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Contents

Introduction

One of the best known studies in the history of psychology is the research on obedience carried out by Stanley Milgram in the 1960s. In his research Milgram demonstrated the lengths to which people are willing to go just because someone in authority tells them to do something. The studies Milgram conducted also raised the issue of ethics in research, as some critics argued that he failed to take sufficient precautions to protect the integrity and wellbeing of his participants. At the same time, more than any other study in psychology, the findings of Milgram's research demonstrate *why* ethics are important.

As well as reading about Milgram's work and ethics, you will engage in an online activity to learn about the code of ethics concerning the psychological research that is conducted with human participants. You will also gain an understanding of the guidelines that govern the use of non-human animals in psychological research in a second online activity, and why psychologists conduct such research. You will have the opportunity of viewing two short films which will introduce you to the research of Alex Thornton who studies meerkats, and of Tetsuro Matsuzawa who works with chimpanzees.

This OpenLearn course is an adapted extract from the Open University course DE100 *Investigating psychology 1*.

Learning Outcomes

After studying this course, you should be able to:

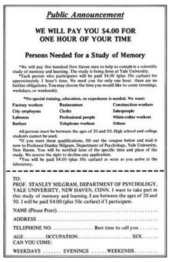
- describe the research of Stanley Milgram on obedience
- recognise the main ethics principles governing psychological research
- understand the ethics issues concerning research involving non-human animals
- appreciate the value of conducting research with animals.

1 Milgram’s obedience study

Milgram was one of the most innovative and productive social psychologists of his generation, who undertook a variety of studies that explored social psychological aspects of everyday life. However, he is largely remembered for one dramatic piece of work – the obedience studies. The best way to get inside this study is to imagine that you are one of the participants taking part in Milgram’s experiment. So read on with that in mind.

1.1 The set-up

It’s 1961 and you are arriving at the doors of the Psychology Department of the prestigious Yale University in the USA. The reason you are here is that you replied to an advert in the local paper asking for volunteers to take part in a study on memory. The advert (see Figure 1) offered a fee plus expenses and said that you would be paid on arrival at the laboratory.



Public Announcement

WE WILL PAY YOU $4.00 FOR ONE HOUR OF YOUR TIME

Persons Needed for a Study of Memory

*We will pay five hundred New Haven men to help us complete a scientific study of memory and learning. The study is being done at Yale University.

*Each person who participates will be paid $4.00 (plus 50c carfare) for approximately 1 hour's time. We need you for only one hour: there are no further obligations. You may choose the time you would like to come (evenings, weekdays, or weekends).

*No special training, education, or experience is needed. We want:

Factory workers	Businessmen	Construction workers
City employees	Clerks	Salespeople
Laborers	Professional people	White-collar workers
Barbers	Telephone workers	Others

All persons must be between the ages of 20 and 50. High school and college students cannot be used.

*If you meet these qualifications, fill out the coupon below and mail it now to Professor Stanley Milgram, Department of Psychology, Yale University, New Haven. You will be notified later of the specific time and place of the study. We reserve the right to decline any application.

*You will be paid $4.00 (plus 50c carfare) as soon as you arrive at the laboratory.

TO:
PROF. STANLEY MILGRAM, DEPARTMENT OF PSYCHOLOGY, YALE UNIVERSITY, NEW HAVEN, CONN. I want to take part in this study of memory and learning. I am between the ages of 20 and 50. I will be paid $4.00 (plus 50c carfare) if I participate.

NAME (Please Print)..

ADDRESS..

TELEPHONE NO. .... Best time to call you ....

AGE........ OCCUPATION.................... SEX......

CAN YOU COME:

WEEKDAYS .... EVENINGS ......WEEKENDS.........

Figure 1 The advert used to recruit volunteers for Milgram’s study

As you walk through the doors you are met by a serious-looking man in a laboratory coat who turns out to be the experimenter. He introduces you to a genial middle-aged man who is described as a fellow volunteer. The experimenter explains that the study will involve one of the volunteers taking on the role of a ‘teacher’ and the other taking on the role of a ‘learner’. As part of the experiment, the ‘teacher’ will engage the ‘learner’ in a simple memory task. The ‘learner’ and the ‘teacher’ will be in different rooms and will communicate through microphones (see Figure 2). The experimenter reveals that the study is designed to investigate the effect of punishment on learning. The ‘teacher’ will be asked to administer an electric shock to the ‘learner’ every time the latter makes an incorrect response on the memory task.

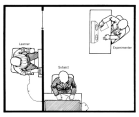


Figure 2 The layout of the experiment at the Yale laboratory

To select who will be the ‘teacher’ and who will be the ‘learner’, you draw slips of paper. You pick out the ‘teacher’ slip. You then watch as the ‘learner’ is strapped into a chair, and you hear the experimenter tell him that ‘although the shocks can be extremely painful, they cause no permanent tissue damage’. The experimenter now gives *you* a sample shock of 45 volts to show you what the ‘learner’ will experience during the study. The shock is unpleasant, but short of being painful.

The experimenter then takes you into the adjacent room and sits you down in front of an impressive-looking apparatus that will be used to administer the shocks (see Figure 3).

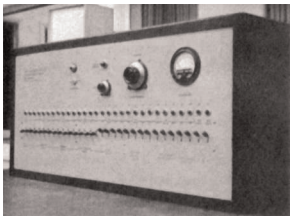


Figure 3 The 'shock generator' used in Milgram's experiment

The shock generator consists of a row of switches that run in 15 volt increments from 15 volts through to 450 volts. Under the label for each switch are some descriptive words, such as 'slight shock' (15 volts), 'moderate shock' (75 volts), 'strong shock' (135 volts), 'very strong shock' (195 volts), 'intense shock' (225 volts), 'extremely intense shock' (315 volts), 'danger: severe shock' (375 volts) and finally 'XXX' (435 volts). Suddenly, this looks quite serious and you probably hope that you don't have to go very far up the scale. This is especially so given that you received the 45-volt shock, and you know that this was unpleasant enough. The last switch on the shock generator administers an electric impulse ten times as strong!

In the first phase of the experiment, the experimenter asks you, the 'teacher', to read a series of word pairs to the 'learner' who is expected to memorise them (for instance, 'green-grass' , 'blue-sky', 'nice-day'). In the second phase, the test phase, you are asked to read out the first word of the pairs (e.g. 'green'), followed by four possible responses ('grass, hat, ink, apple'). If the 'learner' identifies the paired word correctly, you are to move on to the next word pair on the list. If the answer is wrong you have to tell the 'learner' the correct answer, indicate the level of punishment you are going to give them (starting with 15 volts), and flick the appropriate switch on the shock generator. For every subsequent incorrect answer, you are told to move one switch up the scale of shocks.

