitudes towards it which are not always well-informed, positive or helpful. Furthermore, this vulnerability should lead us to question whether the troubled person would really be able to give informed consent to a therapist.

In an attack on **psychotherapy** in general, Masson (1992) expressed doubts about whether psychotherapies were effective and concern about the financial, emotional and sexual power therapists could be seen as having over their clients. In defence of psychotherapy, Holmes (1994) argued that psychologists were no better or worse in these respects than other professionals such as medical doctors or lawyers. Nevertheless he recommends that all types of psychotherapy need regulatory bodies, standards and codes of practice and procedures for expulsion of the minority who do abuse their power. Currently, many different kinds of treatment are available. Clients may be confused about:

- The qualifications of who is treating them;
- Why certain procedures are being carried out;
- What to do if they have a complaint about any aspect of treatment.

Behavioural techniques

One group of therapeutic techniques that people may be offered arises from the behaviourist approach to psychology. Behaviourist approaches (often distinguished from nonbehavioural psychotherapies) are based on principles of learning gained from research with animals (see Chapters 1 and 6). One of the main assumptions of behaviourists is that many problems are the result of learning maladaptive habits. These are learned in the same way as **adaptive behaviour** and can be unlearned given the appropriate treatment. In spite of the demonstrable success of this approach, some critics accuse behaviourists of being manipulative, coercive and controlling, conditioning people against their will into behaviour patterns which they would not necessarily choose. How far is this image of the behaviourist psychologist justified?

Some writers find it useful to distinguish between behaviour therapy (based on Pavlovian or classical conditioning) and behaviour modification (based on Skinnerian or operant conditioning principles). Behaviour therapy includes relatively uncontentious techniques such as systematic desensitization for phobias and the use of electric alarm blankets for the treatment of persistent nocturnal enuresis (bedwetting). Ethical questions are more likely to be raised where pain or sickness is involved as in aversion therapy.

Aversion therapy A well-known example of the power of aversion therapy is provided by Lang and Melamed (1969). (This study is described in connection with applications of animal research later in this chapter and in Chapter 33.) In this case there is little doubt that aversion therapy saved the child's life. It is the means by which it was done that is in question. A more contentious use of aversion therapy is its

GLOSSARY

Clinical settings Settings (such as hospitals or private practices) where people are receiving treatment for a physical or psychological condition.

Psychotherapy Treatments for mental disorder which use psychological methods, such as behavioural therapies or psychoanalysis, rather than medical methods, such as the prescribing of drugs.

Adaptive behaviour Behaviour which is well-adjusted to the individual's environment and therefore is likely to aid survival.

potential to treat other conditions such as homosexuality, and this takes us into the realms of socially sensitive research (see later).

Token economies Stated simply, behaviour modification uses the idea that behaviour can be shaped and changed by the controlled use of reinforcement and punishment. One of the best known applications of behaviour modification is the 'token economy' (see Chapter 33).

In 1968, Ayllon and Azrin introduced an economic system into a ward of schizophrenics whereby tokens could be earned for desirable behaviours such as general hygiene, self-care and work on the ward. Tokens could be saved and exchanged for such things as TV viewing time, cigarettes and sweets, clothes or cosmetics. The principle behind this was that desirable behaviours would increase because they were rewarded. While it was no cure for schizophrenia, the frequency of social and self-care skills in long-stay patients did improve considerably. Not only does the behaviour of participants change, but often, the morale and enthusiasm of staff improves when they begin to see the beneficial effects of their efforts in implementing a programme.

What is ethically problematic about techniques that are so obviously beneficial? Objections centre on four concerns:

- The use of punishment or pain;
- Deprivation;
- Free will;
- Cure.

The use of punishment or pain It has been argued that punishment only has a temporary suppressive effect, and as it produces negative reactions in the learner, it is important to have controls against its use. To guard against the free use of electric shock (such as in aversion therapy), Miron (1968) suggests psychologists should first try the shock on themselves! This is a form of **countercontrol** (Skinner, 1971). (However, punishment is part of everyday life and to treat problem behaviour without it would not teach the patient much about how to cope in the real world.)

Deprivation In some behaviour modification procedures, it is necessary to deprive the experimental participant of reinforcers in order to encourage them to respond. Reinforcement becomes dependent on the appearance of certain behaviours as in token economies. Token economies fell foul of the critics when some of them appeared to infringe basic human rights: for example, when attendance at church, food or privacy were made contingent upon the performance of desirable behaviours. While such extreme measures may not be used today, the behaviourists argue that the level of reinforcement on a programme may be higher than that normally experienced by a patient and that not to use such techniques may deprive that person of the chance of rehabilitation.

Free will The criticism that behavioural techniques remove people's freedom to act as they wish is a problem for all deterministic approaches. Radical behaviourists would answer that it is not a question

of imposing restrictions where none existed before. Their theoretical position is that all behaviour is controlled. The ethical problem is not whether behaviour should be controlled but who should presume to take control of another and for what ends. In their eyes, behavioural techniques simply make systematic use of the processes already at work in everyday life and people's alarm at their methods results from recognition of how powerful this can be.

This does not mean that behaviourists are not concerned about the possibility that their methods could be used to exploit others. Accordingly, many behavioural therapists now turn much of the power to the client. For example, in systematic desensitization clients construct their own hierarchy of feared situations with the therapist's help and then have considerable control in the pacing of exposure to them. There are also strict codes of conduct for therapists. All these things help towards 'countercontrol'.

If the wider ethical implications of behavioural therapies are considered, then in terms of costs and benefits, they fare well. In certain areas of disorder such as sexual dysfunction, enuresis, nervous tics and habit disorders, treatment is very effective. It can alleviate suffering, improve the quality of life and even save lives.

Cure Behavioural therapies are often attacked as ethically unsound because they define 'cure' as disappearance of the problem behaviour. (To psychologists who see problem behaviour as a symptom of something more deep-rooted, all the behaviourist has done is to cover the real problem up.) Radical behaviourists can answer this in three ways:

- If it is accepted that the problem is the product of faulty learning, new learning does eradicate the whole problem.
- If the whole problem has not been cured, it should reappear in the form of a new symptom but symptom substitution seems to be comparatively rare.
- If behaviour is determined by experiences in the environment, then problem behaviour is the result of a faulty environment. It is society, not the individual, which needs to change. This is ultimately a political issue raising new ethical concerns about whether people are simply being treated so that they fit in better with an oppressive social system.

Of course, behaviourist techniques are not the only ones available and they are often mixed, to good effect, with other approaches (for example, as in cognitive behavioural therapy) to suit the client. In all cases, however, the consequences of cure can be far-reaching and the change in the client may have implications that affect their spouse, family and others.

