CHAPTER 02:

WHAT IS PSYCHOLOGY?

This chapter focuses on the breadth and complexity of the discipline of psychology and how it relates to other sciences such as biology and physiology, and social sciences such as anthropology and sociology. It looks at past research and shows how this has contributed to the broad and deep knowledge base of psychology.

The final part of the chapter describes the different specialist fields of psychology and how each of these continues to contribute to our understanding of the relationship between mental processes and behaviour.

KEY KNOWLEDGE

The scope of psychology including specialist fields and fields of application and their contribution to understanding human behaviour.

(VCE Study Design 2013)

CHAPTER OVERVIEW

Development of psychology	Scope
Psychology as a biological science	Evolutionary theory Physiology > Case studies > Imaging
Psychology as a social science	Nature versus nurture > Social learning (modelling) > Violent video games
Animal research	
Specialists in psychology	Types of psychologists Psychology's contribution to understanding human behaviour

Development of psychology

The word **psychology** comes from two Greek words: *psyche* meaning 'mind' or 'soul', and *-logos* meaning 'the study of'. The combination of the two refers to the study of the mind or soul (Weiten 1998). Today, we refer to psychology as the systematic study of the mind (mental processes) and behaviour.

Psychology is a science based on three processes:

- gathering factual information
- forming theories to explain this factual information
- testing these theories.

Scope

Many people believe that psychologists mainly deal with mental illness and abnormal behaviour. This is not the case. The scope of psychology is broad and complex, and includes the study of animal behaviour as well as human behaviour. It explores many different fields of interest, many different populations, and uses a variety of research skills to unlock the mysteries of mental processes and behaviour. The use of **observation** as a method of gathering useful information about human and animal behaviours is central in developing theories and then testing them.

Psychology has evolved as a biological and social science with its beginnings in **philosophy**. As a science, psychology also overlaps with other scientific fields such as anatomy, biology, neuroscience and physiology. As a social science, psychology overlaps with the disciplines of anthropology and sociology.

Psychology as a biological science

The discipline of biology has provided two key contributions to psychology:

- evolutionary theory
- physiology.

Evolutionary theory

Charles Darwin (1809–82) first suggested that many species, including humans, evolved through a process of *survival of the fittest*. He called this **natural selection**, where animals that were adapted to changes in their environment were strong, lived longer than others and produced more offspring; while those that were not adapted, died. Darwin, like other scientists, relied heavily on observation and developed his theories by systematically watching and then documenting what he saw. See the case study for an example of this.

Darwin also suggested that facial expressions showing emotions were important in the survival of the human species and were genetically based, so that the same facial expressions showed the same emotion in many different races of people. This idea was investigated by psychologist Paul Ekman (1972). Through cross-cultural studies, Ekman found that certain facial expressions were *biologically programmed*, and identified joy, fear, sadness, anger, disgust and surprise (and, to a lesser degree, contempt) as being universally recognised across many cultures. This helped our ancestors recognise danger in the face of an aggressor, or safety in the smile of a friend.

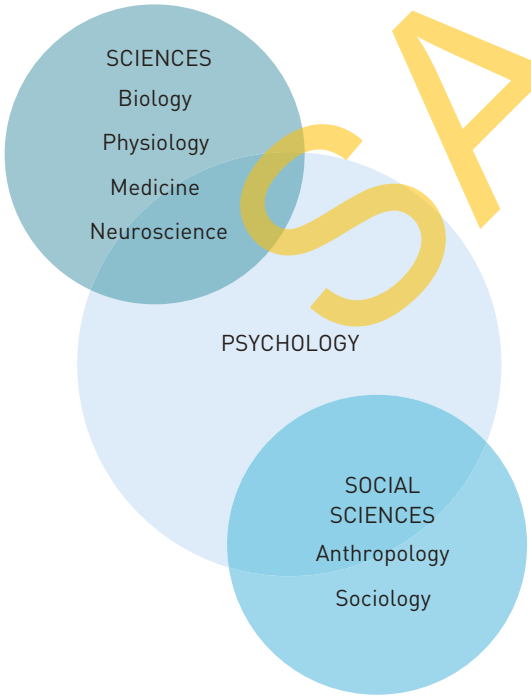


FIGURE 2.1 Psychology overlaps with other scientific fields and social sciences.