The experiment starts. To begin with everything is fine and the 'learner' gets most of the answers right. You have only used the shock generator a couple of times, and at this stage the shocks are mild. Then the 'learner' starts to get the answers wrong and you are moving up the shock scale into the 'strong shock' range. Although you cannot see the 'learner' you can hear him and as the shocks increase he starts to shout out. You have heard him grunt at the low voltage but now he is starting to ask to be let out. At 120 volts you hear him shout out in an agitated tone, complaining that he is in pain, and at 150 volts he asks to be released.

Suddenly, you feel uncomfortable and you decide to stop. The experimenter, the man in the grey coat, objects and asks you to carry on, in spite of the 'learner's' protestations.

Question 1

What do you think you would do in this situation? At what point would you stop? 200 volts? 150 volts? Would you respond to the cries of your fellow volunteer or would you complete the job you agreed to do and carry out the instructions of the experimenter?

How many people do you think would continue to follow the orders? At what point do you think people would stop?

Provide your answer...

Before Milgram carried out the study, he posed the same questions as in Question 1 to different groups of people, including ordinary members of the public, college students, psychologists and psychiatrists. He asked them to speculate on how far they thought most people would go if asked to administer shocks. Most ordinary people said that participants would generally refuse to administer shock, or at least not go very far beyond the point where the 'learner' experienced pain. Also, most said that participants *should* rebel, and that they should not continue beyond around 150 volts. Among the professional groups, there was widespread agreement that nobody taking part in the study go all the way.

You will be relieved to know that in the actual study carried out by Milgram, no person was hurt during the procedure, and the only actual shock administered was the 45-volt 'tester' given to the 'teacher'. In fact, the whole situation was staged. The role of 'experimenter' was played by a 31-year-old biology teacher. The 'learner', presented as a 'fellow volunteer', was in on the deception and was merely playing the part. In reality, he was a 47-year-old accountant, who was chosen for the role because he appeared mild-mannered and likeable. He was not the sort of person one would want to see hurt. The drawing of slips of paper was fixed to ensure that the 'naive participant' was always cast in the role of the 'teacher', and the 'shock generator' was simply a simulator. The sounds (the moans and cries) that the participants heard were a recording played from the adjacent room. Importantly, however, the deception was so good that participants believed that they were actually administering shocks. So the study presented an ingenious way of discovering how far people would be willing to go, just because a psychological experiment on 'the effects of punishment on learning' demanded it. Most people like to think that they (and people around them) would not go very far. But what happened when Milgram actually placed people in that position?

1.2 The results

In the first instance Milgram conducted the study on a sample of forty participants, all of them male. Each played the role of 'teacher' in the situation described in Section 1.1. Each participant went through the identical experimental procedure: all forty heard the same instructions, encountered the same 'experimenter' and 'learner', heard identical (pre-recorded) cries from the next room. The 'experimenter' in the grey lab coat offered the same words of encouragement. The sessions were filmed (Figure 4) and notes were taken by observers looking through an observation mirror.

Figure 4 Scenes from the Milgram study

Milgram found that, of the forty participants who took part in the study, all obeyed up to 300 volts, the twentieth switch on the shock generator. This is the point at which the 'learner' was heard screaming: 'I absolutely refuse to answer any more. Get me out of here. You can't hold me here. Get me out. Get me out of here.' However, only five of the forty participants refused to continue beyond this point. Four gave only one more shock before breaking off, with an additional five stopping between 315 volts and 435 volts. But as many as twenty-six continued to the end of the scale and administered the maximum 450 volts. This is despite the fact that, at 330 volts, they had already heard intense and prolonged screaming: 'Let me out of here. Let me out of here. … Let me out of here. You have no right to hold me here. Let me out! Let me out!' Shocks beyond 330 volts were accompanied by eerie silence. Nevertheless, twenty-six ordinary members of the public

from Connecticut administered the maximum shock and continued to do so until the experimenter called a halt to the proceedings.

As well as counting the number of participants who went all the way on the shock generator, Milgram also observed their reactions. Participants who took part in the study generally displayed signs of nervousness and tension. Many were visibly uncomfortable and probably would not have continued had they not heard the experimenter say things like 'Please continue', 'Please carry on', 'It is absolutely essential that you continue' or 'You have no choice; you must go on'. At the end of the study, many of the obedient participants heaved sighs of relief or shook their heads in apparent regret. Some even had laughing fits during the experiment, probably brought on by anxiety. Milgram (1963, p. 375) wrote that 'full-blown, uncontrollable seizures were observed for 3 subjects. On one occasion we observed a seizure so violently convulsive that it was necessary to call a halt to the experiment'. (You may have noticed that in this quote Milgram refers to people who took part in his study as 'subjects'. This was common practice in psychology in the 1960s. Today the word 'participant' is used instead as the word 'subject' is considered demeaning, and lacking in respect towards volunteers on whose participation much of psychological research ultimately depends.)

Do Milgram's findings seem plausible to you? Ordinary members of the public were prepared to administer electric shocks to another person on the mere (albeit persistent) request of a man in a laboratory coat. They did so despite the protests from the 'victim' and continued even after the supposed recipient of the shocks went quiet. Before the study, when Milgram asked his fellow professionals to predict how many participants would refuse to go all the way, they said that all of them would do so. In reality only 35 per cent did. In Milgram's study, the average voltage at which participants stopped shocking the 'learner' was 368 volts. Members of the public predicted that people would stop at around 140 volts. This is a remarkable discrepancy. It is therefore not surprising that Milgram's research went on to provoke considerable debate.

Box 1 Why do it this way?

Milgram's obedience work is remarkable, not only because of the important questions it sought to explore, but also because it is a fine example of good experimental procedure in social psychology.

The most important feature of any laboratory experiment is its *controlled* nature. Note that every person who took part in Milgram's research underwent an identical experience. All participants received the same instructions, encountered the same individuals (the 'experimenter' and the fellow 'volunteer') and heard identical cries and protestations from the 'learner'. To ensure consistency in the experimental procedure, Milgram even recorded the anguished cries in advance, and played them to participants from a tape.