(Note that behavioural therapies are discussed further in Part 7.)

Clinical settings – concluding remarks

There are many other types of treatment, not fully discussed here, where still more ethical concerns are important. For example, consider the problems involved in various kinds of biomedical intervention such as electroconvulsive therapy (ECT), the use of psychoactive drugs and psychosurgery (discussed in Chapter 33). Some would argue that these are strictly in the realm of **psychiatry** but the boundaries between psychology and psychiatry can be fuzzy, especially as the conditions treated manifest themselves psychologically.

Psychological knowledge could not advance without a certain amount of risk both to the researchers and their participants or to clinical psychologists and their patients. If in the end, as Hawks (1981) asserts, psychologists are working towards the ultimate goal of prevention of psychological problems, rather than cure, ethical risks are a relatively small price to pay along the way.

Ethical issues in socially sensitive research

Writing for the *American Psychologist* in 1988, Sieber and Stanley used the term **socially sensitive research** to describe:

> studies in which there are potential social consequences or implications, either directly for the participants in research or the class of individuals represented by the research. For example, a study

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Psychiatry Study and practice dealing with mental and nervous disorders, usually carried out by medical doctors who specialize in mental illness.

Socially sensitive research Studies in which there are potential social consequences for the participants or the class of individuals represented by the research.

> that examines the relative merits of day-care for infants versus full-time care by the mother can have broad social implications and thus can be considered socially sensitive. Similarly, studies aimed at examining the relationship between gender and mathematical ability also have significant social implications.
>
> (Sieber and Stanley, 1988, p. 49)

As Gross (1995) reminds us, 'we should regard every psychology experiment as an ethical situation' (p. 51), but some areas of research, such as those mentioned in the quote above, pose particular problems. Socially sensitive research is more likely than most to attract a great deal of interest from psychologists, the media, and hence the general public. There are plenty of examples where psychologists and their families have been threatened (as in the case of some animal researchers) or ostracized (as in the case of researchers into race and intelligence) as a result of their work. Howitt adds:

> Psychological research touching on important social issues will rarely have a calm passage. Tackling questions which are not simply difficult, but controversial, involving moral as well as other questions, will hardly enamour psychologists to each other, let alone the rest of the community.
>
> (Howitt, 1991, p. 149)

It is understandable, then, if psychologists choose to sidestep the issue altogether by refusing to carry out research of a socially sensitive nature. However, to avoid such research completely would leave them simply studying 'safe' areas and ignoring the thornier issues where their work could, perhaps, have an important and beneficial effect. Sieber and Stanley say:

> Sensitive research addresses some of society's most pressing issues and policy questions. Although ignoring the ethical issues in sensitive research is not a responsible approach to science, shying away from controversial topics, simply because they are controversial, is also an avoidance of responsibility.
>
> (Sieber and Stanley, 1988, p. 55)

Examples of socially sensitive research

Psychology is rich in examples of socially sensitive research. Studies of racial or gender differences, child-rearing practices, the impact of ageing or health-related issues such as drug abuse or sexual behaviour are just a few examples from many. Milgram and Zimbardo's research, referred to earlier, are also relevant here. Concerning negative social consequences for the individual participants, both researchers felt confident that there had been no long-term negative effects. Indeed, in some cases, change for the better had occurred. However, the studies could be considered to be socially sensitive in the wider effect they had on people who were more generally anxious about the implications of the findings. If ordinary people would do such extraordinarily unpleasant things in research situations, what hope was there that any of us would behave humanely in the real world?

Other examples of well-known socially sensitive research are discussed below.

Bowlby's research into attachment Bowlby's (1951) view that 'Mother love in infancy and childhood is as important for mental health as are vitamins and proteins for physical health' had a profound effect on social policy concerning childcare. He argued that, ideally, a child up to the age of five years should have the unbroken, loving care of its mother or permanent mother substitute. During World War II, the role of women had changed considerably as they joined the workforce in large numbers to help the war effort. State nursery care helped many of them to cope with the practicalities of single parenthood while their partners were in the forces or with widowhood if their partners were killed. After the war, many men were unemployed and it could be argued that women were under pressure to hand their jobs over.

Bowlby's findings were timely in this respect. Although they undoubtedly did a great deal of good in improving aspects of childcare, they also encouraged the belief that a woman's place was at home with her children. Sadly, the guilt and pressure this has caused both working mothers and fathers continues to this day and childcare facilities in the UK remain inadequate. However successful a mother is at mixing career and home life the confusion that persists will probably lead her to feel that wherever a woman's place is, it is probably in the wrong. (See also Chapter 19 in Part 5 for a further discussion of Bowlby's ideas.)

Psychoanalytic studies Freud's influence on Western thinking has been profound and many of his ideas have crept into our everyday language. He was one of a number of influential psychologists who emphasized the importance of early experience,

especially the role parents played in helping or hindering the infant or child as it moved through various stages of psychosexual development. These ideas placed a huge responsibility on parents, who would find themselves wondering what they had done wrong if the child subsequently developed problems. Another influence from Freud's theory has been the perpetuation of the idea that women suffer from 'penis envy'. This resulted in women being seen as incomplete and inferior compared to men and driven to recover their lost penis, preferably through giving birth to a male child. Finally there is the possible damage done by emphasizing infantile and childhood sexuality, which could have us believing that the accounts of some sexually abused children are based on fantasy. (A more detailed discussion of Freud's theory appears in Chapter 30.)

Intelligence Any research which links intelligence with genetic factors can have far-reaching consequences for different social classes or races. Burt used studies of identical twins who had been separated early in life and reared apart to support his ideas that measured intelligence was largely affected by genetics rather than experience. His thinking greatly influenced recommendations made in the Hadow Report (1926) for selection at 11 years old for different types of education: that is, in grammar, secondary modern or technical schools. Generations of children have been affected by the 11+ examination even though a controversy has long raged about whether Burt invented some of his data and manipulated it to achieve the desired results. Other psychologists, such as Eysenck (1973) and Jensen (1969), who have argued for a biological basis to differences in IQ test performance, are treading in similarly socially sensitive areas. (Controversies surrounding the use of IQ tests are discussed further in Chapter 21.)

Cautionary notes about socially sensitive research

The influence of prevailing views One alarming aspect of socially sensitive research findings is that their influence can be difficult to dislodge, even when there is little evidence for them or a wealth of evidence against them. One possible reason for people's immovability in this respect is that research can sometimes fit well with the prevailing zeitgeist (intellectual mood of the times) and so it can tell people, including psychologists, what they are ready to hear. Their subsequent actions, for example, in changing social policy, are then somehow legitimized by scientific research even though the reliability of that research may be less than perfect.