CASE STUDY

NATURAL SELECTION

During the Industrial Revolution in nineteenth-century Britain, the white peppered moth died out because industries poured out masses of soot and grime that covered everything. The dirt blackened trees and walls of buildings, making the white peppered moth stand out – easy pickings for birds that liked to eat them. So, through the process of natural selection, the rarer black moth of the same species thrived as it blended in with the filthy surroundings!

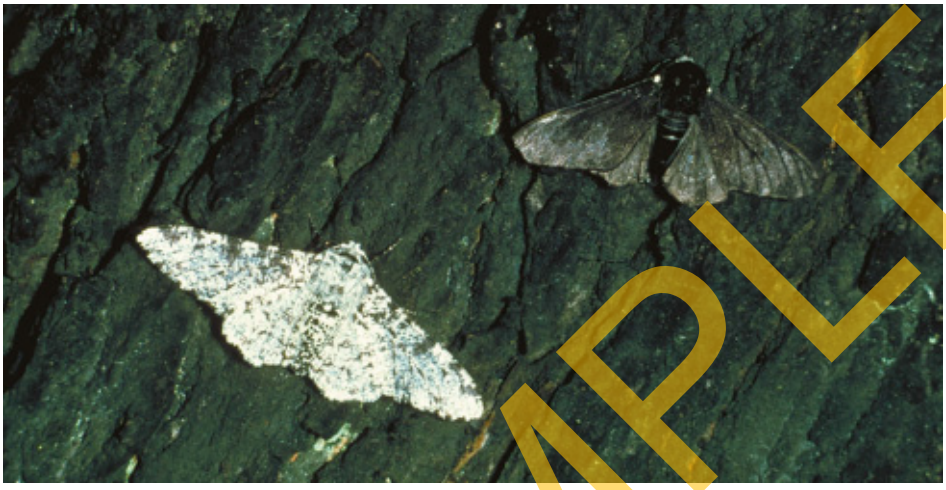


FIGURE 2.2 White and black peppered moths

INVESTIGATE 2.1

SIX BASIC EMOTIONS

Divide into groups of up to five students. Each group makes a set of six cards with one of the following words on each card: *joy*, *fear*, *sadness*, *anger*, *disgust*, *surprise*.

Each group nominates one student who will be responsible for shuffling the cards and acting out each emotion to the rest of the group. Once the cards are shuffled, that student should list the order of the words prior to acting them out, and make sure that the cards are hidden from the rest of the group. Only facial movements are allowed.

Each observer is to write down which of the six emotions they think the student is expressing in order of presentation. At the end of the exercise, each group should tally the number of correct responses to each emotion and share this with the rest of the class for discussion.

Based on your findings, do you believe that these basic emotions are universally recognised?

FIGURE 2.3 What basic emotions does the woman in these photos display?

Physiology

The second area of great importance to psychology has been medical research; especially physiology, which has enabled us to learn about how the brain works. In the early years of psychology this was very difficult, as scientists obviously could not remove the skull and watch the physical brain of a living person at work. More recently, advances in technology have led to imaging techniques that produce clear images of the brain and even show its workings.

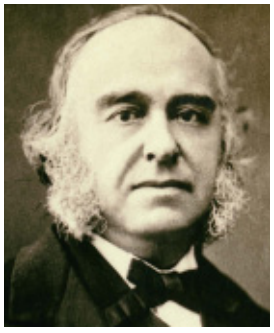


FIGURE 2.4 Paul Broca

CASE STUDIES

The earliest information was gained through case studies of patients who suffered disease or damage to parts of the brain.