This equivalence of experience across the forty participants was essential if meaningful comparisons were to be made. It ensured that any difference in behaviour observed in the study could not be attributed, for instance, to the fact that some participants heard louder or more desperate cries than others. For similar reasons, Milgram used the same 'learner' and 'experimenter' with each participant. He wanted to ensure that none of the results could be accounted for by differences in the personality or the demeanour of the confederates.

Another interesting aspect of Milgram's research is that he recruited participants from the general public, using a newspaper advert. At the time (and still now in many psychology departments) participants tended to be recruited mainly from among the student population. However, Milgram was interested in exploring the level of

obedience to scientific authority among people with no direct link to the university or research environment, so he recruited from the general public.

Finally, in Milgram's original study, all forty participants were male. Why do you think this was the case? This was not because Milgram wanted to exclude women from his research. He later conducted further studies in which he explored gender differences in obedience. In the initial study, however, he decided to control for the potential effects of gender on the findings by limiting the sample to men.

1.3 The variations

The findings of Milgram's original study highlighted the phenomenon of obedience, but it could not reveal what it is about the situation that made participants administer potentially lethal shocks to a fellow human being. To address this question Milgram carried out further research in which he introduced subtle variations to the original procedure. By examining the effects of these variations on levels of obedience, he was able to isolate specific aspects of the situation that might influence whether participants obey or not.

By the time Milgram completed his research in 1962 he had processed 800 people through nineteen variations of the original design. For instance, in one variation, Milgram introduced into the proceedings a dialogue about a heart attack. He wanted to see whether alerting the participants to the impact of the shocks on the 'learner's' health might reduce obedience. Note that all other aspects of the original study were preserved. Interestingly, the conversation about the heart attack made no real difference. Twenty six out of the forty participants still continued to 450 volts, although those who stopped did so at a lower voltage with five stopping as soon as the 'learner' asked to be let out. So, the reference to the heart attack made those who disobeyed do so earlier, but it did not prevent the more obedient participants from going all the way.

Milgram also varied the proximity of the 'learner' and 'teacher'. In one variation he put them in the same room, while in another he required the 'teacher' to hold the 'learner's' arm down on a plate to receive the electric shock. This manipulation had a clear effect. Milgram found that the closer you place the 'teacher' to the 'learner', the fewer shocks the 'teacher' is likely to administer. Equally, the further you place the 'learner' away from the 'teacher', the less the impact their pleas are likely to have.

Equally crucial was the presence of the authority figure. In one variation, the 'experimenter' in the grey coat pretended to have to leave the experiment owing to some emergency and was replaced by a person in plain clothes, who was not a scientist. Only 20 per cent of participants went all the way and gave the 'learner' 450-volt shocks. Similar results were obtained when orders were given by phone. The physical presence of an authority figure was therefore crucial.

In another variation Milgram placed two 'experimenters' in the room. One told the participants to continue (as in the original study), while the other told them to stop. In this variation, all the participants stopped giving the shocks very early on. This showed that an absence of a *clear* authority figure reduces obedience.

Milgram also conducted a version of the experiment in which he placed a second 'teacher' in the room, although this one was a stooge instructed to obey until the end. In this variation all the participants went along with the confederate and shocked up to 450 volts! So the mere presence of another obedient 'volunteer' made all the participants go all the way.

One of the main conclusions of Milgram’s work was that under certain conditions involving the presence of authority, people suspend their capacity to make informed moral judgments and defer responsibility for their actions to those in authority. When people are in this particular frame of mind, the nature of the task that they are asked to perform becomes largely irrelevant, and the main determinant of their actions is the commands of the authority figure.

1.4 Summary

- Milgram found that most people would administer potentially lethal levels of shock to another human being, just because they were told to do so by an authority figure.
- The use of a controlled experimental procedure enabled Milgram to explore different aspects of the situation that influence the extent to which people will obey authority.
- Two key factors in obedience are the presence of a clear authority figure, and the distance between the person administering the shock and the ‘victim’.

2 Milgram's study and ethics

At the beginning of Section 1 you were asked to put yourself in the shoes of one of the participants in Milgram's research. How do you think being a participant in the study felt? As you already read, many of the participants were visibly uncomfortable during the procedure. This is one of the reasons why the study created a storm, starting with a hostile review of the research in a newspaper, the *St. Louis Post-Dispatch*. The newspaper criticised Milgram and Yale University for putting the participants in such a stressful situation. It claimed that Milgram violated the rules of ethics which guide psychological research. The charge was repeated in academic circles, and led to Milgram's application to join the American Psychological Association being put on hold for a year. Milgram made a robust rebuttal of the charges and the debate about the issues led to the introduction of new codes of good practice for psychologists.

2.1 Ethics

Before we look at the arguments that swirled around the obedience study we need to consider what we mean by **ethics**. It all starts with *morals,* which are rules to guide our behaviour. These rules are based on a number of socially agreed principles which are used to develop clear and logical guidelines to direct behaviour. They also contain ideas about what is good and desirable in human behaviour. *Ethics*, in the context of psychological research, refers to a moral framework that governs what psychologists can and cannot do.

The first generally accepted code of ethics for research on humans was devised in 1947 as a response to the very events that provoked Milgram's research. During the Second World War (1939–45), under the Nazi regime, research was carried out on human beings that led to many deaths, deformities and long-term injuries. Revelations about this research were as great a shock for the post-war world as the death camps, because these acts of brutality and murder were conducted by doctors and scientists.

After the war the victors held a series of trials, in the German city of Nuremberg, of people who had taken part in the worst excesses of the horrors that had swept across Europe. Among them were twenty-three doctors involved in the brutal experiments. Sixteen of them were found guilty, of whom seven were sentenced to death. Significantly, the judgement included a statement about how scientists should behave when experimenting on other humans. This is referred to as the Nuremberg Code (see Table 1) and it became the basis for future ethical codes in medicine and psychology.