On the other side of the coin, psychologists can sometimes interpret socially sensitive research findings in ways that are not readily accepted. This is particularly likely to happen if the psychologists' (ideally) academic, objective view is not in tune with the institution for which research is being carried out. Levy-Leboyer (1988) illustrates this with an example of a psychological study carried out for the French telephone department into vandalism of public telephones. The telephone company believed most vandalism was caused by young criminals intent on stealing from those payphones that were likely to contain the most money. The psychologists' research gave a different picture. Instead, they suggested that the busiest phones were most likely to break down, often due to being full, and not return money. These were consequently most often damaged because it was the only way people (of all kinds) could express their frustration. The psychologists suggested phone booths should contain maps showing the nearest alternative phone and instructions about where to go for reimbursement. However, the telephone department disagreed with these findings (perhaps because they did not fit with their prevailing views about young vandals). They subsequently invested in strengthening the payphones and introducing a phone-card system.

Lack of preparedness for consequences Sieber and Stanley (1988) say that although existing ethical principles warn psychologists to be cautious when conducting socially sensitive research, there is no code of conduct explaining exactly how to be cautious or deal with the consequences. For example, although Milgram and Zimbardo would have realized they were researching into sensitive issues and were ready for some of the consequences, it is debatable whether they were fully prepared for the strength of reaction their findings caused. Mindful of the risks psychologists run in conducting such research, Sieber and Stanley identified ten ethical issues which are especially pertinent in socially sensitive research. In an attempt to help psychologists remain vigilant they also suggested ways in which the issues could cause problems. These are presented in Box 5.2.

Box 5.2 Ethical issues in socially sensitive research and reasons to be cautious (adapted from Sieber and Stanley, 1988)

Ethical issue	Reasons to be cautious
Privacy	The risk here is that some research may be used to shape public policy: e.g. AIDS research could, perhaps, lead to later breaches of privacy through requiring by law that certain people be tested for HIV.
Confidentiality of data	Breaches of confidentiality about, for example, being found to be HIV positive could have serious social and economic consequences for the individual due to general lack of understanding about how HIV is transmitted between people. Consider, for example, the consequences of breaching confidentiality of a participant who confesses to having AIDS but not telling their partner.
Sound and valid methodology	Findings based on unsound or invalid methodology may find their way into the public domain where the flaws and carefully qualified conclusions drawn from them may not be as fully appreciated as they might be between researchers. Such findings may be unwittingly or cynically used to influence public policy (possibly as in the Hadow Report – see text).
Deception	This really refers to self-deception in which research may lead people to believe in a stereotype formed from hearing about certain findings, e.g. hearing that boys are more able at maths than girls could lead girls into deceiving themselves that this is generally true of all girls including themselves.
Informed consent	It is always important for the researcher to obtain fully informed consent from participants but this is especially important in socially sensitive research.
Justice and equitable treatment	Research interests, techniques or findings should not result in some people being treated unfairly, e.g. through creating unfavourable prejudices about them or withholding something potentially beneficial, such as a particular experimental drug or educational technique from some but not others.
Scientific freedom	This must be weighed against the interests of wider society. Many scientists agree that science advances through open discussion and competition of ideas. Censorship of scientific activity is usually thought to be unacceptable but there are some kinds of research which should be, and are, carefully monitored.
'Ownership' of data	This is a complex and largely unresolved issue which involves trying to decide who can have access to scientific data. Scientists generally welcome openness but in the wrong hands or poorly understood, certain findings, especially socially sensitive ones, could be potentially explosive and used to manipulate, coerce or subjugate people.
Values and epistemology of social scientists	This refers to scientists' theoretical beliefs (and personal beliefs) about human nature and how best to understand it. Psychologists must recognize that their research is not value-free and that this may be reflected in the kinds of research question they ask, how they conduct research and how they interpret findings. To even ask the question 'What is the effect of race on IQ?' is to assume that race, IQ and any connection between them are of importance. The research by Levy-Leboyer, described in the text, illustrates how different values can cause people from an academic or business background to carry out and/or interpret research differently.
Risk/benefit ratio	While most people would agree that it is unacceptable to carry out research where the costs outweigh the benefits, risks and benefits may be that much harder to assess accurately in socially sensitive research so it is more than usually important that they are carefully considered.

Socially sensitive research – concluding remarks

Sieber and Stanley advise that, in general, research psychologists must always be acutely aware of their role in society and work hard to make explicit such things as their theoretical background and limits to the generalizability of their research when they publish it. They should also attempt to keep open clear lines of communication with the media and policy makers in order to minimize distortion or abuse of research findings, however difficult this may be.

Scarr (1988) concludes on a similar note. She argues that psychologists cannot afford to avoid socially sensitive research, even if they discover socially uncomfortable things. There is a desperate need, she says, for good studies that highlight, for example, race and gender variables. Her point is that, if we hide from such findings, we will never be in a strong position to tackle any of the inequalities that can be so damaging to certain groups of people. In his well-known book *The Social Animal*, Aronson (1992) ends a brief discussion of 'the morality of discovering unpleasant things' (p. 422) by agreeing that such research should not stop or be conducted secretly. Instead, he recommends that the public are carefully educated about socially sensitive research findings so that they are empowered to be vigilant about their abuse.

Howitt (1991) is, perhaps, less optimistic and more cautious. He agrees that it is important for psychologists to be well-intentioned and careful but thinks that they should recognize their limitations. He argues that psychologists can only give us a particular view of human nature and that such a view is affected by historical times and prevailing social values. For these reasons, it is impossible for psychological research to be objective, value-free and somehow capable of revealing the absolute truth. Its basis in research may give the illusion of objectivity but, ultimately, it may be no more valid than any other way of interpreting events. Psychologists should not, therefore, seek to impose a collective professional view on others about socially sensitive issues from a supposed scientific 'high ground'. He argues that psychologists are not yet in a position to influence social policy, which is probably why there is no recognized set of principles to guide socially sensitive research. Nevertheless he senses positive change ahead as psychologists become more aware of their wider social responsibilities and concludes by saying that:

> With the changes in the priorities of psychology, pressure may increase for a new sort of ethic – a social ethic, rather than an individual one orientated towards the individual research participant. (Howitt, 1991, p. 161)

SELF-ASSESSMENT QUESTIONS

1. What is meant by the term 'socially sensitive research'?
2. Identify two research areas which could be thought of as socially sensitive and explain your choice.
3. Outline three cautions that psychologists conducting socially sensitive research should observe.
4. What are the views of Scarr, Aronson and Howitt on socially sensitive research in psychology?

Psychological research and the use of animals

It is recommended that you read the introduction to Part 4 in conjunction with this section.