Paul Broca (1824–80) saw two patients who had problems speaking. One of them was named 'Tan', which was the only word he could say, while the other had a total vocabulary of five words. After each patient died, Broca performed an autopsy and found damage in the same part of the left frontal lobe of the brain in both individuals. This part of the brain was named *Broca's area*, and patients presenting with similar symptoms are described as having *Broca's aphasia*.

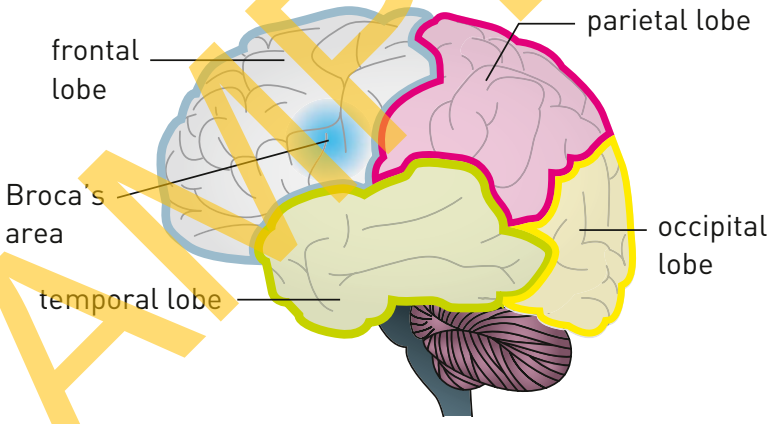


FIGURE 2.5 Broca's area (in blue) is the part of the brain involved in language processing, in terms of speech production.

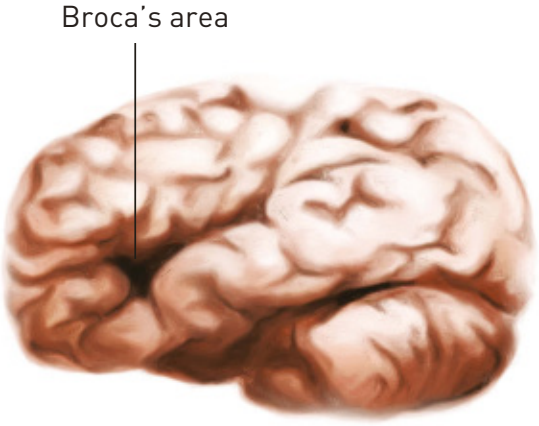


FIGURE 2.6 Tan's brain was removed from his skull in the autopsy and preserved. This drawing of Tan's brain clearly shows part of the cerebral cortex to be missing. This is the area now referred to as Broca's area.

1 Where does the word *psychology* come from?
2 Why is psychology considered a science?
3 What sciences and social sciences does psychology have links with?
4 What theory did Charles Darwin contribute to psychology?
5 How was the earliest information about the brain and nervous system obtained?

2.1 REVIEW

CASE STUDY

PHINEAS GAGE'S HEAD

On 13 September 1848, a railway foreman named Phineas Gage was using explosives to blast rock and make way for a new railway line. The explosion blasted a 6-kg metal bar – 3 cm in diameter and almost a metre long – into his face under his left cheekbone and out through the top of his head, landing about 25 m away. He never lost consciousness. Before the accident, Phineas was described as capable, sociable and pleasant with a good business mind, but the brain damage caused by the accident left him a changed man. He became verbally aggressive, impatient and difficult. The once sharp businessman became childlike and unpredictable.

The case study of Phineas Gage was the first to provide important information about where personality and behaviour are localised in the brain.

FIGURE 2.7 A lithograph showing Phineas Gage's head injury

PHINEAS GAGE

Using the internet, find out more information about Phineas Gage. Write a report on what you can discover about his life before and after the accident, and whether there have been any other similar accidents and outcomes since that time.