Table 1 The Nuremberg Code (1946)

1	**The voluntary consent of the human subject is absolutely essential**
2	**The experiment should yield fruitful results for the good of society, that cannot be obtained by other means**
3	**The experiment should be based on previous research so that the anticipated results can justify the research**
4	**All unnecessary physical and mental suffering should be avoided**
5	**No experiment should be conducted where there is reason to believe that death or disabling injury may be the result**
6	**The degree of risk should also be less than the potential humanitarian importance of the research**
7	**Adequate precautions should be in place to protect the subjects against any possible injury**
8	**Experiments should only be conducted by qualified persons**
9	**The human subject should always be at liberty to end the experiment**
10	**The scientist in charge should be prepared to terminate any experiment if there is probable cause to believe that continuation is likely to result in injury or death**

Source: adapted from Katz, 1972, pp. 305–6

Four key principles emerged from the Nuremberg Code. First, participants must be able to give **informed consent** to the procedure. Second, they must retain the *right to withdraw* from the study whenever they want. Third, the *welfare of the participant* must be protected wherever possible. The fourth principle is the most difficult to interpret because it concerns the *costs and benefits* of the study. It says that any risks to the participants must be greatly outweighed by the possible benefits for the greater good.

2.2 The case against Milgram

Before you go on to read about the criticism of Milgram's obedience studies, try to think through all the issues relating to ethics that are raised by this work.

Question 2

In what way were the participants deceived, or harmed? Did they have the right to withdraw? Do you think that in Milgram's case the ends justify the means? Do the benefits of the study justify the costs? Do you think that the results of the study are worth the pain and discomfort caused to the participants?

Provide your answer...

Among those who were highly critical of Milgram's study was fellow psychologist Diana Baumrind. She started her critique by noting the dilemma that all research psychologists face: 'Certain problems in psychological research require the experimenter to balance his career and scientific interests against the interests of his prospective subjects' (Baumrind, 1964, p. 421).

Baumrind challenged Milgram on whether he had properly protected the *welfare of the participants*. She used direct quotes from Milgram's original report to illustrate the lack of regard she said was shown to the participants. In particular, she noted the detached manner in which Milgram described the emotional turmoil experienced by the volunteers. For example:

> In a large number of cases the degree of tension [in the participants] reached extremes that are rarely seen in sociopsychological laboratory studies. Subjects were observed to sweat, tremble, stutter, bite their lips, groan, and dig their fingernails into their flesh. These were characteristic rather than exceptional responses to the experiment.
>
> (Milgram, 1963, p. 375)

In Baumrind's view, and in the view of numerous others, the levels of anxiety experienced by participants were enough to warrant halting the experiment. What is more, just because someone volunteers to take part in the study (i.e. gives informed consent at the start of the study), it does not mean that the researcher no longer has responsibilities towards them and their wellbeing. On the *principle of cost–benefit*, Baumrind challenged the view that the scientific worth of the study balanced out the distress caused to the participants. She acknowledged that some harm to participants might be a necessary part of some research – for example, when testing out new medical procedures – as in those cases results cannot be achieved in any other way. Social psychology, however, is not in the same game as medicine and is unlikely to produce life-saving results. The strength of the conclusions does not, therefore, justify harming participants. Milgram related his study to the behaviour of people who worked in the Nazi death camps and suggested that his study illuminated the way that ordinary people living ordinary lives are capable of playing a part in destructive and cruel acts. Baumrind dismissed this justification for the study and suggested there are few, if any, parallels between the behaviour in the study and the behaviour in the death camps.

Baumrind went on to make a further criticism by considering the effect of this work on the public image of psychology, and suggested that it would be damaged because the general public would judge that the participants were not protected or respected.

A further potential problem with Milgram's experiment concerns the participants' *right to withdraw*. Do you think that this principle, embedded in the Nuremberg Code, was sufficiently observed in Milgram's research? Recall that one of the key aspects of the experimental procedure was that whenever a participant demonstrated a reluctance to carry on with administering the shocks, they were told by the 'experimenter' in the grey coat 'you must go on', or 'you have no choice; you must go on'. It might be argued that telling a participant that they 'have no choice' but to continue with the experiment contravenes the right to withdraw, which is enshrined in the ethics code. To be fair, fourteen of the forty participants in the original study did withdraw, in spite of being told that they had no choice, so it could be argued that, ultimately, the participants did have a choice. It is just that making that choice was made more difficult by the presence of the 'experimenter' and by his prods. After all, the study was about obedience, and the instructions from the 'experimenter' were essential to the investigation. Exercising or not exercising the right to withdraw is what the study was about.

2.3 The case for the defence

Milgram made a series of robust defences for the study, starting with a response to the newspaper article that first raised concerns. He dismissed the accusation that participants were severely traumatised by the experience. He argued that 'relatively few subjects experienced greater tension than a nail-biting patron at a good Hitchcock thriller' (quoted in Blass, 2007). This was rather disingenuous, given his other descriptions of their reactions (see above). However, Milgram made a more measured response to the academic arguments. He pointed out, for instance, that he could not have known the outcome of the research before he started. As you already read, before embarking on the study he asked fellow professionals how they expected people to behave, and they predicted that participants would not continue to obey and administer severe shocks to the 'learner'.

More importantly, Milgram was not oblivious to the psychological needs of his participants and was aware of the potential harm caused by the study. Immediately after the study, its true purpose was revealed to the participants. They were interviewed and given questionnaires to check they were all right. A friendly reconciliation was also arranged with the 'victim' whom they thought they had shocked. This procedure, known as **debriefing**, is commonplace today, but this was not the case in the 1960s. So, in this respect at least, Milgram was ahead of the game in terms of ethics procedures (Blass, 2004).

Milgram also conducted a follow-up survey of the participants one year after the study, to ensure that there was no long-term harm (Colman, 1987). The results showed that 84 per cent said they were 'glad to have been in the experiment', and only 1.3 per cent said they were very sorry to have taken part. Milgram also described how the participants had been examined by a psychiatrist who was unable to find a single participant who showed signs of long-term harm. Morris Braverman, a 39-year-old social worker, was one of the participants in Milgram's experiment who continued to give shocks until the maximum was reached. He claimed, when interviewed a year after the experiment, that he had learned something of personal importance as a result of being in the experiment. His wife said, with reference to his willingness to obey orders, 'You can call yourself an Eichmann' (Milgram, 1974, p. 54).

Milgram's basic defence was that the harm to the participants was not as great as it might appear, and for some of them the change in their understanding of their own behaviour and the behaviour of others was a positive event. He makes a further defence that we have to treat all people with respect and that this involves allowing them to make choices even if those choices are not always for the best. In direct response to Baumrind's criticisms he wrote:

> I started with the belief that every person who came to the laboratory was free to accept or to reject the dictates of authority. This view sustains a conception of human dignity insofar as it sees in each man a capacity for *choosing* his own behavior.
>
> (Milgram, 1964, p. 851)

2.4 The judgement

So what do you think should be the final judgement on the ethics of Milgram's study? As you can see from the debate between Milgram and Baumrind, ethics is something that psychologists debate and often disagree on. Ethics principles, like all rules, are subject to interpretation and disagreement.

