

SAMPLE

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# PSYCHOLOGY

Student Book 1

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SAMPLE

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# ABOUT THIS BOOK

This book is written for students following the Edexcel International Advanced Level (IAL) Psychology specification. It covers the first year of the international A level qualification (AS level).

The book has been carefully structured to match the order of topics in the specification although teaching and learning can take place in any order, both in the classroom and in any independent learning. This book is organised into two units (Unit 1: Social and cognitive psychology and Unit 2: Biological psychology, learning theories and development), each with two topic areas.

Each topic is divided into chapters to break the content down into manageable chunks. Each chapter begins

by listing the key learning objectives and includes a getting started activity to introduce the concepts. There is a mix of learning points and activities throughout. Checkpoint questions at the end of chapters help assess understanding of the key learning objective.

The content for Unit 1 is applicable for Paper 1 (Social and cognitive psychology) and the content for Unit 2 is applicable for Paper 2 (Biological psychology, learning theories and development). Knowing how to apply learning to both of these papers will be critical for exam success. There are exam practice questions at the end of each chapter to provide opportunity for exam practice. Answers are provided in the online teaching resource pack.

## Topic opener

Introduce each of the key topics within each unit of the specification.

## Learning objectives

Each chapter starts with a list of key assessment objectives.

**UNIT 1 SOCIAL AND COGNITIVE PSYCHOLOGY**

**TOPIC A SOCIAL PSYCHOLOGY**

**2 TOPIC A SOCIAL PSYCHOLOGY**

**CHAPTER 1 OBEDIENCE**

**LEARNING OBJECTIVES**

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

- understand and evaluate theories of obedience, including agency theory and social power theory
- describe and evaluate Milgram's research into obedience
- explain factors affecting obedience and dissent, including individual differences, situation and culture.

**GETTING STARTED**

Imagine that you are in your school library studying for an important examination. You are working silently alongside other students who have exams too. The head librarian, a respected staff member at your school, approaches your table and asks you and the other students to leave your seats immediately as there is a special guest speaker who needs the library to give a lecture. You would rather continue to work in the library because it is the only quiet space in school and the exam is very important.

In small groups, discuss how you might react when the librarian requests that you leave. What factors would make you leave the library and what factors would make you stay? Compare your discussion to others in the class.

**KEY TERMS**

**conformity:** a form of social influence where our opinions, beliefs and/or behaviour are influenced by a majority

**minority influence:** a form of social influence where the opinions, beliefs and/or behaviour of the majority are influenced by a minority (individual or small group)

**obedience:** complying to the orders of an authority figure

**social influence:** how our opinions, beliefs and behaviour are influenced by the real or imagined pressure of an individual or group

**THE ORIGINS OF SOCIAL PSYCHOLOGY**

Social psychology developed from a group of people working in Europe in the mid-19th century, who were concerned with understanding the collective or group mind. In 1895 a French writer, Gustave Le Bon, observed that crowds displayed mob-like behaviour because individuals within it changed their behaviour because they were part of a group. The idea that an individual's behaviour can be changed by the presence of others is central to social psychology today.

The rise of experimental social psychology can be attributed to Floyd Allport (1924). His book outlined a manifesto for social psychology that argued for an experimental approach, leading to laboratories' investigation of social behaviour.

Today, social psychology investigates a range of social behaviours and attitudes such as persuasion and attitude formation, **social influence**, aggression and group behaviour. This topic focuses on **obedience, conformity** and **minority influence**.

**OBEDIENCE**

Obedience is a form of **social influence** where the behaviour of an individual is influenced by a real or imagined pressure from another. Obedience can be defined as compliance to the real or imagined demands of an authority figure. Yielding to these demands is considered to be obedience, while rejecting the demands is known as dissent or resistance to authority.

In our everyday lives we obediently follow the instructions of teachers, employers, police officers and the rules of society. Such obedience can prevent accidents and results in social order most of the time. However, there are times when obedience has led to horrific consequences. Notably, many atrocities that have been committed against innocent people have been the result of unquestioning obedience. During the Second World War, the Nazi party instructed the systematic killing of millions of Jewish people. This could only have been achieved through the collective obedience of many German soldiers who carried out these orders.

**AGENCY THEORY OF OBEDIENCE**

Stanley Milgram wanted to investigate conditions that could explain the atrocities committed during the Nazi control of Germany; in particular the defence claims made by many senior Nazi officers

Social psychology looks at how our relationships with others affect our own behaviour. This topic examines how those in authority influence our behaviour and how being in a group can influence the way we act. Some of us will obey authority and go along with the crowd, while others will question and resist authority. This means that some people are influenced by others, but there are individual differences between us which may explain defiance.

This topic examines factors that influence our tendency to obey and conform. We often observe others in social situations and try to guess why they behaved that way. For example, you may witness your friend acting differently with their family than they do with their friendship group. This may be because their family expects good behaviour, but the friendship group has different expectations. Social psychology involves a rigorous and scientific investigation of these attitudes and behaviours, using experiments and surveys to establish firm conclusions.

In this topic, you will also learn about specific research that has been conducted in social psychology. Finally, there will be the opportunity to conduct your own research into a topic relevant to this approach.

## Key terms

Key subject terms are colour coded within the main text and a definition is provided.

## Getting started

An introduction to the chapter, letting you think about the concepts you will be introduced to. Questions are designed to stimulate discussion and use of prior knowledge. These can be tackled as individuals, pairs, groups or the whole class.

**Activity**

Each chapter includes activities to embed understanding through case studies and questions.

**Exam practice**

Exam-style questions are found regularly throughout. They are tailored to the Pearson Edexcel specification to allow for practice and development of exam writing technique.

**Exam tip**

Tips give practical advice and guidance for exam preparation.

**44 TOPIC A SOCIAL PSYCHOLOGY CHAPTER 4 METHODS: SELF-REPORTING DATA AND SAMPLE SELECTION**

**SKILLS**  
CRITICAL THINKING, ANALYSIS, INTERPRETATION, COMMUNICATION

**ACTIVITY 4**  
Identify the sampling bias in the following examples:  
a) A researcher recruits student participants in the canteen at lunchtime to find out about attitudes towards A-level reforms.  
b) Participants volunteer to take part in a study about career choices by responding to an advert in a women's magazine.  
c) A researcher uses the telephone directory to gather a sample of participants for a study on health-related behaviour.  
d) Attitudes towards a new school uniform policy are gathered from students recruited from a school common room.  
Now suggest the likely impact of the sampling bias on the conclusions of each study.

**CHECKPOINT**  
1. Decide whether the following examples are gathering primary or secondary data:  
a) Marco was interested in research into conformity in the workplace. He read an article on how employees dress similarly to others in their workplace, and wanted to find out more so he read more articles. Name the type of data Marco used in his research.  
b) Philina was interested in different types of social power and how they can influence people to recycle and reduce waste. She decided to conduct a questionnaire to investigate whether people in her city were influenced by different public officials who promoted recycling and reducing waste. Name the type of data Philina used in her research.  
2. Identify the target population in these examples:  
a) Asking teachers at a school about their views on career food.  
b) Using a gym membership list to recruit participants for a survey about exercise.  
c) Stopping people in a street to take part in research.  
d) Investigating stress at work in an office building.

**EXAM PRACTICE**  
Carlos wants to test how compliant pedestrians are to signs which ask them to 'keep off the grass'. He designs a questionnaire to gather quantitative data from pedestrians who visit a local park.  
a) State one closed question that Carlos could use in his questionnaire. (1 mark)  
b) State one open question that Carlos could use in his questionnaire. (1 mark)


**TOPIC A SOCIAL PSYCHOLOGY CHAPTER 4 METHODS: SELF-REPORTING DATA AND SAMPLE SELECTION 43**

**RANDOM SAMPLING**  
A random sampling technique should ensure that everyone has an equal chance of being selected. A random sample can be achieved in several ways. Computers can produce random sequences of numbers, so every person in a target population can be assigned a number, and the computer-generated numbers can be used to select a sample if the numbers correspond. A simpler way would be to place the names of every member of the target population into a hat, shuffle them and draw at random. Once a random list of names has been generated, the participants can be contacted to see if they wish to take part in a study.  
Random sampling should result in a representative sample, although this may not always be the case because you can select an unrepresentative sample at random. Even if your random sample is representative of the target population, you still need to obtain consent from each participant selected. If they decide to not take part, you may be left with an unrepresentative sample in the end. Similar to stratified sampling, random sampling where consenting as each member of a target population needs to be identified.

**OPPORTUNITY SAMPLING**  
An opportunity sample makes use of participants who are readily available by asking them to take part. This can involve a researcher going to a student common room and asking people to take part or investigating passers-by in a street. Either way, the researcher has limited control over who is recruited and not everyone in a target population has an equal chance of being selected because they may not be available at the time. Asking people directly can be unethical as it puts pressure on them to participate.

**EXAM TIP**  
If asked to define a sampling method, you can gain more marks if you give an example. For example:  
Opportunity sampling (use participants who are available at the time, for example gathering students who are available in the common room at the time of the study and who agree to take part when asked).

**VOLUNTEER SAMPLING**  
Self-selected participants can be recruited by placing an advert in a newspaper or a student common room. Volunteers are self-selecting because they choose to take part; they are not approached and asked by a researcher, so it is considered a more ethical sampling method. However, the researcher has no control over who volunteers and often a certain type of participant may choose to take part, and only those people who see the advert and have the time to participate are going to volunteer. This can result in a sample bias which limits the generalisability of the study conclusions.



► Figure 1.4.2 People taking part in a survey.

**Checkpoint**

Questions to check understanding of the key learning points in each chapter. These are NOT exam-style questions.

**56 TOPIC B COGNITIVE PSYCHOLOGY CHAPTER 8 MEMORY: THE MULTI-STORE MODEL**

**KEY TERMS**  
mnemonic: a system for remembering something such as an association or a pattern of letters  
phonological similarity effect: similar sounding words and letters are acoustically confused in short-term memory, making them more difficult to recall

**ACTIVITY 2**  
You can investigate encoding in short-term memory by replicating the phonological similarity test. Here is a list of rhyming words and a list of non-rhyming words:  
• man, cab, can, cad, cap, mad, max, mat, cat, map  
• pit, few, car, post, sup, bar, day, hot, rig, bun  
Present the rhyming words to a group of participants using a projector or screen at a rate of one word every three seconds. When the word list has been presented, ask participants to recall the words in the correct sequence. It might be useful to ask participants to recall the words on a piece of paper numbered 1 to 10. Repeat the same procedure with the non-rhyming words. Compare the number of words recalled accurately in the correct position in the list.

**WIDER ISSUES AND DEBATES**  
The use of psychological knowledge in society  
Rehearsal, or the re-encoding of information, can reinforce learned information. Andrew Butler and Henry Roediger (2007) simulated a classroom environment where participants viewed three different lectures on consecutive days. Following each lecture, some participants were given a short recall test to refresh their memory and some did not receive these tests. One month later, the participants were tested for their memory of the lectures. They found significant evidence to suggest that the short recall tests reinforced knowledge for long-term memory of the lecture content. This evidence can be used in educational practice to help students learn more effectively.