If we consider the strength of feeling that surrounds the use of animals in research, it can come as a surprise to learn that the existing legislation (Animals: Scientific Procedures Act 1986), which protects living vertebrates, is the first since 1876. During the 1980s, the promise of this new legislation gave a fresh impetus to debates about the use of animals in research and the arguments rage on to this day in psychology as well as in other disciplines.

It is important to be aware that most psychologists do not carry out research with animals, neither are they involved in using animals for product testing, farming or exhibition in zoos. In addition, not all animal research in psychology involves intrusive experimental methods. These points are not meant to imply that psychologists can dodge their responsibilities to animals and, as we will see, they have not tried to do so. Nevertheless, psychological research with animals has received its share of adverse publicity and the reader is encouraged to examine some of the readily available literature from the **antivivisectionist** and animal liberation movements and to consider their claims in the light of what is presented here.

The following questions will be addressed:

- What kinds of research do psychologists conduct with animals and what is its incidence?
- What practical issues are raised by animal research in psychology?
- What ethical issues are involved?
- How are psychologists attempting to resolve these ethical issues?

The type and incidence of animal research in psychology

One way to test the type and incidence of animal research is to survey psychological research publications. Accordingly, in the USA, Coile and Miller (1984) reviewed all the articles published in the American Psychological Society's journals in the preceding five years. They found that of the 608 articles examined, only 7 per cent reported research primarily on animals and no instances of the kind of research condemned by animal rights campaigners were found. Of course, published research does not cover all research but the authors still maintained that there is far more abuse of animals on farms and in zoos than in any research facility.

In the UK, Thomas and Blackman (1991) used a different method. They surveyed all the 67 higher education departments known to offer first degree courses in psychology and compared their findings with similar data collected by the British Psychological Society in 1977. Sixty-two of the departments responded to their questionnaire. It emerged that between 1977 and 1989 the numbers of vertebrates used in these departments dropped from 8536 to 3708 – a decline of 43 per cent – and the number of departments using animals dropped from 39 to 29. There was also a sharp decrease in experimental work on animals and a corresponding increase in observational studies. (As a matter of interest, in 1989, 92 per cent of the animals used were rats or mice, 6 per cent were pigeons or other birds and 1 per cent were monkeys.)

Thomas and Blackman call this decline in animal research disconcerting since animal models have proved so useful in psychology. They add that it is causing 'a fundamental shift in psychology's subject base' (p. 208). They doubt whether this is due to new legislation or the actions of pressure groups. Instead they suggest it is due to a shift in research interests. Indeed, Furnham and Pinder (1990) reported that although young people's attitudes to animal experimentation were generally positive, they were unwilling to do such research themselves. Thomas and Blackman conclude that undergraduates should be exposed to a positive and reasoned case in favour of animal research.

If you look through the rest of this book, you will find a wealth of examples of the kinds of animal research that interest psychologists. See, for example, work by Riesen (1950), Hubel and Wiesel (1962) Blakemore and Cooper (1970) in Part 3; Lorenz (1937), Savage-Rumbaugh (1990) and Goodall (1978) in Part 4; Harlow (1959) in Part 5. These examples cover a wide variety of methods and research interests, ranging from experimental analysis of brain function through to social behaviour in the natural environment, and all have made important contributions to psychology.

Practical issues in animal research

On what practical grounds do psychologists justify their use of animals?

Broadbent (1961) justifies the use of animals in psychological research in three main ways:

- **Continuity through evolution**. If it is assumed, as in Darwin's view, that all species are biologically related to each other through evolution, then it can be argued that their behaviour patterns are also related. Just as human anatomy (for example, the nervous system) can be understood by reference to other species, so can human behaviour. In many respects, humans differ from other animals in complexity only, so much can be learned about them by reference to other species.
- **Ethical restrictions on research with humans**. Many laboratory experiments that are carried out on animals would not be permitted with humans for ethical reasons. Examples are controlled interbreeding experiments (for research into genetic correlates of behaviour), various kinds of deprivation (social, maternal, perceptual, sensory), and brain and tissue research.

GLOSSARY

Antivivisectionist movement A movement that is opposed to the use of live animals in experiments.

I SAY, TREATED HUMANELY, IT'S PERFECTLY ETHICAL TO STUDY THEM.

- **Studying simpler systems**. One of the standard techniques of science is to study simpler systems in order to understand more complex ones. If we accept the notion of continuity between animal species (as in 1) then studies of the behaviour and nervous systems of animals could reveal a great deal about humans.

To these three points, two more can be added:

- **Convenience**. Animals make convenient subjects for several reasons. They reproduce rapidly so the effects of early experience and selective breeding can quickly be assessed, heredity and environment can be precisely controlled in nature-nurture research, and emotional involvement with animal subjects is less likely than with humans so the experimenter's objectivity is improved.
- **Generating hypotheses for human studies**. Animal experiments can be useful in the early stages of research as a means of generating hypotheses for subsequent testing on humans. Alternatively, research findings which are only suggestive or correlational in nature with humans could be tested experimentally on animals in order to isolate cause and effect.

Note that the above points are also discussed in the introduction to Part 4.

On what practical grounds can animal research be opposed?

Practical objections have two main themes. The first concerns whether it is reasonable to transfer (extrapolate) findings from animals to humans and the second concerns objections about the nature of the research methods used.

Antiextrapolationists emerge from a number of camps.

- **Uniqueness of humans**. Some argue that the human condition is unique: that is, that humans are qualitatively different from animals as well as quantitatively different. Humanistic psychologists subscribe to this view as do those who disagree with Darwin's theory of evolution or who object on religious grounds. Koestler (1970) wrote that to transfer findings from rats to humans was to commit the sin of 'ratomorphism', that is, to see humans and rats as being very alike when in fact they are very different. Another argument is that unique human attributes such as language and the relatively greater openness to learning and flexibility of human behaviour make comparisons between humans and animals less valid.
- **Anthropomorphism**. Others argue that there is a danger that researchers may be unable to adopt an objective view of their animal subjects so that they attribute them with human qualities for which there is no real evidence – this is known as anthropomorphism.
- **Animal rights**. Animal rights campaigners may well draw on cases where extrapolation of findings about drugs from one species to another has been inappropriate. The implication of this is

GLOSSARY

Antiextrapolationists In relation to animal research, a group who believe that it is not reasonable or desirable to apply the findings from animal studies to humans.

that, if physiological reactions to the same chemical differ so much between species, how can we be confident in transferring findings about behaviour from one to another?

- **Use of alternative opportunities**. Finally, it could be argued that the need to extrapolate could be avoided altogether if psychologists made full use of all the opportunities open to them. For example, there are plenty of cases of naturally occurring deprivation in infants and children so why subject laboratory animals to deprivation (as in Harlow's (1959) research with monkeys)?