2.2 INVESTIGATE

IMAGING

Research continues to give us an ever-growing body of knowledge about the function and structure of the brain, and the nervous and endocrine systems. Today, researchers don't need to wait for patients to die or undergo invasive surgery to examine their brain. There are several sophisticated imaging procedures such as ***f*MRI (functional magnetic resonance imaging)**, which is used to see what parts of the brain are in action when a person is asked to perform a task, for example mentally singing 'Advance Australia Fair' or identifying pictures of objects. This imaging technique can also produce detailed images that track the deterioration of the brain over time in a person suffering from Alzheimer's disease.

An *f*MRI machine uses strong magnetic and radio waves that give detailed 3D images of the brain. It also shows changes in oxygen levels in the brain as a person is performing a mental task. The areas of the brain that are active use the most oxygen and show up 'red' on the computer screen. The benefit of using this particular device is that it provides detailed information on brain structure and shows which parts of the brain are most active while the person is performing a mental task.

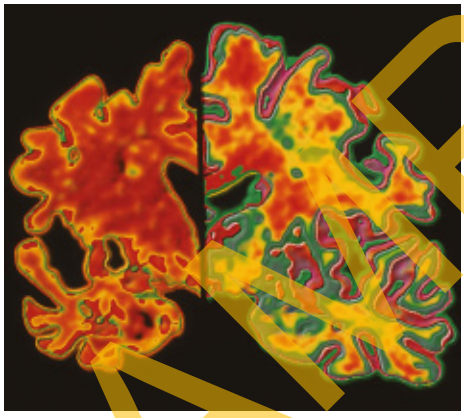


FIGURE 2.8 Scan comparing a 2D cross-section of a brain of an Alzheimer's patient (at left) and that of a normal brain (at right).

FIGURE 2.9 An *f*MRI machine in action

INVESTIGATE 2.3

RESEARCHING THE BRAIN

Using this textbook, the internet and other resources, create a PowerPoint presentation of at least 10 slides on the different types of research methods used to study the brain in psychology, such as ESB, *f*MRI, SPECT, PET and EEG.

Include the following in your presentation:

- a picture of the device
- how the device is used
- what it measures
- whether it is invasive
- whether it provides information about the structure or function of the brain (it may do both)
- a real-life situation where the device could be used and for what purpose.

Psychology as a social science

Psychology is also a social science, which studies people within society and looks at how a particular society influences how people think and behave. It recognises that behaviour is influenced by a person's motives (what's in it for them) and their reactions to other people and situations. It asks questions such as:

- How do experiences shape our thoughts and behaviour?
- How do people's different social and cultural backgrounds influence the way they might deal with conflict?
- How does the presence of other people affect our behaviour?
- How does the role we are given affect the way we treat other people?
- How does peer pressure influence adolescent behaviour?

Nature versus nurture

This area of psychology also considers the biological or genetic influences that determine who we are and how we behave, especially in the context of the increasing level of violent behaviours seen today. Is a person born 'bad' or are they a product of their environment (for example, through upbringing, peer influences, exposure to violence)? This is often referred to as the *nature versus nurture* debate.

On 30 September 2008, a harmless 60-year-old man called Richard Plotkin, suffering from paranoid schizophrenia, was almost killed by a group of five youths aged between 18 and 20. They knocked on his front door, doused him with petrol and set him alight. Mr Plotkin survived, but lost his lips, one eyelid, the skin on the back of his head, neck and hands, and his home. Were these young men genetically flawed or born this way (nature), or were there environmental factors (nurture) that led to this behaviour?

SOCIAL LEARNING (MODELLING)

How does growing up in a violent household influence a young person? Are they more likely to be aggressive than a person brought up in a peaceful home? Albert Bandura (1962) believed that aggressive behaviour could be learned by observing other people. He called this **social learning** or **modelling**. In a series of experiments, Bandura had young children watch a video of a model physically attacking a large plastic clown called Bobo. One group of children saw the model hit the doll on the head, punch it in the nose, kick it across the room, throw it up in the air and sit on it. Immediately after the video, the children were put into a room with a number of toys, including the Bobo doll.