**THINKING LIKE A PSYCHOLOGIST**  
Consider your own revision methods. Do you rehearse information over and over to remember it better? While rehearsal is one way of storing information in long-term memory, it is not the only method. Fergus Craik and Robert Lockhart (1972) describe an alternative framework for memory called the Levels of Processing Approach. Investigate this alternative approach further and consider how this different theory of memory could be used to aid your own revision.

**LONG-TERM STORE**  
Atkinson and Shiffrin (1965) explained that information in long-term memory is encoded semantically, according to its meaning. Alan Baddeley (1966) found that participants learning a sequence of semantically similar words recalled less well than participants learning a sequence of semantically unrelated words. Baddeley explains that this occurs because the semantically similar words are confused, because long-term memory relies upon semantic encoding.


**TOPIC B COGNITIVE PSYCHOLOGY CHAPTER 8 MEMORY: THE MULTI-STORE MODEL 57**

The duration of long-term memory is potentially a lifetime. Harry Bahrick et al. (1975) investigated Very Long-term Memory using a series of memory tests on the names and faces of students in high school yearbooks. Four hundred participants between the ages of 17 and 74 years old were tested. They found that identification of names and faces was 90 per cent accurate within 15 years of leaving school and between 70 to 80 per cent accurate 40 years after leaving school.  
The capacity of long-term memory is potentially infinite. Timothy Brady et al. (2008) showed participants 2,500 objects over the course of 6.5 hours. They were then shown pairs of objects and asked to identify which of the two objects they had seen. They found that object recognition was over 80 per cent.

**EVALUATION OF THE MULTI-STORE MODEL OF MEMORY**  
**STUDIES OF PATIENTS WITH BRAIN DAMAGE**  
Evidence to support the distinction, particularly between the short-term and long-term stores, comes from case studies of brain-damaged patients and experimental evidence from memory studies. Henry Molaison suffered amnesia following brain surgery for epilepsy, resulting in severe impairment to his long-term memory although his short-term memory was largely intact. This case study demonstrates that the short-term and long-term memory stores were differentially affected by the brain damage caused, perhaps because they are located in different regions of the brain. Similarly, Clive Wearing suffered long-term memory impairment following **encephalitis**, but his short-term store remained unaffected. In both cases the patient was unable to transfer information from the short-term store to the long-term store. Case studies such as these demonstrate the separation between short-term and long-term memory and support the distinction proposed by the multi-store model of memory. However, the subjects of case studies are unique and the nature of the brain injury sustained by each individual is equally unique, so we may not be able to generalise such a distinction based on individual cases alone. Despite this problem, amnesia research offers fairly convincing evidence for the distinction between short-term and long-term memory.  
Case studies of brain-damaged patients that are used to support the multi-store model of memory can also be used to highlight the overly simplistic view of long-term memory. Clive Wearing, musician and chorus master, could not recall past events in his life, but he could remember how to play the piano and conduct an orchestra. This suggests that long-term memory is not one single unitary store, but that perhaps we have different long-term stores for procedural memory of practised skills and abilities, and other long-term stores for factual information and autobiographical events.

**WIDER ISSUES AND DEBATES**  
**Ethical issues**  
Case studies of brain-damaged patients are often anonymised by using the initials of the patient rather than their full name, for example, until his death, Henry Molaison was only known as HM. This helps to protect patients' identities and maintains their right to privacy. In fact, the identity of Henry Molaison was fiercely defended by the researchers involved in his case. Despite being the most widely cited case study in the history of psychology, his identity was protected for over 55 years. However, in high-profile cases, such as Clive Wearing who was in the public eye, these individuals cannot be anonymised. This can lead to issues of privacy being violated as the research concerning the case is available within the scientific community and public arena.  
Case studies of brain-damaged patients also raise the question of consent. If someone is unable to remember that they gave consent, is this really consent and does this affect their right to withdraw?

**KEY TERM**  
encephalitis: inflammation of the brain causing damage to the structures of the brain



► Figure 1.8.4 Memory for practical skills may be stored separately from stores for factual information.

**Skills**

Relevant exam questions have been assigned key skills, allowing for a strong focus on particular academic qualities. These transferable skills are highly valued in further study and the workplace.

**Thinking like a psychologist**

These sections provide opportunity to explore an aspect of English language in more detail to deepen understanding.



# ASSESSMENT OVERVIEW

The following tables give an overview of the assessment for this course. You should study this information closely to help ensure that you are fully prepared for this course and know exactly what to expect in each part of the assessment.

Paper 1	Percentage of IAS	Percentage of IAL	Mark	Time	Availability	Structure
Social and cognitive psychology WPS01/01	40%	20%	64	1 hour and 30 minutes	January and June	<p>There will be three sections:</p> <p>Section A: Social psychology, totals 26 marks and comprises short-answer questions and one eight-mark extended open-response question.</p> <p>Section B: Cognitive psychology, totals 26 marks and comprises short-answer questions and one eight-mark extended open-response question.</p> <p>Section C: comprises one 12-mark extended open-response question on either social or cognitive psychology.</p>

Paper 2	Percentage of IAS	Percentage of IAL	Mark	Time	Availability	Structure
Biological psychology, learning theories and Development WPS02/01	60%	30%	96	2 hours	January and June	<p>There will be three sections:</p> <p>Section A: Biological psychology, totals 34 marks and comprises short-answer questions and one eight-mark extended open-response question.</p> <p>Section B: Learning theories and development, totals 34 marks and comprises short answer questions and one eight-mark extended open-response question.</p> <p>Section C: comprises one 12-mark and one 16-mark extended open-response question.</p> <p>The 12-mark question covers either biological psychology or learning theories and development and the 16-mark question covers both biological psychology, and learning theories and development.</p>

# INTRODUCTION TO PSYCHOLOGY

Psychology is defined as the science of mind and behaviour. But for any new student of psychology it is a different way of thinking about and understanding the world. Throughout this course you will explore how different psychologists view and explain a variety of human behaviours. You will learn the skills required to undertake psychological research, and the skills required to evaluate theory and research.

This section covers:

- approaches in the study of psychology
- theory, study and methodology
- common themes
- understanding how to evaluate
- applying your knowledge
- methods.

## APPROACHES IN PSYCHOLOGY

Many different approaches are taken in psychology to understand and study human behaviour. This can be a tricky concept as many subjects that you might have studied at GCSE involve learning just one answer, one fact or one perspective about a given topic.

However, in everyday life there can be many different ways of thinking about the same situation or event. For example, many different people might be interested in a garden: such as a biologist, an artist, a geographer, a gardener and a child. The garden remains the same but the individuals each have a different perspective on what the garden means to them and will have different interests in it. A biologist would be interested in the ecosystems that exist in the garden borders; the geographer might be interested in the gradient of the landscape; a child would focus on what games can be played in the space; form and colour would be important for the artist; and a gardener would be concerned with the plants and vegetables that are grown there. In the same way, psychologists have different perspectives on what it is important to understand and study about the human mind and behaviour.

Psychologists also differ in the way that they go about studying human behaviour. Using the garden metaphor again, a gardener would use tools, such as a fork and spade, the artist would use an easel and brushes and a biologist would throw a quadrat to measure quantities of species in an area. Psychologists also use different tools, referred to as research methods, to study human mind and behaviour: an experiment can be set up to test mental processing, an observation can be conducted to observe playground behaviour and a case study can be used to study an individual in detail. The research methods used are often associated with the approach taken to understanding human behaviour.

As you work through the course, you will examine these different approaches and the methods used to investigate humans and animals. It is important to learn the key features of each approach in order to understand their perspectives on psychology, and the research methods used to investigate mind and behaviour.

Table 1 shows how each approach views behaviour and the methods of investigation typically used.

TABLE 1: APPROACHES IN PSYCHOLOGY

Approach	Perspective taken	Methods of investigation/ methodologies
Social approach/social psychology	Understands human behaviour by examining relationships between individuals, groups, societies and culture. Social psychologists are interested in human behaviours such as obedience, conformity and minority influence.	Although they use many methods, such as experiments, observations and correlations, this book draws attention to the self-report/survey methods of the questionnaire and interview.
Cognitive approach/cognitive psychology	Understands human behaviour as a result of the way we process information. Cognition is our awareness and understanding of the world. Cognition therefore affects the way we respond to an event. Cognitivists are interested in studying topics such as memory, attention, language and intelligence.	Cognitive psychologists typically use experiments to investigate human mental processing. They also use case studies of brain-damaged patients to understand how injury can be linked to cognitive impairments, such as dementia.
Biological approach/biological psychology	Explains human behaviour as resulting from biological mechanisms such as the nervous and endocrine systems and ultimately genetics. Biological psychologists are interested in many types of normal and abnormal behaviour but this specification focuses on understanding aggression and body rhythms.	Biological psychologists often study the behaviours that would be unethical to manipulate or create. They use correlations to examine relationships between variables, such as aggression and hormones. They also use scientific methods such as brain scans to identify what parts of the brain are responsible for behaviours. Twin and adoption studies are used to investigate genetic inheritance.
Learning approach/learning theories	The learning approach, referred to as behaviourism, explains human behaviour as a product of a learning experience. We acquire behaviour through observation and imitation, association, and the consequences of reward and punishment.	Learning theorists/behaviourists tend to use animal experiments to understand the building blocks of learning in simple species, although human experiments have been conducted where a new behaviour is deliberately manipulated and studied. This book also focuses on the observation research method used to examine different behaviours.

These approaches vary considerably in their perspectives on the causes of human behaviour, the focus of their interest and the way in which they conduct investigations. But the different perspectives do not necessarily mean that there is only one right answer or explanation. We must consider instead the relative strengths and weaknesses of each perspective and the evidence they use to support their views.

## APPLICATIONS IN PSYCHOLOGY

In the second year of your course you will be required to apply your knowledge of approaches within specific applications of psychology. Applications are areas of psychology or specialisms, such as developmental psychology, health psychology, criminological psychology and clinical psychology. Within these applications you will come across the different approaches and methodologies again. You will have to use your underpinning knowledge of the approaches studied in the first year of the course and apply it to the context of your chosen application and clinical psychology.

## THEORY, STUDY AND METHODOLOGY

When you study psychology, you will see that there are various components that build up to the bigger picture of understanding human nature. These components can be broadly divided into theory, research study and methodology.

### WHAT IS A THEORY?

Psychology is concerned with explaining human behaviour. It is not possible to explain all human behaviour in totality, so psychologists tend to focus on specific aspects of mind and behaviour that interest them. For example, cognitive psychologists cannot explain all human cognition, as cognition itself involves memory, attention, language, intelligence and problem solving, etc. So a cognitive psychologist may focus their attention on one aspect of cognition, such as memory, and try to explain how memory works. Their explanation is called a **theory**. A theory is an explanation or set of ideas on how something works or, in the case of psychology, how some aspect of mind and behaviour can be explained, and how it can be used to predict future behaviour. In the context of being a science, psychological theories (as with any theory of the natural sciences) cannot be proven or stated as fact, but with supporting evidence they can become 'accepted' theories.