Research methods

Regarding research methods, there is a pay-off to be considered between laboratory-based research and field research. One objection to laboratory experimentation concerns the degree of control exerted over events. There is no doubt that the precision thus achieved is a strength of the method, but it is also its greatest weakness because it leads us to doubt whether laboratory experiments have **ecological validity**. In other words, we should question whether the results would be meaningful in the real world. Field experiments might have greater ecological validity but, although realism is gained, control is lost. It is also tempting to think that studying animals in their natural environment is more acceptable than laboratory – based research, but Cuthill (1991) expressed concern that some techniques of field research could, if not properly controlled, seriously threaten the survival of a species: for example, where animals are captured and recaptured for tagging, or when decoy or dummy animals are used to test the animals' responses, or when the mere presence of observers is disturbing. Even relatively unintrusive naturalistic observation could affect certain species, so it needs to be carried out with the utmost sensitivity.

Practical applications of animal research in psychology

In 1985, Neal Miller published a detailed article describing research on animals which he considers to be valuable. This was, at least in part, a response to various animal rights groups who, he said, could mislead people with 'grossly false statements' about animal research. Rather than help animals, he says their actions impede research which is beneficial to both animals and humans. He suggests that their energies could be more usefully directed towards fighting for the conservation of endangered species or towards raising funds for refuges for abandoned or mistreated animals.

Benefits to animals

Miller notes the many ways in which animal research has benefited animals. For example, a better understanding of the behaviour of animals which damage crops or carry disease has led to the development of deterrents (such as specially designed 'scarecrows', Conover, 1982) thus doing away with the need for lethal control. Animal research has also helped in the preservation of endangered species and has done much to promote the health of domestic pets. It has also led to improvements in animal husbandry, animal welfare in zoos and on farms and in conservation of animal species and their habitats.

Benefits to humans

From a psychological point of view, research into animal learning stands out as being of great practical use to humans. Some examples will serve to illustrate this contribution.

Treatment of nocturnal enuresis In 1938, Mowrer and Mowrer used principles derived from Pavlov's experiments on classical conditioning in dogs to develop an alarm blanket for the treatment of persistent night-time bedwetting (nocturnal enuresis) in children. Apart from the obvious benefits to be had from the disappearance of the enuresis, Mowrer and Mowrer found that the children improve in other ways too. Teachers, for example, noted improvements in various aspects of such children's personality and behaviour even though they were unaware that the children had been enuretic.

Life saving Pigeons have been trained to detect coloured life rafts against the background of the sea

GLOSSARY

Ecological validity A situation where findings (from research) are meaningful in the real world.

using operant conditioning techniques derived from Skinner's work (Simmons, 1981). Pigeons can be trained to peck discs of different colours to earn food rewards and they will generalize this training to similar situations. In tests, their keen vision enabled them to detect 85 per cent of life raft targets compared to the 50 per cent detected by helicopter crews.

Behaviour change in educational settings Teaching machines, programmed learning and token economies, all derived from operant conditioning principles, have been successfully used in educational settings (see Chapter 6).

Behaviour change in clinical settings (see preceding section and also Chapter 33) Walker (1984) draws a distinction between behaviour therapy (based on classical conditioning) and behaviour modification (based on operant conditioning). Both are derived from experiments using animals and have been used to explain and treat some kinds of mental disorder.

The classic case of Little Albert (Watson and Rayner, 1920) who was conditioned to fear a white rat, spawned a variety of behaviour therapy techniques for the treatment of phobias, including systematic desensitization and flooding (implosion). Another technique derived from classical conditioning is aversion therapy. Lang and Melamed (1969) described how this had been used to save the life of a nine-month-old baby who was malnourished and dehydrated through persistent ruminative vomiting (regurgitation and rechewing of food). After all other treatments had failed, the therapists trained the infant to develop a conditioned aversion to vomiting by applying a series of one second long electric shocks to his calf whenever he showed signs of regurgitation. The infant learned not to vomit in order to avoid the shock, and subsequently, he made a complete recovery.

Behaviour modification also has many applications in clinical settings. In one case described by Isaacs et al. (1960), a schizophrenic man, who had been mute for years, was gradually trained to speak again by using behaviour-shaping procedures with chewing gum as a reinforcer. Token economies used in clinical settings are another good example of operant conditioning principles in practice.

Animal helpers Pfaffenberger (1963) was able to improve on the efficiency of guide dogs for the blind by selective breeding and by applying research findings concerning the most sensitive periods for learning in a puppy's life. Willard (1985) has trained Capuchin monkeys to be home helps for disabled and paralysed people. Monkeys can learn to serve drinks with a straw, place a magazine on a reading stand, open and close doors, operate lifts and carry out a variety of other tasks for the reward of food or fruit juice dispensed by the disabled person.

Miller (1985) concludes that there is a strong financial and moral case for continuing to back animal research and others would agree. He argues that the work of Lorenz (1937) on imprinting, for example, is linked to the well-known work by Harlow (1959) on deprivation of maternal contact in infant monkeys. More recent developments from this have led to improvements in the care of premature babies for whom contact comfort is now known to be an important factor in improving their survival rate.

Green (1994) uses the examples of diseases that are on the increase and whose nature and progress could be better understood through animal research. Alzheimer's disease is one such condition, which is increasing in incidence due to growing numbers of elderly people. It leads to long-term degeneration and affects not only the sufferer but the sufferer's family and carers. AIDS is another example where the effects are not confined to the affected individual. Although these are, strictly speaking, physical rather than psychological conditions, their impact reaches beyond the physical to psychological and social aspects of a person's life.

Ethical aspects of animal experimentation

Moral absolutism

The view that all animal research should be banned is an example of what Michael Eysenck (1994) calls '**moral absolutism**'. Another moral absolutist view would be that there should be no restrictions whatsoever on animal research. Both of these extremes would be difficult to live with and both seem to close the door to further debate. This is why psychologists often find themselves preferring '**moral relativism**':

that is, the view that, after weighing up various arguments, some research is permissible and some is not.

Moral relativism

Adopting a position of moral relativism, in 1985, the British Psychological Society and Experimental Psychology Society jointly issued some guidelines (most recent edition 1993) to assist in the planning of experiments on animals. In general, they say researchers have an 'obligation to avoid, or at least minimise, discomfort to all living animals'. The guidelines are summarized in Box 5.3. As we saw in the earlier discussion of ethical issues in research with humans, these are only guidelines and they can take us only so far. There will often come a point where professional judgment has to be made, especially where there are 'fuzzy' areas (for example, whether in some research the 'ends justify the means'). Some of the main contenders in recent debates are Gray, Ryder and Singer.