Almost 90 per cent of the children showed the same aggressive behaviour towards the Bobo doll as they had seen in the video and, eight months later, 40 per cent of the same children showed the same violent behaviour seen during the Bobo doll experiment, especially if they saw the model rewarded after its actions. (The Bobo doll experiment is discussed further in Chapter 13.)

1 What is meant by the *nature versus nurture* debate? Explain your answer.
2 Albert Bandura conducted an experiment using young children. What was he investigating and what did he find?
3 Social science looks at both environmental and genetic influences to explain how a person develops over a lifespan and how they behave. What methods are used to examine the importance of each?

2.2 REVIEW

↙ SCHIZOPHRENIC SET ALIGHT IN ROSEBUD ARSON HORROR

Steve Butcher

The Age, 15 January 2009

A lonely, harmless man with serious mental illness was set alight and his Rosebud house destroyed by fire in a stupid attack involving five young men that left him fighting for his life.

VIOLENT VIDEO GAMES

Did the five young men who set Richard Plotkin alight learn these behaviours at home, or did this happen because they played hours of violent video games? Craig Anderson (2002) found strong evidence that playing violent video games on a frequent basis (approximately 20 hours a week) increased aggressive behaviour and decreased positive social behaviours in children and young people. He suggested that this was due to improved computer graphics and the development of visually realistic games that involved brutal mass killings as the main goal of scoring points and winning the game. Games such as *Resident Evil 4*, *Grand Theft Auto*, *Mortal Combat* and *Soldier of Fortune* all involve wounding or killing opponents in graphically lifelike settings. They show realistic people, blood and wounds, and use various weapons such as shotguns, explosives and knives. If the five young men played these types of video games, did this make them more likely to behave in the way that they did?

FIGURE 2.10 There is evidence that frequently playing violent video games increases aggressive behaviour.

The last two examples used to illustrate the social science aspect of psychology have pointed to the importance of environmental influences on a person's life, but do not offer any explanations for the role of biological factors or genetics. The importance of genetics has been investigated using identical twins (which are from the same egg, and so have exactly the same genetic make-up). Findings from these studies have shown that we are a product of both biological and environmental influences; but to what extent each plays a part in who we are and how we behave continues to fuel the 'nature versus nurture' debate, which will be discussed further in Chapter 8.

VIOLENT VIDEO GAMES

2.4 INVESTIGATE

Work with a partner for this activity. Using the internet, research the relationship between violent video games and aggression.

1. Does your research support the idea that there is a link between playing violent video games and aggressive behaviour? Explain your answer.
2. Playing violent video games has also been linked directly with student shootings in the United States. After conducting further research on the internet, find one article about such a shooting and write two paragraphs describing what happened.
3. On average, how many hours are considered too many by researchers?
4. What electronic or video games do you play?
5. On average, how many hours do you spend each day playing these games?
6. Have you noticed any behavioural changes in yourself or others after playing violent video games? Explain your answer, but *do not* use names!

Animal research

The use of animals in psychological research has been of great importance in understanding the relationship between the brain and behaviour. Animals and humans are similar in many ways, so animals have been a useful substitute for humans in experiments.

The ethical constraints on conducting experiments on people are stricter than those applied to animals. It is unethical, for example, for a researcher to take a human baby away from its mother to see the effect on the child's emotional, physical and cognitive development over time; or to surgically implant electrodes inside a person's brain to observe their reaction to pain or hunger. Animals such as rats, mice, monkeys, dogs, cats, pigs and birds have all taken the place of humans when experiments have required invasive