You need to be able to describe, evaluate or use your knowledge of theories. To *describe* a theory involves straightforward recall of the main concepts and ideas that need to be written in logical and coherent prose. To *evaluate* a theory you will need to explain how useful the theory is at helping us to understand the behaviour it claims to explain. To do this you will need to consider the strengths and weaknesses of the theory itself and any research evidence from studies that can be used to support or refute (or contradict) the theory. To *use* the theory requires an application of knowledge to explain a given scenario that is more than simply describing the theory. You will need to consider and select which concepts and ideas within the theory itself are important and can be linked to the scenario you are given and then mould them into an explanation.

### WHAT IS A STUDY?

A psychologist cannot just claim to have a theory or explanation without the evidence to support it. Psychologists gather this evidence by conducting a research **study** on human or animal participants to demonstrate how their theory might work. Studies are practical investigations that are conducted, analysed, written up and subsequently published in journals to build up a bank of knowledge concerning an aspect of human cognition or behaviour.

Research studies can take many different forms that adopt differing methodologies: clinical trials, experiments, observations, case studies and surveys, among others. They can be conducted over a short or long period of time and can differ in the type of data gathered.

You will need to be able to describe, evaluate and use your knowledge of research studies. To describe a study you will need to show knowledge of the whole study: the name(s) of the researcher(s), the aim of the investigation, the methodology used (including research method, procedure, sample, design, apparatus, controls, variables and ethics), the findings and conclusions drawn. To evaluate the study it is important to have a range of points to ensure

#### KEY TERMS

**study:** a practical investigation conducted by a researcher

**theory:** a set of ideas that are used to explain a behaviour

that both strengths and weaknesses of the research are included. You may be asked to draw on your knowledge of the study to explain a particular issue, or you can use the research study as evidence to evaluate a particular theory. To use the study as evidence for or against a theory, you only need to refer to the findings and conclusions to explain why it backs up or refutes a theory.

#### EXAM TIP

You will have to learn classic and contemporary studies in detail through this course. When revising these classic and contemporary studies it is important learn them in detail. You should aim for the following:

Aim(s): 2 marks – one detailed description for each aim

Sample: 2 marks – the size and composition of the sample

Procedure: 4 marks – four clear description points about how the study was conducted

Results: 3 mark – three clear description points about what the researchers found

Conclusion(s): 2 marks – one detailed description for each conclusion drawn.

You will also learn about many other studies which will form part of your evaluation of a theory. You do not need to learn these in the same depth, but you do need to clearly know what they did and what they found. Importantly, you should know how each study relates to the theory you are using it to evaluate.

#### WHAT IS METHODOLOGY?

Broadly speaking, methodology refers to a set of principles adopted by an approach or type of procedure used to conduct a research study. Although there are broader definitions of the term within philosophy and other disciplines, in psychology it tends to refer to the type of scientific procedures adopted to study a particular phenomenon. In psychology we classify scientific procedures and label them as research methods. The research method (or methodology) chosen to investigate depends on the nature of what is being investigated and the approach taken by the psychologist. For example, a cognitive psychologist would prefer to use laboratory experiments, case studies of brain-damaged patients, neuroimaging and observations as research methods because they are useful to study aspects of cognition, such as memory. A social psychologist, however, would prefer to use field experiments and observations to study human social interaction or surveys to uncover attitudes about different social groups.

Methodology can also refer to the way in which research was conducted: the procedure used in an investigation.

You will need to be able to describe, evaluate and use your knowledge of methodology throughout the course. Describing the methodology used involves outlining its key features, such as how and when it is likely to be used and the processes involved in the particular method. Evaluation will involve explaining the strengths and weaknesses of the methodology in achieving useful results; this evaluation tends to involve weighing up key elements or features of science (see below) such as control, objectivity, replicability and validity. You can also examine the ethical implications of each research method. Using your knowledge of methodology will involve applying your understanding of methods to a novel situation, perhaps to design an investigation.

#### COMMON THEMES

Throughout the whole course, you will be expected to comment on the credibility, validity, reliability, generalisability, objectivity/subjectivity of theory and research. Therefore it is useful to familiarise yourself with these issues as soon as possible.

## OBJECTIVITY/SUBJECTIVITY

A key feature of science is objectivity, that is, research is value free and not contaminated by personal opinion (subjectivity). A researcher should be detached and impartial in the interpretation of information gained during an investigation.

A useful example of subjectivity and objectivity is to consider the length of an object. If you ask people to estimate the length of an object, it is likely to vary between individuals because it is their own personal opinion – this is known as subjectivity. However, if you give people with a ruler and ask them to measure the length of an object, they are all likely to say the same length because the tool that they have used to measure length is objective. In psychology some methods are more objective than others, but it could be argued that no method can be purely objective because all require an element of interpretation.

The analysis of interview data, observations and other qualitative methods are more subjective because a researcher has to interpret and draw conclusions from data that are more likely to be affected by personal opinion. Similar to using a ruler, objectivity is best achieved by clear **operationalisation** of measurement, that is, defining exactly what is going to be measured and in what way it is to be recorded. In an observation, for example, making clear exactly what behaviours are to be recorded will improve objectivity; a researcher who is looking for how many times a door is opened for someone by another person will be more objective than a researcher looking for polite behaviour, because what constitutes polite behaviour is open to interpretation.

### KEY TERM

**operationalisation:** defining the variables specifically so that they are directly tested

## GENERALISABILITY

Generalisability refers to the extent to which the findings of research can be applied to other people and contexts, other than the ones directly involved in the research itself. Ecological validity is a type of generalisability which questions the extent to which we can generalise from an experimental situation to a natural setting. When we conduct research we cannot investigate everyone, so it is done on a sample of the population. For example, if we conduct research on university students, would these findings also apply to non-university students – the general population?

## RELIABILITY

Reliability refers to the consistency of research findings. In order to establish reliability, research needs to be replicated many times to ensure that the outcome was not a one-off. A one-off finding may be because of a methodological issue, subjectivity or that an unstable characteristic is being tested.

## VALIDITY

Validity is about whether the research is measuring what it intends to measure. For example, if you conduct an IQ test, you want the outcome of the test to accurately reflect the concept of intelligence. Validity is often compromised by poor operationalisation of what is being measured. For example, if you are intending to measure the aggression of children in a playground and you operationalise aggression as pushing, you may find it is not a valid measure of aggression if the children are playing tag, a game where children are supposed to push each other.

## CREDIBILITY

Credibility is a broad definition given to the trustworthiness of psychological research and the knowledge gained from such research. Credibility is based on a range of factors such as the scientific method, objectivity, reliability and validity of research. The credibility of published psychological research is largely assured by the process of peer review.

## EVALUATION SKILLS

In psychology you will need to learn how to adopt a critical approach to both psychological theories that have been proposed and psychology research that has been conducted. Being critical involves an awareness of the strengths and weaknesses of an argument or investigation, and an appreciation of the credibility of a theory or study. This critical approach will take some time to develop fully, but there are concepts that can be considered when evaluating psychological research.

### EXAM TIP

When evaluating theories and studies, it can be easier to write about the weaknesses rather than the strengths, but both must be considered fully for a balanced evaluation. It is important that you don't just list strengths and weaknesses unless you are asked to. Often a weakness can be countered by a strength or justification.

Learning how to evaluate effectively will help develop your skills without having to remember the precise evaluation for each individual study. However, it is important not to write a generalised evaluation: it needs to be tailored to the study or theory you are evaluating. For example, do not just say that the study was conducted in a laboratory, so was not like real life. Instead detail how the laboratory conditions do not reflect real life for the study, what controls were used that would not be found in an everyday context and, most importantly, what the implications are of these being unlike real life.

## EVALUATING PSYCHOLOGICAL THEORIES

If you were told that eating five apples a day made you healthy, would you believe it? Many people would. But as a psychologist you need to think critically about the claim, or theory, that eating five apples every day makes you healthy. There are a series of questions you could ask yourself.

- Is there any supporting evidence that eating five apples a day makes you healthy? In psychology you cannot make claims unless you have the evidence to back them up. Psychological investigations provide support for theories if they test them and find them to be correct. You should use psychological evidence when evaluating a theory to ensure its credibility. Without evidence, the theory is simply speculation. There is actually no evidence to suggest that eating five pieces of fruit and vegetables a day makes you healthy – how would anyone ever test this theory anyway?
- What kind of evidence is being used to support the theory? If there is evidence to support a claim, what sort of evidence is it? If the evidence comes from anecdotal reports of people claiming to be healthy because they eat five apples a day, you need to question the credibility of these reports. If the support for the claim comes from scientific research then you can be more certain that the evidence is credible.
- Is there any contradicting evidence for apples making you healthy? If unhealthy people eat apples, this may provide some counter-evidence for the claim. Again, the credibility of this evidence should be assessed. If the unhealthy people who eat apples also eat five bags of chips a day, this may discredit the evidence.
- Is the claim that eating apples makes you healthy useful in everyday life? You could certainly claim that it would do no harm, and even introduce healthy snack times to schools or promote free fruit in fast-food restaurants. Therefore it would have useful everyday applications if found to be a true claim.
- Are there any different explanations for being healthy – is it a valid claim? An alternative explanation could be that people who eat apples are more food conscious generally, so have



a healthier diet. This would seem a better explanation than apples making you healthy and is probably more grounded in truth.

- Is there anything that the theory fails to explain? Well, the apple claim cannot explain why people who eat five apples a day become unwell. This could not be predicted or explained by the claim, therefore it does not take into account why some people who eat apples are healthy and some people are not.
- Is it possible to test the theory that apples cause healthiness? The simple answer is no, this would not be practical or reasonable, you could not restrict a person's diet for an extended period of time (particularly not on apples alone), nor could you control everything else they ate, the amount of exercise, stress at work or school, or indeed any other variable likely to impact on their healthiness.
- Is the theory socially sensitive? That is, does it have a negative effect on the people involved or affected by the claim? Although the apple claim is unlikely to adversely affect anyone, an extreme view might be that it makes a judgement and implies that unhealthy people are responsible for their own health issues, or that people who cannot afford to buy lots of apples feel inferior to those who can. These are extreme viewpoints but the issue here is that, when a theory is proposed, it can have a negative effect on individuals in some way connected to the theory.

#### EXAM TIP

When writing evaluation points for short answer questions, such as 'explain one strength/weakness of theory X', you should make your strength/weakness a clear **Point, Explain** it fully and **Link** it back to the theory you are evaluating to explain the significance of the point you are making. This is known as the PEL evaluation structure.

Typically these questions will ask you to 'explain' a strength/weakness of a theory, or 'justify' why a theory is valid/credible.

However, when you are writing an essay, such as 'evaluate a theory', you can develop your strengths and weaknesses further by assessing their value/significance.

You can do this by making your **Point, Explain** your point fully, **Link** your point to the theory or study being evaluated (say why the point is relevant), and then **Assess** your point, and then finally **Link** the information back to the question by summing up its significance. Using the **PELAL** approach will develop your essay-writing evaluation skills and make help you make your point clear.