Arguing for animal research:

- Gray (1991) makes the case that to inflict suffering unnecessarily is wrong, nevertheless we sometimes have a special duty to protect our own species. This duty starts with our closest kin and then spreads to other humans and then to other species. He argues that the resulting behaviour is at least partly biologically based.
- This obligation to our own species creates a perplexing imbalance of interests. For example, it is possible to think of a number of cases where great pain and suffering in humans could be avoided if experiments (even painful ones) were carried out on animals.
- Although Gray accepts that some procedures could cause such immense suffering to animals that they should never be done, he still maintains that we have a moral justification to do other research where the ends justify the means. The dilemma comes in deciding at which point this is true.

Arguing against animal research:

- Ryder (1990) attacked Gray's views as **speciesist** (discrimination and exploitation based upon a difference between species) and aligns it with racism and sexism.
- Singer (1991) supported Ryder and added that, although there could be a biological basis to speciesism, as Gray had suggested, this did not excuse us from our moral obligations to other species as we are not bound to behave according to our biological make-up.

Towards a resolution of the debate

A number of issues have been raised in an attempt to contribute to a resolution of this debate.

Costs and benefits

Bateson (1986) says that costs and benefits of animal research should be considered by people on both sides of the debate. He suggests that a committee made up of research scientists, animal welfare representatives and neutral parties should consider three important issues in deciding whether a research proposal should be accepted. (Although these proposals relate to medical research they can easily be related to psychology.) The issues are:

- Certainty of medical benefit;
- The quality of the research;
- The degree of animal suffering involved.

If the first two are high and the third low, then the research would probably be permitted. See Figure 5.1. The committee's most important function would be in deciding how to proceed in different circumstances: for example, when animal suffering was likely to be high but the quality of research and the certainty of medical benefit were also high.

GLOSSARY

'Moral absolutism' The holding of an extreme view. For example, in relation to animal research, either that all animal research should be banned or that there should be no restrictions at all.

'Moral relativism' A compromise view. For example, in relation to animal research, that after weighing up various arguments, some research is permissible and some is not.

'Speciesism' Discrimination and exploitation based upon differences between species.

Box 5.3 A summary of guidelines for the use of animals in research jointly proposed by the British Psychological Society and the Experimental Psychology Society 1985 (most recent edition 1993)

1. **Regard for the law**. New legislation following the Government bill 'Animals (Scientific Procedures)' was passed in 1986. Its purpose is to control the use of animals in all kinds of scientific research including psychology, and it is the first review of such legislation since 1876. In the UK, *The Universities Federation for Animal Welfare Handbook* was, until now, the only set of guidelines in general use. It is the duty of all animal researchers to be familiar with the most recent legislation and abide by it.

2. **Ethical considerations**. If the research necessitates that animals should be confined, constrained or stressed in any way, the experimenter must be sure that the means justify the ends. If the knowledge to be gained is trivial, alternatives should be favoured.

3. **Knowing the species**. In order to avoid distressing animals unduly, the experimenter should have a sound understanding of how the species being studied responds to different situations. Some species may suffer more from a particular research situation than others, in which case the one least likely to suffer should be preferred. In any case, distressed animals do not make good subjects so it is in the experimenter's best interests to care for them properly.

4. **Numbers of animals**. Experimenters should have a sound knowledge of experimental design such that the minimum number of animals can be used to maximum effect. Statisticians may be able to advise on techniques of analysis which can give meaningful results from the fewest number of subjects.

5. **Endangered species**. For obvious reasons, endangered species should not be used unless the research is a serious attempt at conservation.

6. **Animal suppliers**. Experimenters should take care to use reputable suppliers so that breeding, housing and transport of animals is handled competently. If animals have to be trapped in the wild then it should be done as humanely and as painlessly as possible.

7. **Caging and social environment**. This should take into account the social habits of the species. Some are distressed by being isolated, others will be distressed by being caged together.

8. **Fieldwork**. Researchers observing animals in the wild must disturb them as little as possible otherwise their breeding patterns may be upset and their survival threatened. If capture is necessary, for marking or attaching transmitters, then a good knowledge of what the species can tolerate is necessary. Capture and recapture may be too stressful for the animal and certain kinds of marking intolerable.

9. **Studies of aggression and predation including infanticide**. Even though pain and injury may occur to animals in the wild, this is little excuse for staging it in the lab so any research into aggression and predation should be done through field studies. If staging of encounters is absolutely necessary, then the use of models or animals behind glass screens should be considered. In any case numbers should be kept to a minimum.

10. **Motivation**. In some experiments, animals may be motivated to behave by being deprived of food. Again, the needs of individual species should be understood. What amounts to a short period of deprivation for one could be intolerable to another. In addition, unchecked food intake is harmful to some animals.

11. **Aversive stimuli and stressful procedures**. These procedures are illegal unless the researcher has a Home Office licence and other relevant certificates. To get these the researcher has to justify the method, show that other techniques are unsuitable and show that suffering is kept to a minimum. It must be demonstrated that the animals' suffering is justifiable in terms of the scientific contribution of the research.

12. **Surgical and pharmacological procedures**. Again a Home Office licence and the necessary certification is required. The researcher must be experienced in this field and be able to train others appropriately. The researcher must know how to use anaesthesia techniques and how to prevent postoperative infection in vertebrates. If drugs are to be used, the researcher must be aware of their behavioural effects and toxicity levels and should conduct pilot studies where these are unknown.

13. **Anaesthesia, analgesia and euthanasia**. A Home Office licence and certification is also necessary here. The researcher must know how to use anaesthesia techniques and analgesics (postoperatively). If a subject suffers severe and enduring pain, euthanasia, as set out in the UFAW handbook, should be used.

14. **Independent advice**. If the researcher is in any doubt about an animal's condition during the research, the advice of an expert should be sought. Ideally this would be a qualified vet with no vested interest in the research.

15. In general, researchers have an 'obligation to avoid, or at least minimize, discomfort to all living animals'.

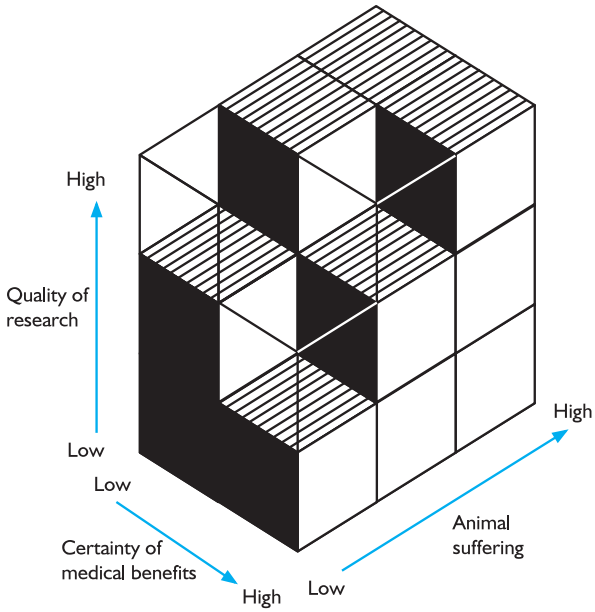

Figure 5.1 The Bateson model (Bateson, 1986)

Exercise 5.1

Look at the account of Harlow's research into deprivation in infant monkeys in Box 19.3, Chapter 19. Where would you locate this research on the Bateson model?