And yet, while individuals might have their personal view about whether a piece of research is ethical or not, what really matters is the judgment of institutions that regulate the profession. In the USA the regulatory body is the American Psychological Association. Its equivalent in the UK is the British Psychological Society. These institutions have ethics committees which issue guidelines and codes of conduct related to ethics in research and can reprimand researchers who can be shown to have violated the rules. At the time of Milgram's study, his research was investigated by the ethics committee of the American Psychological Association, who eventually came to the conclusion that it was ethically acceptable. Notably, however, Milgram's studies could not be carried out today, as the ethics guidelines have become more restrictive since the 1960s.

Finally, one further issue regarding Milgram's study is worth pointing out. Although the ethics of Milgram's research have been questioned, it could be argued that the obedience study, more than any other study in psychology, demonstrated *why* ethics are important. Recall that what Milgram's study showed was that ordinary people were willing to harm another human being just because they were told to do so by a person they believed was a psychologist, and because doing so was supposedly 'required by the experiment'. This shows that people generally are ready to give scientists the benefit of the doubt and go along with what they are doing, even when it involves harming individuals. This in itself illustrates how important it is to have some moderation of scientific activity, and have limits imposed on what scientists can and cannot do.

2.5 Summary

- Psychologists have a duty of care towards participants and must ensure that their wellbeing is preserved throughout a study.
- Participants must be asked to give informed consent before taking part in research and have a right to withdraw at any point.
- Milgram's obedience studies kick-started an ethics debate in psychology and highlighted the need for the development of more stringent guidelines for the conduct of research psychologists.
- Although Milgram's obedience study was judged to be ethical at the time of publication, it would be in violation of the strict ethics guidelines in place today.

Activity 1: Ethics in psychological research

This activity introduces you to the idea of ethics in psychological research. When conducting research, psychologists cannot do what they like – they must abide by a code of conduct. Above all, the aim of this is to protect the welfare of the people participating in the research. It is important that you grasp the main ethics principles and their importance, as you will be returning to them throughout this course. At the end of this activity, you will find a handout summarising the main teaching points. You should download this and add it to your files.

Research ethics

When a psychologist is working out how to undertake a particular study, it is important that they consider whether what they are doing and how they are doing it is going to be ethical. All universities and research organisations have panels that judge whether research is ethical or not, and in the UK psychological research also needs to meet the requirements of the British Psychological Society (BPS), who specify a code of ethics and conduct, which includes:

- Research should not include risks to the psychological wellbeing, physical health, personal values or dignity of participants.
- Participants should give informed consent before taking part in research.
- Participants should be able to stop participating in the research at any point.

The principles cover a number of other very important points, such as confidentiality, debriefing and protection. This activity is going to focus on the three principles above and you are going to have a go at applying them to a specific research project.

Task: Is it ethical?

On the following pages you will find a brief description of a psychological research study. Your task is to imagine you are on a research ethics panel that has been asked to consider the research being proposed. In each case, read the description and decide whether you think the study described is ethical in terms of the three principles described in the introduction:

- Research should not threaten the psychological wellbeing, health, values or dignity of participants.
- Participants should give informed consent before taking part in research.
- Participants should be able to stop participating in the research at any point.

Study 1

The ethics panel received the following proposal:

Study 1

Figure 5

This study is designed to discover what effect peer pressure might have on people's voting behaviour. Phase one of the study will involve adding a question stating 'which party did you vote for at the last election?' to the end of an in-class exam being taken by twenty undergraduate students. Phase two will take place a week later in a scheduled seminar, and consist of asking the same students, one after another, to tell the group as a whole whom they had voted for.

Think about the three ethics principles and how you might expect a psychological study to meet each one, and then decide whether you think this study meets each ethics principle.

Ethics principle 1 - Study 1

Wellbeing, health, values and dignity

○ Yes

This study threatened both the values and the dignity of the participants. UK law protects the right for voting to be secret for a good reason, so asking students how they voted in an exam and also to state this publicly contravenes the values attached to keeping how you voted a confidential matter. Putting students in a position where they might feel obliged either to state how they voted or indeed to lie about this as a result of peer pressure is also likely to have a negative effect on their dignity.

○ No

This study threatened both the values and the dignity of the participants. UK law protects the right for voting to be secret for a good reason, so asking students how they voted in an exam and also to state this publicly contravenes the values

attached to keeping how you voted a confidential matter. Putting students in a position where they might feel obliged either to state how they voted or indeed to lie about this as a result of peer pressure is also likely to have a negative effect on their dignity.

Ethics principle 2 - Study 1

Informed consent

○ Yes

At no point were the students told they were taking part in a research study, so they did not give their consent to participate.

○ No

At no point were the students told they were taking part in a research study, so they did not give their consent to participate.

Ethics principle 3 - Study 3

Right to withdraw

○ Yes

At no point were the students told they were taking part in a research study, so they did not realise there was any research to withdraw from.

○ No

At no point were the students told they were taking part in a research study, so they did not realise there was any research to withdraw from.

Question 3

Would you give this study ethical approval?

○ Yes

If you decided that the study did not meet any of the individual criteria above, you should not have approved it, even if it met all the others. A study should not be given ethical approval unless it meets all the criteria.

○ No

To be approved a study would need to meet all criteria. If it fails to meet just one, it should not gain approval.

Discussion

As is stated in this course, applying ethical principles is never that straightforward and there are often cases where people have differing opinions. Don't worry if you had different answers; instead concentrate on which aspects of the study we have linked to each of the three ethical principles.

Study 2

The ethics panel that considered Study 1 did not give approval. Following their feedback the psychologist revised the design of the study and resubmitted it.

Study 2

Figure 6

The revised study is to involve recruiting participants through a poster that will ask for volunteers to take part in a study on political communication. Volunteers will be informed that they have the right to withdraw from the study at any point and will be first asked to complete a 'consent to participate' form and then a questionnaire asking them about their background, likes and dislikes, and also whom they voted for in the last election. They will then attend a session that evening where the study will take place. The session will involve watching a party political broadcast and then answering questions in a group on how well the speaker communicated their ideas. At the end of the broadcast the researcher will apologise to the participants saying their questionnaires have all been accidentally lost, and ask them to state in front of the whole group of participants whom they voted for in the last election. By comparing how the participants said they had voted in the questionnaire and in front of the group, it will be possible to see if any had changed their mind as a result of being part of a group.