There is a range of command words that can be used to indicate that critical evaluation skills are needed to answer an essay question. Here are a few examples.

Evaluate...

Assess...

To what extent....

### EVALUATING PSYCHOLOGICAL RESEARCH STUDIES

We can use an example of a fictional study on the effect of stress on performance. Two participants were asked to come to a laboratory and complete a jigsaw puzzle to see if age affected performance. One participant was told they only had a limited time to complete the puzzle and the other was not. Their jigsaw puzzle completion time was recorded and they were told to leave without any explanation.

- Is making a participant uncomfortable or pressured an ethical thing to do? Not really: it is stressful and the participants were deceived because they thought it was a study about

ageing, and were not debriefed following the experiment. There is a range of ethical guidelines for research with humans that can be used to evaluate a research study; clearly this example violated some of the ethical guidelines.

- Can you generalise the findings of the study to others? In this example only two participants were used, and only one in each condition of the experiment. The experiment should have used a larger sample of participants to be sure that the findings could be generalised to others.
- Is the experiment reliable? To be reliable, it would have to be repeated over and over or on a larger sample of people to be sure the results were consistent. It would also need good controls over factors that might affect the results. In this example, variation between participants, for example resilience or spatial ability, could affect the reliability of the findings. This means that the study may not find consistent results. Some research is unique and cannot be repeated exactly, such as a case study. This means that the study cannot be replicated to check for consistent outcomes.
- Has the research been carried out in a natural environment? This research was conducted in a laboratory, so is artificial and does not reflect real behaviour in an everyday situation and therefore lacks ecological validity.
- Is the task ordinary? Perhaps it could be argued that solving a jigsaw puzzle is ordinary, but it depends on the aim of the investigation. In many experiments, participants are required to perform tasks that do not reflect the reality of normal everyday tasks; they lack mundane realism. This means that the study tells us nothing useful about everyday behaviour.
- Do the findings have any practical application? If a study can be used in an everyday context or has been used to develop treatments of intervention programmes then it has real world application.
- Is the task a useful measure of what was intended to be measured? In this case, is time taken to complete a jigsaw a good measure of performance? It is a restricted measure of performance in that it only measures the ability to recognise patterns and show reasonable spatial awareness. Therefore it is probably not a useful indicator of general performance.
- Are there any other research studies that do not support the findings of this one? Contrasting research may be useful to demonstrate that the research may not be credible.

#### EXAM TIP

Explaining the significance of your evaluation point is critical to ensure that you gain the maximum available marks for a short answer question, and to access the higher marking levels in an essay. Explaining the significance of a point can be tricky at first, this is because you really need to think about how the evaluation point affects a study or theory.

Consider these examples:

If you are giving a weakness of a theory which argues that the theory fails to account for a behaviour all of the time, then the significance of this point is that the theory is only a partial/limited explanation for the behaviour it explains.

If you are suggesting that a study lacks generalisability because the sample used was limited, then the significance of this point is that the study cannot usefully predict the behaviour of others in a similar situation.

### APPLYING YOUR KNOWLEDGE TO EXPLAIN A NOVEL SCENARIO

The point of studying psychology is so you can use your knowledge to explain a range of everyday behaviours. This involves applying your knowledge to a novel scenario to suggest why a behaviour is being displayed.

**EXAM TIP**

Throughout the examination you will be asked to draw upon your knowledge and understanding of psychological theories and concepts to explain an everyday behaviour described in a scenario. These application-style questions can be short answer questions or 'Discuss' essays.

For short answer questions you need to show knowledge and understanding of the theory or concept and be able to use this to explain a behaviour. The acronym IDEA may help frame your answer:

**I**dentify the concept/element of the theory – this could be a key term

**E**xplain the concept/key term by providing a definition

**A**pply this definition to the context

You can use the same writing frame for 'discuss' essays, but will need to do this using multiple concepts/key terms.

**METHODS**

You will learn about a range of scientific methods as you progress through your Psychology A level Student Book. You will find that the some methods are repeated in later topics in the specification. This table shows you where you can find information on each method within this book.

Method	Topic A: Social psychology	Topic B: Cognitive psychology	Topic C: Biological psychology	Topic D: Learning theories
Experiment		X		
Self-report: questionnaires and interviews	X			
Observation				X
Correlation			X	
Biological methods: scanning, twin and adoption studies			X	
Case study		X		
Content analysis				X
Ethical guidelines	X			
Animal research and ethics				X
Sample selection and techniques	X			
Hypotheses and variables		X		
Descriptive statistics	X			
Inferential statistics		X Mann-Whitney & Wilcoxon test	X Spearman's rho test	X Chi-squared test
Analysis of correlation data			X	
Scientific status of psychology				X
Analysis of qualitative data	X			

# TOPIC A

# SOCIAL PSYCHOLOGY

Social psychology looks at how our relationships with others affect our own behaviour. This topic examines how those in authority influence our behaviour and how being in a group can influence the way we act. Some of us will obey authority and go along with the crowd, while others will question and resist authority. This means that some people are influenced by others, but there are individual differences between us which may explain defiance.

This topic examines factors that influence our tendency to obey and conform. We often observe others in social situations and try to guess why they behaved that way. For example, you may witness your friend acting differently with their family than they do with their friendship group. This may be because their family expects good behaviour, but the friendship group has different expectations. Social psychology involves a rigorous and scientific investigation of these attitudes and behaviours, using experiments and surveys to establish firm conclusions.

In this topic, you will also learn about specific research that has been conducted in social psychology. Finally, there will be the opportunity to conduct your own research into a topic relevant to this approach.

# CHAPTER 1 OBEDIENCE

## LEARNING OBJECTIVES

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

- understand and evaluate theories of obedience, including agency theory and social power theory
- describe and evaluate Milgram's research into obedience
- explain factors affecting obedience and dissent, including individual differences, situation and culture.

## GETTING STARTED

Imagine that you are in your school library studying for an important examination. You are working silently alongside other students who have exams too. The head librarian, a respected staff member at your school, approaches your table and asks you and the other students to leave your seats immediately as there is a special guest speaker who needs the library to give a lecture. You would rather continue to work in the library because it is the only quiet space in school and the exam is very important.

In small groups, discuss how you might react when the librarian requests that you leave. What factors would make you leave the library and what factors would make you stay? Compare your discussion to others in the class.

## KEY TERMS

**conformity:** a form of social influence where our opinions, beliefs and/or behaviour are influenced by a majority

**minority influence:** a form of social influence where the opinions, beliefs and/or behaviour of the majority are influenced by a minority (individual or small group)

**obedience:** complying to the orders of an authority figure

**social influence:** how our opinions, beliefs and behaviour are influenced by the real or imagined pressure of an individual or group

## THE ORIGINS OF SOCIAL PSYCHOLOGY

Social psychology developed from a group of people working in Europe in the mid-19th century, who were concerned with understanding the collective or group mind. In 1895 a French writer, Gustave Le Bon, observed that crowds displayed mob-like behaviour because individuals within it changed their behaviour because they were part of a group. The idea that an individual's behaviour can be changed by the presence of others is central to social psychology today.

The rise of experimental social psychology can be attributed to Floyd Allport (1924). His book outlined a manifesto for social psychology that argued for an experimental approach, leading to laboratories' investigation of social behaviour.

Today, social psychology investigates a range of social behaviours and attitudes such as persuasion and attitude formation, **social influence**, aggression and group behaviour. This topic focuses on **obedience**, **conformity** and **minority influence**.

## OBEDIENCE

Obedience is a form of **social influence** where the behaviour of an individual is influenced by a real or imagined pressure from another. Obedience can be defined as compliance to the real or imagined demands of an authority figure. Yielding to these demands is considered to be obedience, while rejecting the demands is known as dissent or resistance to authority.

In our everyday lives we obediently follow the instructions of teachers, employers, police officers and the rules of society. Such obedience can prevent accidents and results in social order most of the time. However, there are times when obedience has led to horrific consequences. Notably, many atrocities that have been committed against innocent people have been the result of unquestioning obedience. During the Second World War, the Nazi party instructed the systematic killing of millions of Jewish people. This could only have been achieved through the collective obedience of many German soldiers who carried out these orders.

## AGENCY THEORY OF OBEDIENCE

Stanley Milgram wanted to investigate conditions that could explain the atrocities committed during the Nazi control of Germany, in particular the defence claims made by many senior Nazi officers



▲ Figure 1.1.1 We are socialised to be obedient to authority figures from a young age

### LINK

You may find it useful to read about Milgram's experiments (see pages 7–13) before you read on about agency theory.

### KEY TERMS

**agency:** when we act as an agent for another, e.g. obey orders

**autonomy:** acting on one's own free will/exercising self determination

**confederate:** a researcher/actor who pretends to be a participant of a study

**hierarchical:** a system of social organisation where there are leaders and those who follow

**moral strain:** experiencing anxiety because you are asked to do something that goes against your moral judgement

**socialisation:** the process by which we learn the rules and norms of society through socialising agents, such as parents and teachers

that they were simply 'obeying orders'. He developed a series of experiments (that are now classics in psychology) to investigate obedience under these conditions.

Milgram conducted his obedience research using volunteers to investigate whether they would yield to an authority figure and administer electric shocks to an innocent **confederate** of the study. The result of his research led Milgram to conclude that we are all potentially capable of complying with the demands of someone in authority, even if this means hurting another person. Using this conclusion as a basis for his agency theory, Milgram believed that we are all capable of extreme obedience, which must serve some societal function.

### Socialisation of obedience

Milgram observed that human society was **hierarchical** in nature, with many at the bottom of the hierarchy and a few at the top giving instructions on how everyone is to behave. He thought that this hierarchical social organisation must have some stabilising function – to

create social order and harmony within the group. Obedience within this social organisation is necessary to maintain social organisation and ensure society's survival. Without obedience there would be challenges to the social order, resulting in chaos and societal breakdown. Therefore it is in our own best interests to be obedient to maintain social order.

Exposure to authority figures within the family and education system nurture obedience through the process of **socialisation**. Parents and teachers are primary socialisers and use a system of rewards and punishments to encourage obedience and discourage dissent in young children. Sanctions and rewards are also institutional within the educational and legal systems, and so perform an important role in ensuring that as individuals we learn to be obedient.

### Agency and autonomy

Within the hierarchical structure of a social group, there must be a mechanism that ensures obedience. Milgram proposed that humans exist in two different psychological states:

**autonomy** and **agency**. In an autonomous state, a human is self-determining, acting according to their own free will, and guided by moral conscience. However, when given instruction by an authority figure, humans shift into an agentic state, where they see themselves as acting as an agent for the authority figure. In the agentic state, we act on behalf of the authority figure and may comply with their demands, which is what we have been socialised to do.

For the most part obedience is functional and does not cause harm. However, when we are ordered to behave in a way that goes against our moral conscience (for example, when we are instructed to do something that will cause harm to another), we shift into the agentic state.

We may also displace the responsibility for our actions onto the authority figure making those demands. Milgram believed that the agentic state could explain why humans are capable of committing atrocious acts.