Do you believe that the psychological benefits of this research justified its being carried out? Justify your decision.

Animal suffering

At this point in the debate we are still skirting issues such as how we assess the degree to which an animal suffers in a research. Bateson (1991, 1992) again attempted to resolve this. He used findings from the Institute of Medical Ethics working party's investigations into animal suffering to develop several criteria to help researchers to judge whether the species they intended to study could feel pain. In summary, these are:

- Does the animal have anatomical, biochemical and physiological mechanisms similar to those in a human that are known to be related to the experience of pain?
- When stimulated in particular ways, does the animal behave in a similar way to humans who are thought to be in pain?
- Do analgesics (painkillers) alter this behaviour?

By comparing various species on these criteria, Bateson arrived at the conclusion that insects probably do not feel pain but that animals on the same evolutionary level as fish and octopuses and above probably do. If this is the case, we are then left with the problem of pitting animal and human suffering against each other.

Sentiency

Offering an alternative criterion to 'suffering', Ryder (1991) suggests that **sentiency** should be the basis of our decisions (by sentiency he means that a creature is capable of 'sensing', feeling and having consciousness.). Unlike Bateson, however, Ryder is not prepared to compromise and thinks that sentient animals should not be used in research at all.

Deservingness

Green (1994) offers a further consideration: that is, how 'deserving' humans might be in benefiting from animal research. He gives a range of examples to illustrate different grades of deservingness (note that, in all these cases, animal research could help us to understand and alleviate human suffering but in none of them are animals responsible for the human's plight):

- Problems that seem to be self-inflicted such as in smoking and lung-disease.
- Problems arising from how human society is organized: for example, in ways that encourage problems such as stress-related disorders or depression. Such problems are self-inflicted in a wider sense.
- Disorders that are not self-inflicted: for example, Alzheimer's disease.

Unfortunately, all of the four considerations described raise further problems. In Bateson's model, for

GLOSSARY

Sentiency Capability of 'sensing', feeling and having consciousness.

example, quality of research design may be relatively easy to judge but assessment of animal suffering and certainty of medical benefit is much more difficult. Similarly, there are problems in deciding how to judge suffering, sentiency and deservingness and we are not yet able to do so with real certainty. However, if animal research is halted until we can decide, the consequences could be catastrophic and we would find ourselves back in a position of moral absolutism. Morton (1992) suggests a compromise in that reports of research using animals always include accounts of any anticipated or unforeseen adverse effects so that they can be avoided or minimized in future research. Morton realizes that this leaves researchers vulnerable to attack but thinks that openness allows for broader consent from people who are not engaged in research.

Closing the gap between animals and humans

The arguments outlined so far focus on seeking dividing lines between species so that we can continue with research. Dawkins (1993) is critical of such approaches and calls them 'regrettable'. He says they support the idea of the 'discontinuous mind' which promotes the view that there is a yawning gulf between humans and other species, even closely related ones such as gorillas. Dawkins and others prefer to work towards closing the perceived gaps between species, thus making animal research less acceptable. Vines (1993, 1994) agrees with Dawkins and adds that some sort of consciousness in both birds and mammals is discernible through their behaviour but its role and nature remain a 'profound mystery' (p. 31). This mystery needs to be unravelled so that we can reexamine our conventional exploitative relationship with other animals.

One consequence of such approaches is the **Great Ape Project** – the brainchild of Professor Singer (see Singer, 1993; Singer and Cavalieri, 1993). Singer is supported by a group of 34 biologists, philosophers and writers whose purpose is to bring the great apes (gorillas, chimpanzees and orang-utans) into the human fold and give them the same moral rights including protection under the law. Three principles have been derived and these make up the Declaration of Great Apes:

- the right to life,
- protection of individual liberty,
- prohibition of torture.

Naturally, not all human rights extend to the great apes because of their different interests, but even to acknowledge those listed above would mean an end to the use of great apes in experimentation and as exhibits in zoos. In support of this, Singer quotes research into chimpanzee behaviour by Goodall (1978) and into chimpanzee language by Savage-Rumbaugh (1990) both of which help to close the gap. (Indeed, humans share 98.4 per cent of their DNA with both the common and pygmy chimp, a little more than with the gorilla.) Ironically, it is research with great apes that is likely to help the Great Ape Project along and, if we ever arrive at a solution, we then have the problem of what to do with the research animals. As BBC's Horizon programme 'Chimp Talk' (1993) showed, the ageing Washoe will need sensitive care for the rest of her life. The best that can now happen is that research with great apes is phased out and that the reasoning behind this leads to the phasing out of other animal research as well.

See Chapter 17 for a more detailed discussion of attempts to teach human language to animals.

Conclusion

We have seen that any kind of animal research, whether it is experimental or naturalistic, can affect animals in undesirable ways, yet to stop all animal research could be detrimental to both humans and animals. There are some alternatives to the use of animals in medical research, such as tissue research and in vitro techniques, but much of the content does not apply to psychological research which tends to focus on the intact, living individual. There is some scope for computer simulations of behaviour, particularly in the field of cognition but again, these do not suit all areas of enquiry.

Finally, it is worth considering the implications of the rationale that ultimately underlies all animal

GLOSSARY

Great Ape Project A project supported by biologists, philosophers and writers, the aim of which is to give the great apes (gorillas, chimpanzees and orang-utans) the same moral rights (including protection under the law) as humans.

research: that human life is more valuable than animal life. A dangerous extension of this rationale is to argue that some human lives, such as those of the terminally ill, the intellectually impaired and life prisoners, are less valuable than others. During World War II unscrupulous scientists used the 'value of life' argument to justify research on prisoners, and sometimes their own military forces, into surgical procedures, germ warfare and human endurance. Ironically, some of the findings from this research could prove immensely useful to humankind but the means by which it was gained are so repugnant that it is unlikely that they will ever be released. The dilemma about animal research remains and as, at present, there are few viable alternatives, it is likely to be with us for some time.