Think about the three ethics principles and how you might expect a psychological study to meet each one, and then decide whether you think this study meets each ethics principle.

Ethics principle 1 - Study 2

Wellbeing, health, values and dignity

○ Yes

The revised study still requires participants to reveal, in public, how they voted in the election. Putting students in a position where they might feel obliged either to state how they voted, or indeed to lie about this as a result of peer pressure, is also likely to have a negative effect on their dignity.

○ No

The revised study still involves the participants' being required to say how they voted publicly in front of a group of people; that they are still being asked the question at all can be seen as not respecting their values, and they are also still being put in a position where they might feel obliged to state how they voted, or indeed to lie about this as a result of peer pressure, and this is likely to have a negative effect on their dignity.

Ethics principle 2 - Study 2

Informed consent

○ Yes

Although the study now asks for volunteers and asks them to complete a consent form, this cannot be considered 'informed' consent because the researcher has not told them what the study is really about. Instead, the participants are being deceived about the real purpose of the study. A degree of deception is sometimes necessary in some forms of psychological research, but the degree of deception involved here is unethical as the participants are not being told in advance that they will be asked publicly about a confidential matter (voting behaviour).

○ No

Although the study now asks for volunteers and asks them to complete a consent form, this cannot be considered 'informed' consent because the researcher has not told them what the study is really about. Instead, the participants are being deceived about the real purpose of the study. A degree of deception is sometimes necessary in some forms of psychological research, but the degree of deception involved here is unethical as the participants are not being told in advance that they will be asked publicly about a confidential matter (voting behaviour).

Ethics principle 3 - Study 2

Right to withdraw

○ Yes

Participants in this study would be aware that they were taking part in research, and were also told explicitly that they could withdraw from the study at any point. One view could be that as they did not know the true nature of the study, they were not able to withdraw from it, but this issue is dealt with under 'informed consent'. Note that a study should not be given approval if it fails to meet *any* of the ethical principles.

○ No

Participants in this study would be aware that they were taking part in research, and were also told explicitly that they could withdraw from the study at any point. One view could be that as they did not know the true nature of the study, they were not able to withdraw from it, but this issue is dealt with under 'informed consent'. Note that a study should not be given approval if it fails to meet *any* of the ethical principles.

Question 4

Would you give this study ethical approval?

○ Yes

If you decided that the study did not meet any of the individual criteria above, you should not have approved it even if it met all the others. A study should not gain ethical approval unless it meets all the criteria.

○ No

To be approved a study would need to meet all criteria. If it fails to meet just one, it should not receive approval.

Study 3

The ethics panel were still not convinced and did not give approval to Study 2 either. Undeterred, the researcher revised the design of the study and resubmitted it yet again.

Study 3

Figure 7

The new study will involve recruiting participants through a poster placed on a college noticeboard, which will ask for volunteers to take part in a study on ‘social pressures and voting behaviour’. Volunteers will be provided with an accurate summary of the proposed study which will also explain that they have the right to withdraw at any point, and should feel free to do so. After having read the summary they will be asked to sign a consent form. The study will involve providing

participants with transcripts of fictitious election speeches from three candidates for Student Union President of a fictitious college. The participants will read the speeches and indicate on a form whom they would vote for. Following this, they will be told that an overwhelming number of students are voting for one of the other candidates and again asked to indicate on a form whom they would vote for.

Think about the three ethics principles and how you might expect a psychological study to meet each one, and then decide whether you think this study meets each ethics principle.

Ethics principle 1 - Study 3

Wellbeing, health, values and dignity

○ Yes

Participants in this study are not being asked to reveal how they voted in a real election and are also not having to reveal any shift in their voting behaviour to a group. This study is therefore very unlikely to have any negative effect on the participants' psychological wellbeing, health, values or dignity.

○ No

Participants in this study are not being asked to reveal how they voted in a real election and are also not having to reveal any shift in their voting behaviour to a group. We think this study is therefore very unlikely to have any negative effect on the participants' psychological wellbeing, health, values or dignity.

Ethics principle 2 - Study 3

Informed consent

○ Yes

The study now tells potential participants what is involved before asking for their consent. It is possible that telling the participants what the study is exploring will affect how they respond and is therefore unlikely to provide any useful results. However, judging the ethics of research is a different matter from judging whether the design of the study will produce useful results.

○ No

The study now tells potential participants what is involved before asking for their consent. You may feel that telling them the study is exploring whether they change their voting behaviour after hearing how others vote will affect how participants respond and is therefore unlikely to provide any useful results. You may well be correct, but note that judging the ethics of research is a different matter from judging whether the design of the study will produce useful results.

Ethics principle 3 - Study 3

Right to withdraw

○ Yes

Participants in this study would be aware that they were taking part in research, and were also told explicitly that they could withdraw from the study at any point.

○ No

Participants in this study would be aware that they were taking part in research, and were also told explicitly that they could withdraw from the study at any point.

Question 4

Would you give this study ethical approval?

○ Yes

As the study met all of the criteria, it should be approved.

○ No

As the study met all of the criteria, it should be approved.

Summary

In the end this research was approved by the ethics committee. One thing that is important to bear in mind is that obtaining approval involves a dialogue between the researcher(s) and the relevant ethics committee. This dialogue invariably involves an interpretation of the principles and a negotiation of what can be regarded as acceptable research conduct.

This activity focused on three key ethics principles, namely the right to withdraw, informed consent and the wellbeing of participants. However, ethics panels evaluating real research need to take into consideration a more complex set of issues.

Handout

Here is a PDF summary of the activity to print or save in your files.

Activity 2: Researching animals and humans

This activity explores the ethics of animal research and the guidelines that govern the use of animals (although, as you will see, not *all* animals) in psychological research.

Introduction

Psychology is often thought to be just about human beings. However, there are important areas of psychological research that involve non-human animals.

Research with non-human animals poses two important questions:

- How relevant are studies of non-human animals to human psychology? Aren't human beings unique and different from other animals?
- Is it acceptable to carry out experiments on non-human animals in the interests of science?

The tasks in this online activity give you the opportunity to consider these questions for yourself and clarify your own opinions and understanding of the issues they raise. The activity will help you to recognise why psychologists carry out research with non-human animals and identify the ethical issues involved in such research.

Figure 8

Why carry out research with animals?