### Moral strain

Milgram observed that many participants in his obedience study experienced **moral strain** when ordered to harm another person. Moral strain occurs in the agentic state when people are asked to do something they would not choose to do themselves, and they feel is immoral or unjust. This moral strain results in an individual feeling very uncomfortable in the situation and, in extreme circumstances, they show anxiety and distress. In Milgram's research he witnessed the participants exhibit signs of moral strain in the form of nervous laughter, sweating and trembling.

**EXAM TIP**

'Discuss' essay questions require you to demonstrate knowledge and understanding independent of application of knowledge. You should explain what a theory says before you apply your understanding of the theory to the context or scenario you have been given.

**LINK**

Burger (2009) also found evidence for agency theory – this study is discussed on pages 62–65.

**KEY TERMS****malevolent authority**

**figure:** someone who uses their authority for harmful purposes

**reductionist:** theory that explains a complex behaviour by isolated factors or a single cause, which ignores other important factors. The theory can be argued to be simplistic

**LINK**

See page 16 for a detailed explanation of personality and obedience/disobedience.

**LINK**

Latané (1981) is explored in detail later (see pages 24–25).

**WIDER ISSUES AND DEBATES****Nature–nurture**

Milgram was attempting to establish that obedience was a consequence of the situation in which a person finds themselves (environment). Milgram describes obedience as an ingrained behaviour established through the process of socialisation. Obedience is triggered and amplified by social situations. This suggests that obedience is largely a product of nurture.

**Evaluation of Milgram's agency theory**

Milgram's first obedience experiment demonstrated that 65 per cent of participants were willing to obey an authority figure and potentially seriously harm an innocent confederate of the study. This provides evidence for agency theory because the participants showed overt signs of moral strain (anxiety) when given an order, yet they still obeyed the authority figure, suggesting they were acting as agents. When he debriefed the participants, many reported that their behaviour was the responsibility of the experimenter, and that they had not wanted to do it. This provides evidence for the concept of displacement of responsibility and agency.

During the Vietnam War, a small village called My Lai was approached by American soldiers who were ordered to shoot the occupants, who were suspected of being Vietcong soldiers. Lieutenant Calley instructed his division to enter the village and shoot, despite no return of fire. The American soldiers massacred men, women and children in the village that day after being ordered by Calley. In his court martial following the incident, Calley claimed to be just following orders. Agency theory can be used to explain the reasons given by people for their actions afterwards as being because they were 'just following orders'.

This justification has been cited in many real-life cases of atrocities and offers some support for agency theory involving a displacement of responsibility. It also suggests a practical application of agency theory. We can train people to recognise **malevolent authority figures** and guard against destructive obedience, for example, implementing a 'whistleblower' policy so that individuals can anonymously report anyone trying to get others to comply with harmful orders.

Charles Hofling et al. (1966) staged a study in a hospital setting. A confederate doctor telephoned a nurse working on a ward late at night, asking her to administer twice the daily dose of a drug to a patient. The drug was fake and harmless. Against hospital policy, the stooge doctor informed the nurse that she would sign the prescription later. A total of 21 out of 22 nurses followed the doctor's orders and attempted to give the medication to the patient. Several of the nurses justified their behaviour as being a result of the hierarchy of authority at the hospital. This supports agency theory because the majority of nurses displaced their personal responsibility onto the doctor, even though they did not know the doctor and could not verify their identity.

A weakness of agency theory is that it does not explain individual differences as to why some people obey and some do not. Obedience and disobedience/dissent can occur for reasons of personality type, gender and cultural factors.

Obedience also depends upon the circumstances or context in which the authority figure commands compliance. Latané (1981) suggests that the proximity, strength and number of authority figures relative to the target are important situational factors which can determine the impact of influence. This means that obedience is a more complex process than is being explained by agency theory, which can be argued to be a **reductionist** explanation for obedience because it does not consider these situational factors.

Another individual difference which may affect obedience is past personal experience. If someone has been the target of malevolent authority, they may be less inclined to be obedient again. For example, one of Milgram's participants, Gretchen Brandt, resisted the orders of the experimenter. Brandt had emigrated to America from Germany five years before and had grown up during Hitler's time in office. Her resistance to authority may be in part explained by her past experiences.

A different explanation for obedience is provided by social power theory (discussed next).

### SOCIAL POWER OF OBEDIENCE

John French and Bertram Raven (1959) identified five bases of power, which are said to motivate and influence behaviour: coercive power, reward power, legitimate power, expert power and referent power. These factors may provide a different explanation of obedience, and certainly provide an alternative explanation for Milgram's findings from his research study. French and Raven explain that someone can exert influence or control because of the source of power they possess.

#### Bases of social power

French and Raven describe five bases of social power that an individual could use on a target to influence obedience:

- Coercive power: the ability to impose a punishment, e.g. a teacher can issue a detention.
- Reward power: the ability to give a reward or incentive, e.g. a parent can give pocket money.
- Legitimate power: an official/recognised position, e.g. a police officer or elected official.
- Expert power: superior knowledge or expertise held by a credible influence, e.g. a college professor.
- Referent power: respect or admiration, e.g. a celebrity or charismatic leader.

If an individual has a base of social power or is perceived to have that power, they have potential influence on other people, which may explain obedience. However, these bases of power are also contingent upon context. For example, a football referee maintains legitimate power on the field during a game, but not off the field once the game is over. Similarly, reward power is only effective if the target desires the reward on offer.



► Figure 1.1.2 Wangari Maathai founded the Green Belt Movement and was awarded the Nobel Peace Prize in 2004 for her efforts in environment conservation and sustainability. She may be perceived as having referent power



### Evaluation of social power theory

One strength of social power theory is that it can be applied to society to explain how organisations (such as corporations or the military) can use hierarchies to create structures of obedience. Senior officers in the military hold legitimate power over lower ranking soldiers. They also hold reward and coercive power, as they can incentivise or sanction the behaviour of soldiers under their command. This may explain why malevolent authority has been implicated in many war crimes. Social power theory can also be used to train soldiers to resist malevolent authority, or promote whistleblowing policies to enable anonymous reporting of destructive obedience.

A further strength of social power theory can be found in Milgram's research. Milgram found that ordinary participants would be willing to administer electric shocks to innocent victims because of the perceived power held by the experimenter ordering them to do so. This could be used as an example of legitimate power, as the experiment was conducted at Yale University, a highly regarded university. The participants may have perceived this environment as one of legitimate power and therefore followed the orders of the experimenter. The participants may have also perceived the experimenter, Mr Williams, dressed in a lab coat, as having expert power as a researcher at the university. This may explain why the participants continued to deliver the electric shocks: they perceived that Mr Williams was in control of the situation and knew what effect the shocks would have on the victims.

A weakness of social power theory is that it fails to take account of the circumstances or context in which the authority figure gives orders. Latané suggests that the proximity, strength and number of authority figures relative to the target are important situational factors which can determine the impact of influence.

A further weakness of social power theory is that it fails to explain individual differences in obedience and dissent. Obedience and disobedience/dissent can occur for reasons of personality type, gender and cultural factors. Focusing on the perceived power held by the authority figure fails to consider the individual differences of the target, so social power theory can be argued to be a reductionist explanation of obedience.

#### LINK

For a detailed description of how obedience and dissent can be explained by personality type, gender and cultural factors, see pages 16–19.

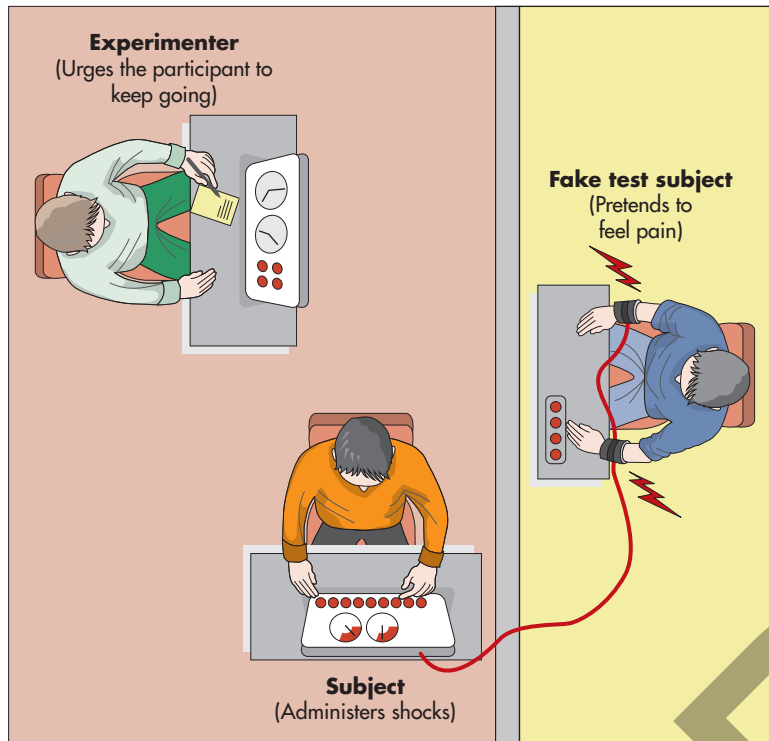
### WIDER ISSUES AND DEBATES

#### Social control

Social control is an important issue in psychology. It considers how psychological knowledge may be used to manage or control others' behaviour. Social power theory gives us knowledge that can be used to manage individuals in certain contexts, such as in a workplace, which can be useful or unjust. This poses ethical considerations as it raises questions about the use of power in society and organisations, particularly if using coercive measures to command obedience, such as in an oppressive regime. However, if social power is used responsibly, it can maintain order and safety.



▲ Figure 1.1.3 If social power is used responsibly, it can maintain order and safety



▲ Figure 1.1.4 Milgram's baseline condition

at Yale University. Forty New Haven residents, from a range of professional, skilled and unskilled occupations, responded to the advert.

### PROCEDURE

The study was conducted at the interaction laboratory at Yale University. A biology teacher acted as the experimenter in the study and was dressed in a grey lab coat, and a middle-aged accountant acted as another participant of the study, but in reality he was a confederate.

### KEY TERM

**volunteer:** participant who responds to an advert; this is called a self-selecting sampling method

**Volunteer** participants were invited to the laboratory and introduced to the confederate. The experimenter briefed both of them about how some people may learn more effectively through punishment, and that the experiment was intended to test how much punishment was effective for learning and whether this varied depending on the person's age. This brief was a cover story to justify the procedure of the study to come, and in particular, the use of an electric shock. It also set the scene for the study to assign the two roles needed for the study: a teacher and a learner. The experimenter stated that the fairest way of allocating these roles was to draw lots. The volunteer participant did not know that the draw was rigged, and both lots had the word 'teacher' written on them. This ensured that the volunteer participant was the 'teacher', and the confederate was always the 'learner'.

The teacher and the learner were then taken to another room, and the learner was seated in an electric chair apparatus with his arms strapped down. It was explained to the teacher that this was necessary to avoid excessive movement or escape during the shock procedure. An electrode to administer an electric shock from the shock generator was strapped to the learner's wrist and conductive gel used to avoid blisters from the electric current. The teacher and learner were informed at this point that the shocks would be painful but not dangerous. All of this was a ruse to convince the teacher that the learner would be receiving shocks, when in fact no shocks would ever be administered.