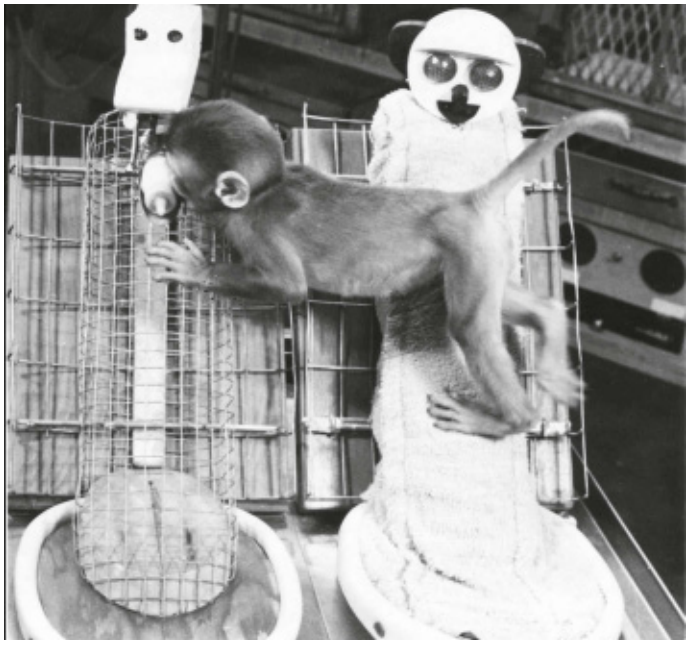


FIGURE 2.10 Harlow's monkey experiment

procedures. For example, by damaging a region of a cat's brain, researchers can sometimes learn a tremendous amount about the function of similar regions of the human brain.

In the 1950s, Harry Harlow and his colleagues (Harlow & Zimmerman 1959) studied why baby monkeys became emotionally attached to their mothers. The baby monkeys were separated from their mothers at birth and raised alone. Each baby had two imitation 'mothers' in its cage. One was a soft, cloth mother and the other was a hard, wire mother, which was the one that gave the baby its milk. When the baby monkeys were frightened, the researchers found that they would always go to the cloth mother rather than the wire mother, even though the latter was the mother that fed them. They concluded that security and comfort rather than food were the driving forces of attachment in monkeys. This research, which is discussed in Chapter 9, helped us understand attachment in human infants.

Despite the value of animal research, the question still arises: does the end justify the means? To what extent is the cost to animals justified by the benefits to humans? Today, there are ethical guidelines in place that attempt to minimise pain and discomfort to animals. However, animals are still used in research.

INVESTIGATE 2.5

ANIMAL RESEARCH

Using the internet, search for information on animal research. Find a website that outlines ethical guidelines for animal research. In dot-point form, outline the key points. Now find two experiments using animals. You may follow the suggested links on the website you have found, but feel free to explore further as well.

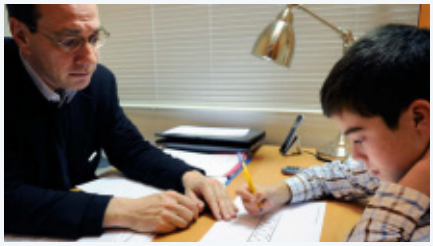
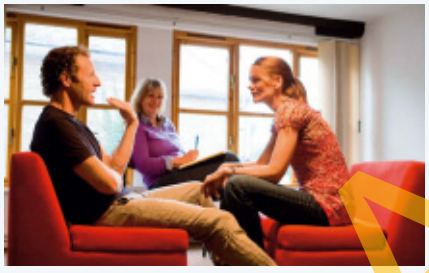
1 Answer the following questions about each experiment.
   - **a** Who were the experimenters?
   - **b** In what years and countries were the experiments conducted?
   - **c** What were the aim of the experiments?
   - **d** What hypotheses were tested in the experiments?
   - **e** Briefly outline the procedures.
   - **f** What can be concluded from these studies?
   - **g** Did the animal(s) experience physical distress or pain?
2 In your opinion, did the cost to the animal(s) justify the benefit to humans? Explain your answer.
3 How do the studies relate to human behaviour?