You have been introduced to a number of ethics principles that apply to research on human participants. But why might psychologists want to do research with animals other than humans?

Here are some reasons. Select 'Reveal comment' to read a more detailed explanation:

Reason 1

To find out about the **evolution of psychological functions**.

Discussion

By studying how different species adapt their behaviour to their environments, and trying to identify innate factors in adaptation, it is hoped that the interactions of genes, environments and learning can be understood better, thus shedding light on how evolution may have shaped human psychological processes.

Reason 2

To better understand **psychological principles that apply across different species**.

Discussion

If similar processes are found in a range of species, this helps researchers to describe and (they hope) explain the basic principles of behaviour and other processes, such as attachment and learning.

Reason 3

To do experiments that would be **unethical with humans**.

Discussion

Arguably, as you will learn later in this activity, it can be seen as less problematic to use non-human animals in experiments that involve potentially harmful conditions such as deprivation, pain or confinement, or for example, to explore the effects of punishment.

Reason 4

To better understand what is **special about humans**.

Discussion

A substantial amount of research with non-human animals is carried out to identify psychological functions such as language and empathy, which other animals may not possess. Attempts to teach language to chimpanzees, for example, have met with only limited success, clarifying the specialised language abilities of humans.

The ethics of animal research

In this course you were introduced to a number of ethics principles that apply to research on human participants. These include informed consent from participants, ensuring their right to withdraw, protecting their welfare and evaluating the costs and benefits of the study.

Which of these do not apply to animals?

Of course, animals cannot give informed consent, and, given that most are kept in captivity anyway, the ‘right to withdraw’ does not really apply.

However, there are separate ethical guidelines for work with animals, which are also issued by the British Psychological Society.

They include provisions such as:

- The ‘smallest number of animals sufficient to accomplish the research goals’ should be used in any study.
- The costs and benefits of any study must be carefully evaluated.
- The welfare of the animal must be taken into account and researchers must ‘seek to minimise any pain, suffering or distress that might arise’ from any experiment.

- Researchers should use alternatives to animal research whenever possible, including data collected by other researchers, lower species (leeches, cell cultures, etc.) or, increasingly, computer simulations.

What emerges from these studies are the '3 Rs' of animal research. These are to:

- *refine* procedures to minimise suffering
- *reduce* the number of individual animals used
- *replace* animals with other alternatives.

These guidelines are interpreted and applied by ethics committees of research institutions and other bodies (including the Home Office) that grant special licences for keeping animals and using them in research.

Task 1: Evaluating the ethics of research

Guidelines

1. The 'smallest number of animals sufficient to accomplish the research goals' should be used in any study.
2. The costs and benefits of any study must be carefully evaluated.
3. The welfare of the animal must be taken into account and researchers must 'seek to minimise any pain, suffering or distress that might arise' from any experiment.
4. Use alternatives to animal research whenever possible, including data collected by other researchers, lower species (leeches, cell cultures, etc.) or increasingly, computer simulations.

Based on the guidelines on animal research, do you think an ethics committee would approve each of the following studies?

Question 1

1. A researcher at a UK university is applying for a licence to replicate Harlow's studies of deprivation. Infant monkeys would be raised in isolation with different types of 'surrogate mother' (inanimate objects that were either cloth-covered or made of wire with a milk bottle attached).

Do you think an ethics committee would give this study approval?

- ○ Yes
- ○ No

Discussion

An ethics committee, and the Home Office, would probably not give approval for this study to be carried out. Not only does it raise issues about animal welfare and

deprivation, but Harlow has already carried out this research, and it is highly unlikely that simply repeating the study would be considered a benefit great enough to outweigh the cost to the animals involved.

Question 2

2. A researcher in a UK animal research laboratory is interested in addiction. He is proposing a study in which a small radio receiver would be implanted into the brains of seventy-five rhesus monkeys. These receivers would allow the researcher to activate areas of the brain thought to be associated with 'pleasure'. The study would help shed light on brain mechanisms involved in addiction.

Do you think an ethics committee would give this study approval?

- ○ Yes
- ○ No

Discussion

Several issues would need to be considered here. One is the number of monkeys involved. Ethics committees must ensure that the smallest number needed is actually used in the study. It is unlikely that as many as seventy-five monkeys would be absolutely necessary, so the researcher would probably be asked to make a very strong case, or reduce the number. Also, the ethics committee would want to hear what would happen to the monkeys after the experiment. Would they be able to live normally after the experiment is over?

Question 3

3. A laboratory has been contracted by the Ministry of Defence to evaluate whether pigeons could be used in a guided missile to direct it towards an enemy aircraft in order to destroy it. The research would involve three pigeons being trained in a Skinner box to peck at targets on a radar screen.

Do you think an ethics committee would give this study approval?

- ○ Yes
- ○ No

Discussion

Believe it or not, a study such as this, which drew on the ideas of B.F. Skinner, was carried out in the USA during the Second World War, as part of the so-called 'Project Orcon' or 'Pigeon Project'. In this study there are no obvious ethical concerns (except for the more general issues of animal welfare), given that the pigeons' ability to guide a missile is simply being evaluated, and a standard Skinner-box procedure is being proposed. So the project would probably receive ethical clearance, as the committee are likely to consider it to involve a discrimination learning task using specific stimuli (target on a radar screen), and there are no obvious animal welfare issues involved. (The pigeons would not actually be used in the attacks, or at least that is not what this project is about.)

Question 4

4. A researcher has applied for permission to carry out an observational study in the Kalahari Desert of communication among pied babblers (wild birds) and with other

species. The study would involve two researchers wearing camouflage hiding in the bushes, observing the behaviour of the pied babblers and recording their mating calls.

Do you think an ethics committee would give this study approval?

- ○ Yes
- ○ No

Discussion

Research such as this is being done regularly around the world. While most of the ethical guidance that you have learned about so far in this activity has referred to laboratory work, the BPS also regulates observational work in the animals' natural habitats. Researchers would be asked by the committee to follow careful protocols to ensure that disruption to animals' lives is kept to a minimum. Disruption might have a detrimental effect not only on the birds' lives, but might also impact on the inferences that can be drawn from the study. This is because the observed behaviour might be a reaction to intrusion by researchers, rather than something that occurs naturally, in the wild.

Different animals, different guidelines

Although human beings are animals, for most people there is a strong conceptual division between human and non-human animals. Humans – or *homo sapiens* – are seen as being fundamentally different even from *pan paniscus* (the bonobo chimpanzee (Figure 9) – genetically our closest relative in the animal world).