### APPARATUS

The wrist electrode was attached to a fake shock generator in an adjacent room. The generator was a box with a panel of 30 switches positioned in a horizontal line at the front, increasing in 15-volt

## MILGRAM'S RESEARCH INTO OBEDIENCE

### AIM

Stanley Milgram wanted to investigate whether ordinary people would follow orders and give an innocent person a potentially harmful electric shock. He was motivated to understand why German soldiers followed commands to torture and kill millions of innocent citizens during the Second World War. He was attempting to investigate why ordinary people could commit acts of atrocity in real life, and so he wanted to make his experiment as close to real 'obedience to commit harm' as possible. He also wanted to establish under what conditions people would display more obedience or dissent, so he varied his original experiment to test different factors.

### SAMPLE

Milgram placed an advert in the local newspaper and used letterbox mail asking for male participants to volunteer in a study of memory and learning. The advert asked for volunteers aged between 20 and 50 from all occupations (excluding students) to apply and offered a \$4.50 payment for their participation in a study of memory and learning

increments. Each switch was labelled from 15 to 450 volts, and additional labelling above the switches indicated 'Slight Shock', 'Moderate Shock', 'Strong Shock', 'Very Strong Shock', 'Intense Shock', 'Extreme Intensity Shock', 'Danger' and the final two switches were labelled 'XXX'. A light appeared above the switch after it was pressed and a buzzer could be heard. There was also a blue light and a voltage meter dial, which had a hand that oscillated when a lever was pressed. To convince the teacher that the shocks were real, they were given a 45-volt sample shock which was real.

### LEARNING TASK

The teacher was informed that they should read out a list of word pairs to the learner. After that they should read out one word from the first pair and provide four possible options. The teacher was to administer a shock from the shock generator if the incorrect pair was given as an answer by the learner, starting at 15 volts. After each incorrect response, the teacher was to increase the shock voltage by pressing the next switch on the shock generator. The learner was to respond to the word pair associate list using a set of four switches that the teacher could see on the top of the shock generator. In fact, the sequence of responses from the learner was also rigged so that around one in four responses was incorrect. If the teacher reached 300 volts the learner pounded on the wall, which could be clearly heard by the teacher. The pounding was repeated at 315 volts and from that point on the learner was silent and did not give a response to the word pair task. Typically at this stage the teacher objected to delivering shocks and sought guidance from the experimenter. The experimenter followed a script by giving verbal prods to encourage the teacher to continue delivering shocks even if no response is given by the learner.

Milgram recorded the level of shock reached by the teacher and video recordings were made to analyse the behaviour displayed by the teacher throughout the study. On completion of the study each participant (teacher) was interviewed and reconciled with the learner to ensure their wellbeing.

#### LINK

It may be useful to read Topic B, Chapter 11, and the ethical issues discussed in this section (see pages 10–11) to familiarise yourself with key terms and concepts that will be referred to in this evaluation.

### RESULTS

All participants gave 300-volt shocks. Only five participants refused to continue beyond this point, and 26 out of 40 participants (65 per cent) went to 450 volts. During these experiments, participants were observed to protest, twitch nervously and show signs of anxiety. Fourteen participants showed signs of nervous laughing, and three participants were observed to have uncontrollable seizures. Despite their distress, they continued to obey. During the debrief participants were interviewed about how painful they felt the shocks were for the learner on a scale of 1–14 (14 indicating 'extremely painful'), to which the mean response was 13.42, indicating that they thought the shocks were real.

### CONCLUSION

Milgram concluded that ordinary people would ignore their own moral conscience and deliver harmful shocks to an innocent victim at the command of an authority figure, despite displaying considerable distress while doing so. Milgram concluded that there were several features of the study which may explain this obedience, including the reputation of the university, the legitimacy of the task, the teacher's and learner's voluntary participation, the random assignment of teacher and learner roles, among other factors.

### EVALUATION OF MILGRAM'S OBEDIENCE STUDIES

Milgram's study has been discussed on both methodological and ethical grounds.



▲ Figure 1.1.5 Milgram's experiments initially took place at Yale University which has a well established reputation for academic research.

## METHODOLOGICAL ISSUES

A strength of Milgram's experiments was that they were highly standardised and controlled. Each participant was briefed in the same way and experienced the same verbal prods, feedback and apparatus. Behavioural data was gathered about how long participants took to press each switch and for how long the switch was depressed. Both objective quantitative data and qualitative observations were made, making this research highly credible in terms of being both reliable and valid. It also means that retests can be conducted to check whether the same levels of obedience would be observed reliably. However, a reanalysis of Milgram's archive materials on the study by Gina Perry (2013) revealed that the experimenter sometimes deviated from the script by providing additional verbal prods and reassurances to the teacher to coerce them to obey. This raises questions about the degree of standardisation employed. Despite this we cannot claim that the reliability of the findings is in question, and in a replication by Burger (2009) similar levels of obedience to Milgram's research were found.

One criticism of Milgram's original study was that the sample of 40 men is not representative of the general population. One issue is that the participants were recruited by an advert or mailshot, resulting in a volunteer (self-selecting) sample. This could suggest that the participants were more compliant or more authoritarian in character. When debriefed, Milgram noted that participants took part for a range of reasons, and there was not one single overriding factor that could account for high levels of obedience. Milgram also noted that the participants who gave the greatest level of shock tended to blame the learner for their pain rather than themselves or the experimenter, a typical trait of an authoritarian character. However, other research into volunteering characters has tended to find them less rather than more authoritarian.

Another criticism of Milgram's experiments was a suggestion that the participants did not really believe that they were administering harmful or serious electric shocks at all, and were just playing along with the game. Milgram dismissed this claim and made two arguments against it. Firstly, that the observed anxiety of the teachers throughout the duration of administering shocks was evidence itself that they believed that the shocks were real, and secondly that only 2 of the 40 participants in a follow-up experiment thought that the study was a hoax. Milgram believed that these participants were probably defending their own behaviour so that they were not seen as cruel. However, if the participants did believe the shocks were not real, it would threaten the internal validity of the study and question whether an authority figure could command such destructive obedience.

Laboratory research, such as this, is often criticised for being unrealistic and not representative of real behaviour. We can argue that the task lacked **mundane realism**, as we would not ordinarily be ordered to electrocute an innocent victim. This means that the levels of obedience found are unlikely to reflect obedience in a more naturalistic situation. Milgram maintained that the process of obedience was the same regardless of location or task. Interestingly, the Hofling et al. (1966) field study of the doctor–nurse relationship found far more nurses that were willing to obey the instructions of a doctor than Milgram found in his experiment. Perhaps in real life obedience is greater than Milgram's experiments would predict. Or perhaps the Hofling et al. findings could be explained by the strict hospital hierarchy and the legitimate status of doctors at the time.

More recently, a virtual reality experiment has been developed by several researchers to test obedience in computer simulation conditions. Slater et al. (2006) used virtual characters as victims and participants were aware, therefore, that the shocks being administered were not real. Consistent with Milgram's proximity experiment (where the teacher could see the learner), they found that participants who could see the animated victim were less obedient than those who only communicated with the victim via text. This raises the question of whether obedience can be studied under simulated conditions to good effect without the ethical implications associated with using live confederates.

### KEY TERM

**mundane realism:** the extent to which apparatus and procedures used in a study reflect real life

## SKILLS

CRITICAL THINKING, ANALYSIS,  
INTELLECTUAL INTEREST AND  
CURIOSITY

## ACTIVITY 1

Gina Perry (2013) conducted an archival analysis of Milgram's reports, video and audio tapes and revealed some major issues with Milgram's findings and conclusions. She found that Milgram overstated the obedience rate of his research, equating to 65 per cent, which did not represent the high levels of people who dissented throughout his variation studies. She claims that many more participants revealed that they knew the study was a hoax and that no real shocks were being administered. She claimed that Milgram's procedures were not as standardised as he claimed. Analysis of video and audio recording showed that there was a great deal of improvisation by the experimenter. Perry believed this to be direct coercion to force the teacher to continue with the shocks.

Gina Perry published a book on her findings, *Behind the Shock Machine: The Untold Story of the Notorious Milgram Psychology Experiments* (2012). You can find extracts of her book and various interviews on the internet. Here is a summary of her main criticisms. Using the internet find out why she made these criticisms and complete the table.

A summary of Perry's criticisms	Why did Perry make this criticism?
Perry looked across all of Milgram's variations and criticised Milgram for making the claim that 65 per cent of participants were obedient.	
Perry criticised Milgram for assuming that the participants believed that they were administering real shocks.	
Perry criticised Milgram for claiming that he used standardised procedures.	

## ETHICAL ISSUES

Diana Baumrind (1964) heavily criticised Milgram's experiments on ethical grounds. She expressed considerable concern for the welfare of the participants and argued that the stress caused was deliberate. Milgram responded by stating that the anxiety induced by the experimental conditions was not deliberate or anticipated. He had discussed the experimental procedures at length with colleagues and none had anticipated the participants' responses.

Although it is true that the outcomes of research cannot ever be predicted with reliability, it does not explain the fact that Milgram conducted 18 variations to his study, which involved 636 participants. Although the participants' reactions could not have been foreseen at the beginning, they certainly could have been predicted once the experiments were underway. Milgram justified the anxiety he caused to participants by describing it as 'momentary excitement', which in his view was not the same as harm.

Every experiment that Milgram conducted could also be criticised for involving a considerable amount of deception:

- participants thought it was a study of memory and learning, not obedience
- they were hoaxed into believing the drawing of lots was real when in fact it was rigged
- they believed that the confederate learner was a genuine participant
- they thought the shocks administered were real.

This deception was necessary for the procedure of the study, but such an approach would be problematic by today's ethical standards. Moreover, it could have caused additional stress and embarrassment for the participants when they were debriefed.

Milgram, however, went to considerable lengths to ensure that participants did not feel embarrassment. He fully debriefed the obedient participants by explaining that their actions were normal, and the dissenting participants were assured that their decision making was justified. He also ensured a friendly reconciliation between the participant and the learner and followed up with a full written report for all participants. He also conducted a follow-up questionnaire for them to express their feelings about the experiment after some time. Milgram's post-experimental questionnaire seemed to confirm that participants did not have any negative feeling about their participation, with 84 per cent having said that they were glad to have taken part.

Although Milgram clearly offered participants the right to withdraw from the experiment, some argued that their right to leave was violated by the verbal prods used by the experimenter. Milgram briefed participants advising them that they could leave at any time without adverse consequence, and they could even take the money incentive. It is true that Milgram did not physically stop the participants leaving. He did, however, enter them into a contract of trust and incentivised their participation with money, and the verbal prods used directly challenged any participant's attempt to leave the situation. In defence of Milgram, the verbal prods were an essential requirement to ensure orders were given that demonstrate obedience. Because 35 per cent (or more) of his participants did end the experiment, it could be argued that the prods merely dissuaded withdrawal.

Milgram vehemently defended his series of experiments, arguing that no one would have been so concerned with the ethical issues associated with the research if they had not found such high levels of obedience from ordinary people.