SELF-ASSESSMENT QUESTIONS

1. Outline practical arguments for and against the use of animals in psychological research.
2. Give three examples of animal research which has been of benefit to humans.
3. List 10 of the 15 ethical guidelines on animal research issued by the BPS.
4. Outline the views of Gray, Ryder and Singer on animal research.
5. Comment on the worth of 'cost–benefit analysis', suffering, sentiency and deservingness in helping to resolve ethical questions about animal research.
6. Describe some of the ways in which psychologists have tried to close the gap between animals and humans.
7. What alternatives are there to animal research?

Chapter summary

- The British Psychological Society (BPS) regularly publishes and revises general ethical guidelines and codes of practice regarding the use of human participants in research. Guidelines can be summarized under the headings of 'risks' and 'informed consent'.
- The risks that psychologists may encounter in their research include: psychological stress caused to the participant which psychologists have an obligation to avoid; a participant's feeling of coercion when offered payment for their cooperation; deception should be avoided and, if it is inevitable, participants should be debriefed; breaches of confidentiality should be avoided and participant's privacy preserved.
- Informed consent should be sought from participants, or if this is not possible, a pilot study or preliminary role-play should be carried out, interviewing participants afterwards to elicit their feelings about the experience.
- Examples of psychological research that has been ethically questionable include Asch's conformity experiments, Milgram's 'obedience' research and Zimbardo's prison simulation. Both Milgram and Zimbardo presented a spirited defence of their procedures, arguing that all precautions had been taken to avoid psychological harm to participants and showing an awareness of their responsibilities for the consequences of their findings.
- In 1995, Lindsay and Colley interviewed members of the BPS asking them to describe an incident they had experienced over the last year which was ethically troubling. Experiences described included those relating to issues of confidentiality and those to do with obtaining informed consent. It was noted that 37 per cent of respondents said they had no ethical dilemmas in their work and this raises the question of whether or not psychologists are fully aware of ethical issues.
- Complaints about psychologists to the BPS, though small in number, raises issues about how ethical guidelines can be implemented, particularly since not all psychologists are members of the BPS.
- Ethical concerns in relation to the use of psychotherapy in clinical settings have been expressed. These include doubts about whether psychotherapies are effective and about the financial, emotional and sexual power therapists could be seen as having over their clients. Many different kinds of treatments exist and clients may be confused about the qualifications of the psychotherapist and what to do if they have a complaint.

- Examples of behavioural therapies (based on Pavlovian or Skinnerian conditioning) are aversion therapy and behaviour modification. Behavioural therapies have been criticized for being manipulative, coercive and controlling, conditioning people against their will. Objections centre on the use of punishment or pain, deprivation, free will and their notion of 'cure'.
- However, many behavioural therapists now devolve much more power to the clients and in certain disorders, for example sexual dysfunction, enuresis and habit disorders, treatment is very effective.
- Other types of treatment that raise ethical concerns include electroconvulsive therapy, the use of psychoactive drugs and psychosurgery.
- It has been said that psychological knowledge could not advance without a certain amount of risk to researchers and their participants or to clinical psychologists and their patients.
- Socially sensitive research involves studies in which there are potential social consequences or implications for the participants or the class of individuals represented by the research: for example, studies of racial or gender differences, child-rearing practices, health-related issues such as drug abuse or sexual behaviour.
- Specific examples of socially sensitive research include Bowlby's studies in support of his 'maternal deprivation' hypothesis, Freud's work which stressed the importance of early experiences and the role played by child-rearing practices and Burt's twin studies in support of his view that intelligence was largely inherited, which influenced the policy on selection at 11 for different types of education.
- Dangers of socially sensitive research findings lie in the difficulty with which they may be dislodged even when there is little supporting evidence and also in situations where research findings are not in tune with the institution for which the research is being carried out.
- Scarr (1988) argues that psychologists should not avoid socially sensitive research, since there is a need for good studies that highlight, for example, race and gender issues in the quest for equality of opportunity. Howitt (1991) argues that psychologists are not yet in a position to influence social policy and should be aware of their limitations.
- The use of animals in psychological research raises ethical issues. Examples include work by Blakemore and Cooper (1970), Harlow (1959), Savage-Rumbaugh (1990). Animals: The Scientific Procedures Act 1986 is designed to protect living vertebrates.
- Justifications for the use of animals in research include the notion that if Darwin's evolutionary theory is correct, much can be learned about humans by studying less complex organisms; also, it has been argued that many laboratories' experiments carried out on animals would not be ethically acceptable with humans and because animals reproduce quickly, it is possible to assess the effects of early experience on later behaviour more easily than with humans.
- Arguments against animal research centre on the problem of anthropomorphism and also on the uniqueness of humans and the different physiological make-up of animals, which make it impossible to generalize from animal to human behaviour. Concern has been expressed that some kinds of field research might have an adverse effect on some animals and threaten the survival of a species.
- Miller (1985) argued that much animal research has been valuable not only in benefiting humans but also animals themselves. For example, animal research has done much to preserve endangered species and to promote the health of domestic pets. Miller concludes that there is a strong financial and moral case for continuing to back animal research.
- Animal research that has been of use to humans includes the application of Pavlov's classical conditioning experiments with dogs to the development of a treatment for nocturnal enuresis in children. Also, in line with Skinner's operant conditioning techniques, pigeons have been trained to detect coloured life rafts against the background of the sea much more effectively than helicopter crews.
- The BPS and Experimental Psychology Society jointly issued guidelines to assist in the planning of research with animals. An overarching principle is the researchers' obligation to avoid or minimize discomfort to all living animals.
- Gray (1991) argues that we have a moral justification to do research with animals, where the end in terms of the benefit to humans justifies the means. Ryder (1990) attacked Gray's views as 'speciesist' and aligned it with racism and sexism.

- Bateson (1986) suggests that a committee of research scientists, animal welfare representatives and disinterested parties should be formed to consider the costs and benefits of animal research in relation to three issues: certainty of medical benefit, the quality of the research and the degree of animal suffering involved. If the first two are high and the third low, the research would probably be permitted.
- Other issues to be considered in order to resolve the debate are ways in which the degree of animal suffering can be assessed in research; whether the creature is capable of 'sensing', feeling and having consciousness; how 'deserving' humans might be in benefiting from animal research.
- The dilemma about animal research remains and as at present there are few viable alternatives, it is likely to continue for some time.

Further reading

Gross, R.D. (1995). *Themes, Issues and Debates in Psychology*. London: Hodder and Stoughton. Chapter 10 gives a clear and detailed account of ethical issues in psychological research with humans and animals. It goes on to examine ethics in behaviour change, especially in clinical settings.

Fairbairn, S. and Fairbairn, G. (eds) (1987) *Psychology, Ethics and Change*. London: Routledge & Kegan Paul. This book concentrates on the moral dimensions of psychological practice in clinical settings. It is a multiauthor text with contributions from practitioners in a variety of fields.