Figure 9

It is this widespread belief that humans occupy a special place in nature that underpins the whole notion that it might be appropriate to carry out some types of research with non-human animals, where human research ethics would not permit such research to be done with humans.

As you have seen, it's not that there are no ethical considerations in research with other species, but rather that different, and less stringent, considerations apply.

There is, however, a further issue here. It is not just that humans are believed to be different from non-human animals. There are also differences *between* animals. In fact, what is meant by the word 'animal'? While there are many people who believe that the animal world ends with the bonobo chimpanzee, we rarely think about where it begins.

The final task in this activity encourages you to explore this question, to examine your own views and to critically consider the issues involved.

Task 2: Reflecting on different species

Figure 10

Have a look at the list below and consider the following:

1. Which one would you consider to be an 'animal'?
2. Which ones you would permit animal research on (with BPS guidance in mind)?

woodlouse
octopus
rat
coral
horse
crab
cat
mosquito
dog
scorpion
dolphin
gorilla
E. coli

For each answer try to think of reasons *why* you referred to some of these species as 'animals' but not others, or why you think that research on some might be more appropriate than others. Once you have indicated your responses, go to the next page, where you will find the current legal status of research on these species and read about some of the issues involved in determining which animals can and cannot be used in research.

Provide your answer...

Animal research and the law

Only one of the organisms included in the list is *not* an animal: the *E. coli* bacterium. At least, that is the straightforward scientific answer. However, you may be surprised to learn that in many countries the law regulates what is, and what is not, an animal – at least where research is concerned. Such definitions determine which species are covered by the guidelines for psychologists working with animals. According to the Animals (Scientific Procedures) Act 1986, which legislates for research in the UK, only species that are vertebrates (possess a spinal column) and one single invertebrate, the octopus (*octopus vulgaris*), are legally defined as 'animals' when it comes to research. The same category

of living things is also protected by the Animal Welfare Act 2006. Under this definition, the only ‘animals’ in the list are the rat, cat, dog, horse, dolphin and gorilla: the coral, woodlouse, crab, mosquito and scorpion are not legally ‘animals’. As for the second question, there are really no right or wrong answers. You were asked ‘which ones *you* would permit animal research on’ and that is a matter of personal ethics. However, you now know which of the species listed are protected by law (at least in the UK).

So there are many animals, or should we say ‘organisms’, that are not covered by any legislation, and for research purposes do not count as ‘animals’. There is no law protecting lobsters, spiders or mosquitoes (and especially not the *E. coli* bacteria) from being used in any way whatsoever in research. The British Psychological Society (BPS) does *recommend* that the ethics standards of work with protected species should also be maintained with organisms not covered by the relevant legislation, but this is just a recommendation.

Even among the vertebrates, further distinctions are made. Can you guess which animals receive extra protection? It is horses, cats, dogs and primates. In the case of primates, the reason is undoubtedly their genetic proximity to humans and the frequency with which they are used in research, but what about cats, dogs and horses?

The reason is that these animals are regarded by many humans as occupying a special place in the animal world, given that they are kept as pets. However, humans don’t always agree on which animals are pets. Whereas most people in the UK would not consider eating a dog, in parts of Asia dogs are considered a delicacy. Horses, donkeys and a host of other animals that people in some countries treat as companions adorn many a menu in other countries. So, some animals are a ‘man’s (or a woman’s) best friend’ whilst others are ‘vermin’ or ‘food’. In the same way, some species are regarded as ‘beautiful’, ‘cute’ or ‘intelligent’, while others are treated as less so. What all of this suggests is that differentiation within the animal world is not always based on strict scientific criteria, but rather on cultural sensitivities.

Figure 11

Summary

In this activity you were given an opportunity to consider a number of questions relevant to psychological research on animals. These included why psychologists study animals, how the rights of the animals used in research are protected, and how the appropriateness of animals for research is determined.

However, the controversy surrounding this research, especially the study on the effects of deprivation, had a different kind of impact on psychology. It made researchers more aware of the need to regulate research on animals and treat them more humanely. It was therefore in the aftermath of Harlow’s study that rules guiding psychological research on animals began to be tightened.

Activity 3: Researching animals

You have just learned about the ethics of animal research; now you have the opportunity of hearing from two psychologists working with animals in two films, *Researching Animals*..

Reading about research that psychologists have conducted with animals is often fascinating, but seeing how the research is conducted is even better. Film A (8 minutes) introduces the work of Alex Thornton with meerkats; in Film B (17 minutes) you will learn about Tetsuro Matsuzawa's work with chimpanzees.

First, watch the two films without interruption. After doing so, read 'Issues to consider' below, then watch them again, keeping these issues in mind. Make sure that you take some notes.

Video content is not available in this format.

Film A: *Researching Animals* (meerkats)

Video content is not available in this format.

Film B: *Researching Animals* (chimpanzees)

Issues to consider

- Alex Thornton has looked at how meerkats teach their young to catch scorpions. To what extent is this process similar to or different from that which human parents use?
- Tetsuro Matsuzawa found that, when it comes to completing the photographic memory task, chimpanzees are superior to humans. What explanation does he give for this finding? Can the performance of the chimpanzees be explained by conditioning?
- Think about the location where the two researchers conduct their studies. What are the advantages and disadvantages of researching animals in their natural habitat compared to captivity?
- Compare the reasons why Alex Thornton and Tetsuro Matsuzawa study animals. Which of them is interested in animal behaviour not just for its own sake, but also as a way of learning about human capacities?

Conclusion

This free course provided an introduction to studying sociology. It took you through a series of exercises designed to develop your approach to study and learning at a distance and helped to improve your confidence as an independent learner.

Glossary

Debriefing

A post-research interview designed to inform the participant of the true nature of the study. It may also be used to gain useful feedback about the procedures in the study.

Ethics

Principles that determine right and wrong conduct. In psychological research, ethics refers to the codes and principles that researchers should adhere to.

Informed consent

The principle in psychological research whereby participants must be given comprehensive information concerning the nature and purpose of the research and their role in it, in order that they can make an informed decision about whether to participate.

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Film A: *Researching Animals* (meerkats) (2010) (video), DSE141 *Discovering psychology*, Milton Keynes, The Open University

Film B: *Researching Animals* (chimpanzees) (2010) (video), DSE141 *Discovering psychology*, Milton Keynes, The Open University

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