#### EXAM TIP

If you are asked to 'evaluate' a theory, research study or concept in psychology, you will need to review the strengths and weaknesses of the information, make judgements and form an overall conclusion. For example, if you are asked to evaluate the ethical issues associated with Milgram's research, you will need to consider the weaknesses and strengths of the study in terms of ethics, and consider how the ethical issues could have been justified by the methodology or aims of the study.

You will also need to come to a balanced and considered conclusion. It is useful to 'flag up' this conclusion at the end of your answer by stating 'In conclusion,...' This makes it clear to an examiner that you are fulfilling the requirements of the question. You will need to review the main judgements made in your answer and come to a conclusion based on the material you have presented.

#### MILGRAM'S VARIATION STUDIES

Milgram repeated his experiment to investigate under what conditions obedience or dissent would be found to explain why he found such a high level of obedience to authority. The location of his further experiments varied from the original, most being conducted in the basement of Yale University. He also changed the learner feedback to include more verbal protests from 75 volts which progressively intensified ('Let me out of here') and the inclusion of comments concerning the learner's heart condition ('My heart is bothering me now'). This new procedure formed a baseline condition for his variation studies.

#### TELEPHONIC INSTRUCTIONS (EXPERIMENT 7)

To establish whether the proximity of the experimenter had an influence on the level of obedience or dissent displayed by the teacher, Milgram devised a variation where after giving initial instructions to the teacher face to face, the experimenter left the room and continued to give instructions over the telephone.

Milgram found that the number of participants willing to give the maximum 450-volt shock fell from 65 per cent to 22.5 per cent, showing considerable dissent. He also observed that participants continued to administer lower shocks rather than increase the voltage, and even lied to the experimenter about it, with many assuring that they were increasing the shock level. This variation demonstrates that proximity is a situational factor which determines obedience. Greater dissent is found when the authority figure is further away.

The conclusion drawn from this variation can be supported by another condition that Milgram adapted in this variation. This condition involved the experimenter initially giving orders over the telephone, but then returning to give orders face to face. The reappearance of the experimenter caused obedience to rise, suggesting that proximity did have an effect on obedience. This finding is further supported by Sedikides and Jackson (1990) who found that instructions by a zookeeper given to visitors to 'not lean on a rail' was effective while they were in the same bird house room, but not once the visitors had left the room.

Compared to the original study, this telephone variation potentially caused less distress to the participants because the experimenter was not in the same room when he pressured the participants to continue shocking the learner. This can be seen by the sharp drop in obedience and in some participants' defiance in administering an incorrect shock level.

### THINKING LIKE A PSYCHOLOGIST

Digital technology has enabled many people to work effectively from home, rather than travel to a workplace. Often meetings are held remotely, and communication between employers and employees can be done using email or messages. Using your knowledge of Milgram's research, consider how working from home may influence the authority managers have over their workers. You should consider Milgram's variation study to determine how much influence managers would have over their employees when they do not share an office.



▲ Figure 1.1.6 How might working from home influence a manager's authority over their workers?

### RUNDOWN OFFICE BLOCK (EXPERIMENT 10)

Milgram was aware that the institutional context of Yale University could be encouraging participants to show a higher level of obedience than they would in less prestigious settings. When follow-up interviews were conducted after the original series of experiments, many participants referred to the integrity of Yale University having given them the confidence to take part in the study. They would not have done if the experiments had been conducted somewhere less prestigious.

He relocated his experiment to a rundown commercial office building in a town called Bridgeport, Connecticut. Participants were recruited through mailshot recruitment and paid for their time. To remove the connection to Yale University, participants were told that the study was being conducted by Research Associates of Bridgeport, a private company conducting research for commercial industry. The same laboratory procedures were followed as in the basement of Yale University, however, the three-room office suite used was rather sparsely furnished but clean.

Milgram found obedience fell to 47.5 per cent, concluding that the less reputable context reduced the legitimacy of the authority and increased dissent among participants. He also reported that participants questioned the credentials of the company on arrival (although these claims were made during debrief).

It could be argued that the venue change for this variation meant that participants were being tested in a more realistic environment than that of the interaction laboratory in Yale University, so it may better represent obedience in a more natural environment. However the task itself was no more realistic. It could also be argued that the change in venue may have resulted in greater distress experienced by the teacher given that the private company did not hold any specific credentials compared to researchers at Yale, which may have been unsettling for participants.

### ORDINARY MAN GIVES ORDERS (EXPERIMENT 13)

In Experiment 13, the role of the experimenter was played by an ordinary man, rather than an experimenter wearing a grey lab coat as portrayed in previous variations. This variation was designed to test the role of authority and status on obedience.

Three people arrived at the laboratory; two of them confederates of the study. A rigged draw was run to determine who would be the teacher, learner and co-participant. The first confederate was given the role of learner. The second confederate was assigned the role of co-participant, seated at a desk and given the task of noting times from a clock this was the role of the 'ordinary man'. The **naïve participant** was given the role of the teacher, who had to read out word pairs and deliver the shocks. The experimenter followed the usual instructions to strap the learner into the electric shock chair, but did not tell the teacher what levels of shock to give during the study. The experimenter received a phone call to leave the room and departed with a comment to the teacher to continue getting the learner to persist with the word pairs until he had learned them perfectly.

To ensure that some instruction to increase the shock levels was given, the co-participant/ordinary man said that a good way to conduct the study would be to increase the shock level each time the learner made a mistake in learning the words. Throughout the experiment, the co-participant/ordinary man restated this instruction.

Milgram found that 80 per cent (16 out of 20) of participants broke off before the maximum level of shock, resulting in a 20 per cent obedience level. This variation clearly shows that the authority figure has a significant role to play in producing obedience, as without an authority figure there is considerable dissent.

However, Milgram himself acknowledged that there were still traces of authority left behind after the experimenter left the room. This was because the physical removal of the experimenter did not strip the situation of all authority, as the experimenter had already given instructions to administer the shocks.

#### KEY TERM

**naïve participant:** a genuine participant, who is not a confederate of the study



## SKILLS

CRITICAL THINKING,  
ANALYSIS, INTERPRETATION,  
COMMUNICATION

## ACTIVITY 2

It is useful to understand how the variation experiments compare in terms of similarities and differences. Copy and complete the table to show how the variation experiments are similar or different to the original experiment.

	Milgram's original baseline experiment	Telephonic instructions (Experiment 7)	Rundown office block (Experiment 10)	Ordinary man gives orders (Experiment 13)
<b>Aim</b>	To investigate whether ordinary people would follow orders and give an innocent person a potentially harmful electric shock.			
<b>Sample</b>	Forty male volunteers from the New Haven area.			
<b>Procedure</b>	Conducted at the interaction laboratory at Yale University. Rigged lots drawn to be teacher or learner. Learner strapped to shock generator. Word association memory task. Verbal prod given.			
<b>Results</b>	100% of participants went to 300 volts. 65% of participants went to 450 volts.			
<b>Conclusions</b>	An ordinary person would harm another if instructed by an authority figure.			

## EXAM TIP

When evaluating Milgram's variation studies, you can use similar strengths and weaknesses to his original study. However, they should be adjusted to match the variation. For example, the procedure of the 'ordinary man' variation was standardised as the co-participant was always given the role of recording timings from a clock seated at a desk, and the experimenter was always called away by telephone call. This means that the effect of lessened authority on obedience level can be re-tested to check for reliability.

These variation studies demonstrate that situational factors, such as proximity and legitimacy of the authority, can determine whether someone is obedient or willing to dissent.

**SKILLS**

**CRITICAL THINKING,  
ANALYSIS, INTERPRETATION,  
COMMUNICATION, EMPATHY**

**ACTIVITY 3**

‘Discuss’ essay questions require you to demonstrate knowledge and understanding independent of application of knowledge. You should explain what a theory says before you apply your understanding of the theory to the context or scenario you have been given.

Read the following question:

Khalid is working in a café as a trainee chef. At work, Khalid works hard to cook good food and clean his food preparation area at the end of his shift. When he is asked to revise the menu in the back room of the café while his manager is away from work, he creates a new menu, even though he does not want to. Khalid’s manager asks him to create the new recipes at home. Khalid does not spend any time at home creating the new recipes. Khalid’s manager contacts his parents because he fails to create the new recipes, but his parents cannot get Khalid to work at home.

Discuss, using Milgram’s research into obedience, why Khalid only completes his work on some occasions and not others. You must make reference to the context in your answer. (8 marks)

For this question you need to show knowledge and understanding of Milgram’s research into obedience, and show application of this knowledge to the scenario. It is helpful to make a plan before writing your answer.

Copy and complete the table.

Knowledge and understanding of Milgram’s obedience research	Application to scenario
Milgram’s (1963) original laboratory study found that 100% of participants obeyed the instructions of the authority figure to administer shocks up to 300 volts, with 65% continuing to 450 volts.	The café setting may have a status associated with legitimising instructions to complete cooking and cleaning tasks when asked to do so, which is why Khalid works hard at the café.
In Experiment 10, rundown office block, Milgram found that the situational variable of having lower prestige in the environment that orders are given reduced obedience levels to 47.5%.	
In Experiment 7, telephonic instructions, Milgram found that the number of participants willing to give the maximum 450-volt shock fell from 65% to 22.5%.	
In Experiment 13, ordinary man gives orders, Milgram found that 16 out of 20 participants did not fully follow instructions in the absence of an authority figure, with only 4 participants reaching 450-volt shock levels.	

## FACTORS AFFECTING OBEDIENCE AND DISSENT/RESISTANCE TO OBEDIENCE

Milgram's research shows us that obedience and dissent can depend on a number of factors. Other researchers have investigated a variety of factors to understand whether different people are more likely to be obedient. Individual differences refer to aspects such as personality and gender. Other factors include situation and culture.

### INDIVIDUAL DIFFERENCES: PERSONALITY

The obedience research we have discussed so far suggests that situational factors play a significant role in determining levels of obedience. However, while many of Milgram's participants were obedient, some resisted authority. Perhaps individual differences can explain why some people are more or less likely to be obedient to authority.

Personality refers to a set of relatively stable psychological traits which can influence how we think and act. Some types of personality have been associated with obedience and dissent.

#### Authoritarian personality

A person with an authoritarian personality is typically submissive to authority because they may have been raised in a strict household and punished for non-compliance. Theodor Adorno et al. (1950) devised the F-Scale (**Fascism** Scale), a questionnaire used to detect the authoritarian personality. The authoritarian personality has been associated with higher levels of obedience because individuals with this personality type tend to maintain social rules and order.

Stanley Milgram and Alan Elms (1966) compared the F-Scale scores for 20 obedient and 20 dissenting participants involved in Milgram's experiments. They found that obedient participants had a higher F-Scale score, indicating an authoritarian personality type, compared to the dissenters. However, the F-Scale is a self-reported measure, and the link between authoritarianism and obedience is a correlation, so we cannot be sure that it causes obedience.

Michaël Dambrun and Elise Vatiné (2010) conducted a simulation of Milgram's experiment using a virtual environment/computer simulation and found that authoritarianism was linked to obedience. Those with high authoritarian scores were less likely to withdraw from the study, perhaps because they were submissive to the authority of the experimenter, or showed a desire to punish the failing learner.

### LOCUS OF CONTROL

Milgram conducted a series of follow-up investigations on participants who were involved in his obedience research to uncover whether certain individuals would be more likely to obey or dissent. In one study, 118 participants from Experiments 1–4 who were both obedient and disobedient were asked to judge the relative responsibility for giving the shocks. They indicated who was responsible for the shocks being given by moving three hands on a round disc to show the proportionate responsibility for the experimenter, the teacher and the learner. He found that dissenting participants gave proportionately more blame to themselves (48 per cent) and then the experimenter (39 per cent). Obedient participants were more likely to blame the learner (25 per cent) than were the dissenters (12 per cent).

It seems that dissenting individuals take more of the blame, whereas obedient people are more likely to displace blame. This can be explained by Rotter's (1966) locus of control personality theory. This theory outlines two different personality types: those with an internal and those with an external locus of control. People with an internal locus of control tend to believe that they are responsible for their own actions and are less influenced by others. People with an external locus of control believe that their behaviour is largely beyond their control and instead is due to external factors. These people are more influenced by others around them. This seems consistent with Milgram's findings that obedient people have an external locus of control; not only are they more likely to be influenced by an authority figure, but they also believe that

#### KEY TERM

**Fascism:** a very nationalist and authoritarian position, intolerant of others' views, based on an extreme right-wing political position

they are not responsible for their actions. Dissenters, on the other hand, are more resistant to authority and more likely to take personal responsibility for their actions.

Albert Blass (1991) investigated the relationship between locus of control and participants' reactions during the Milgram research. Blass found that participants with an external locus of control were more likely to obey the experimenter's instructions to shock the learner and were also more likely to blame the experimenter. However, he also pointed out that the situation had an important role to play, and that obedience should be considered as an interaction between situation and personality; some individuals with an external locus of control may be more susceptible to obedience in particular situations.

**SKILLS**

CRITICAL THINKING,  
ANALYSIS, INTERPRETATION,  
COMMUNICATION

**ACTIVITY 4**

Copy and complete the table to demonstrate your understanding of locus of control as a personality factor affecting obedience.

Locus of control	What is the belief?	Obedient or dissenting?
External		
Internal		

**EXAM TIP**

Remember that individual differences refer to personality and gender. They are not the same as situation and culture.

**INDIVIDUAL DIFFERENCES: GENDER**

Most of the participants in Milgram's studies were male, although he did conduct one variation (Experiment 8) that involved 40 women. Previous research had indicated that women were more compliant than men, yet traditionally we think of women as more empathetic and less aggressive, which might suggest that they would be less likely to comply with orders to shock an innocent victim. This contradiction would be played out in a variation study that commanded both compliance and empathy. Milgram found that women were virtually identical to men in their level of obedience (65 per cent), with 27.5 per cent breaking off at the 300-volt level. Yet their rated level of anxiety was much higher than men for those who were obedient. This was also found in Burger's (2009) replication of this research (see page 62).

Sheridan and King (1972) adapted Milgram's research to involve a live puppy as a victim that received genuine shocks from college student participants. They found that all 13 women were much more compliant and delivered the maximum levels of shock to the puppy compared to only half of men. However, in a review of ten obedience experiments, Blass (1999) found that obedience levels between men and women were consistent across nine of the studies. The study that did not show a similar male/female obedience level was conducted by Kilham and Mann (1974) in a partial replication of Milgram's experiment in Australia. They found women to be far less obedient (16 per cent) than men (40 per cent). However, research into obedience have used different procedures, and produced inconsistent outcomes. This may indicate that there are few gender differences in obedience, despite traditional beliefs that women would be more compliant to authority.

### SITUATIONAL FACTORS

Social impact theory (Latané, 1981) explains that there are three factors which can determine the impact of an authority figure upon a target: strength, immediacy and number. These are factors associated with the situation which can predict the level of obedience observed. If an authority figure has strength (such as legitimate status or power) they will exert greater authority over a target. If an authority figure is proximal/closer to the target, their influence will be greater than if there is a distance between them. If there are more authority figures relative to targets, the influence will be greater.

Milgram's research demonstrates obedience can be influenced by these situational factors. A baseline obedience level of 65 per cent was found, and other variations found this rose or fell depending on whether the authority figure was close or far away from the target, and whether the authority was perceived to be legitimate. Distance seemed to act as a buffer to obedience, as found in the telephonic instruction condition. Status of the authority figure also had an impact on obedience, and Milgram claimed that obedience could only be established when the authority figure was perceived to be legitimate. This was found to be the case when the experiments were conducted at Yale University, and obedience fell when the experiment was moved to Bridgeport or conducted by an ordinary man.

The effect of situational variables on obedience has also been demonstrated in partial replications of Milgram's research. Wim Meeus and Quinten Raaijmakers (1986) devised a series of studies designed to test whether participants would follow orders to be psychologically cruel towards a victim. Using a similar ruse as Milgram, an experimenter gave orders to a participant to test a victim, thought to be applying for a job, and to make the applicant nervous and disturb the test. The applicant failed the test and did not get offered the job as a result of the participant carrying out the orders. When the experimenter was close to the participant, more than 90 per cent of the participants were cruel to the applicant, but this fell to around 36 per cent when the experimenter gave the orders and left the room. This demonstrates that proximity is an important situational factor determining the level of obedience achieved.

### CULTURAL FACTORS

Many behaviours vary across cultures, including obedience, which is shaped by social and cultural norms because culture affects the way we perceive authority. Culture can be divided broadly into two types: individualistic and collectivistic cultures. Individualistic cultures tend to behave more independently and tolerate dissent, which suggests that they resist conformity or obedience. Collectivistic cultures tend to behave as a collective group based on interdependence and cooperation, meaning that compliance is important for the stability of the group (Smith and Bond, 1998). We could assume from this that collectivistic cultures are more likely to be obedient and be less tolerant of dissent.

Thomas Blass (1999) conducted a full review of obedience research (see Table 1.1.1), analysing research 35 years after Milgram's first series of experiments. His data can be analysed in terms of cultural differences using research employing similar methodology to Milgram.

Although some might argue that obedience levels are not universal, on closer inspection of the methodologies of the research studies, it seems that the variation in percentage of participants who gave the full shock may be a product of the procedure employed rather than cultural variation. For example, Ancona and Pareyson's (1968) research took place in Italy and the maximum shock level was 330 volts, compared to Milgram's 450 volts. Milgram found 73 per cent obedience in his proximity studies which is more comparable to the 85 per cent found in Italy, suggesting that 330 volts was perceived to be less dangerous. In Italy, only student participants were used, which Milgram actively avoided because of their compliant and competitive nature. A similar comparison can be made of Burley and McGuinness (1977), who used only 20 students and a maximum voltage of 225.

TABLE 1.1.1: OBEDIENCE RESEARCH

Researcher	Country	Percentage of full obedience
Milgram (1962)	US	65%
Edwards et al. (1969)	South Africa	87.5%
Bock (1972)	US	40%
Kilham and Mann (1974)	Australia	28%
Shanab and Yahya (1977)	Jordan	73%
Miranda et al. (1981)	Spain	50%
Schurz (1985)	Austria	80%
Ancona and Pareyson (1968)	Italy	85%
Burley and McGuiness (1977)	UK	50%

In a recent study, Carl-Benedikt Frey (2020) analysed contact tracing data used during lockdown during the COVID-19 pandemic which showed that collectivistic countries recorded less in-country mobility than individualistic countries. Despite the compared countries having similar stringent lockdown government policies and measures, it seems that individualistic countries were more defiant of the rules, or at least were recorded to be less compliant.

The impact of culture on obedience is complex and unclear and our understanding of the topic is often hindered by a lack of research in certain cultures, or a lack of research that can be compared between countries.

**CHECKPOINT**

- It is important to be able to recognise what factor affecting obedience is being referred to in an exam question. Identify which factor is being described in these scenarios by matching the description with the factor. Record your answers in your notebook.

Scenario	Factor
a) Joshua is always obedient to his parents, but his little sister Jane is always disobedient.	Personality
b) School children in one country are reported to have more school detentions than in a different country.	Gender
c) Temi is a very independent young person. When asked to do something by her employer, she refused as she did not agree with the request. She firmly stuck by her decision to not follow the employer's request.	Situation
d) Noorie completed her schoolwork at school but refused to do any schoolwork at home.	Culture

- You may be asked to identify which type of social power is being used in a given context. Identify which social power is being described in these contexts.
  - A well-liked work colleague tells office staff to tidy his desk.
  - A senior surgeon in a hospital asks nursing staff to collect their lunch for them.
  - A parent imposes a curfew on their child for not doing household chores.
  - A computer specialist with advanced technological knowledge tells colleagues to not access certain computer applications while at work.
  - An employer instructs warehouse workers to work faster and says they will increase their pay.

3. Identify which variation of Milgram's study had each of the results shown below.

Result	Variation
a) 22.5% of participants reached 450 volts	
b) 47.5% of participants reached 450 volts	
c) 20% of participants reached 450 volts	

### EXAM PRACTICE

- Describe one individual difference which may affect obedience. (2 marks)
- Describe how one situational factor can affect obedience. (2 marks)
- Kayin works as an office worker for a company. Her manager orders her to stay late at work to rearrange some office furniture. Kayin follows her manager's instructions and stays late to complete the task. Using agency theory, describe why Kayin completes the task. (2 marks)
- Kayin arrives at work the following day and her manager orders her to dismiss several staff in the office because she is too busy to do it herself. The responsibility for dismissing the staff is the manager's, and not part of Kayin's role in the company. Kayin is friends with many of the office staff so she knows that dismissing them will cause harm and she feels bad for them. Kayin follows the manager's order to dismiss the office staff, blaming her manager for the decision. Discuss how agency theory could explain Kayin's behaviour. You must make reference to the context in your answer. (8 marks)
- Göksal is visiting a museum and while she is looking at a display of ancient ceramics, she is asked by a museum guard wearing a uniform to leave the room immediately. Göksal leaves the room straight away. Explain one strength of agency theory as an explanation for why Göksal leaves the museum room immediately. (2 marks)
- Alessandro is employed as a maintenance engineer in a factory to repair and maintain machinery. His manager tells him to join the other factory workers on the production line, even though this is not part of his job. Alessandro is aware that the production line workers receive a bonus payment if they meet production targets. Alessandro puts away his tools and starts packing boxes on the production line as told to do by his manager. Describe, using social power theory, why Alessandro works on the production line. (4 marks)

### EXAM TIP

In the exam, you may be asked 'To what extent...' type questions. For example: To what extent can individual differences explain variation in levels of obedience?

This style of question requires you to review all of the available information and knowledge that you have concerning individual differences in obedience research and theory, and come to a reasoned conclusion that directly answers the question. Similarly, for an 'evaluate' style of question, it is useful to flag up when you are concluding your review by stating 'In conclusion, ...' at the end of your answer.