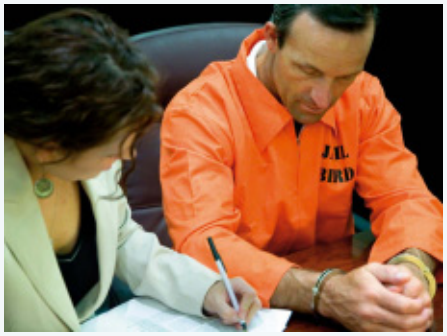
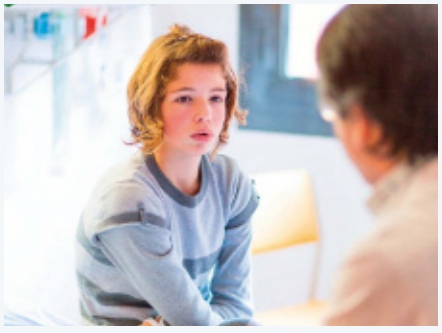
Specialists in psychology

Psychologists are experts in human behaviour. They use scientific methods to study how people think, feel and behave, and then use this knowledge to help people function better; for example, by training people to handle stress and family problems. Psychological therapies are also widely used by groups, organisations and communities.

The following table provides some information about the nine main specialties in psychology. If you would like more detail about any of these, you can visit the Australian Psychological Society website.

TABLE 2.1 The nine main types of psychologists

TYPES OF PSYCHOLOGISTS	DESCRIPTION
Clinical neuropsychologists 	• Assess, monitor and manage individuals with brain impairments. Provide a detailed assessment and conduct thorough non-drug-based tests. • Patients may suffer from: epilepsy, head injury, neurological disease, strokes, drug and alcohol disorders, learning disabilities, attention deficit disorders, dementia and mental illnesses such as schizophrenia.
Clinical psychologists 	• Assess, diagnose and treat psychological problems and mental illness. • Most clinical psychologists work in one or more sub-specialties, such as: alcohol and drug misuse, attention deficit disorders, anxiety disorders such as panic attacks and phobias, brain injury, chronic pain, eating disorders, educational functioning, loss, grief and bereavement, personality problems, sleep disorders, suicidal behaviour or obsessive compulsive disorder.
Counselling psychologists 	• Assist individuals, couples, families and groups with relationships, well-being, work, recreation, health and crisis management. • For individuals: help manage stress, grief and loss, chronic pain, depression, anger and violence, and recovery from eating disorders. • For couples: improve communication and parenting skills, manage conflict and divorce. • For families: deal with problems experienced in blended families and help with communication issues. • For organisations: help select new staff, evaluate and conduct new training programs, and help manage conflict resolution.
Community psychologists 	• Work with community members and government organisations to address individual, social, political and environmental factors that impact on the psychological well-being of communities. • Conduct community-based research, assess community needs, coordinate projects, provide counselling and work with other people to break down existing social barriers; e.g. may work with migrant groups to assist them in adjusting to a new country by organising contact with other members of the same ethnic community, language support, housing etc.
Educational and developmental psychologists 	• Are concerned with how people develop and learn through their lives. Can work with very young children, adolescents, parents and young adults on many educational, social and developmental issues that occur over a lifespan. • Provide help to parents of young children with learning difficulties, problems of attachment, difficult behaviour, developmental concerns and disabilities. Alternatively, they may help teachers, parents and children with school avoidance, learning difficulties, low self-esteem, bullying and other behavioural problems.

TYPES OF PSYCHOLOGISTS	DESCRIPTION
Forensic psychologists 	• Work in criminal, civil and family legal areas and provide services to criminals, victims, justice personnel and police. • Aim to help understand the cause, treatment and prevention of criminal behaviour. • Perform psychological assessments and provide reports for courts and parole boards, appear in court as expert witnesses, design and deliver treatments for offenders, assess and treat victims of crime, intervene in child neglect/abuse cases and carry out research in forensic psychology (profiling).
Health psychologists 	• Work within the health-care system and promote the prevention and treatment of illness. • Understand how the effect of psychological factors related to health and illness can affect a person's ability to function. • Develop health promotion programs to assist with the prevention of illnesses such as cancer, heart attacks and stroke.
Organisational psychologists 	• Generally specialise in the areas of employment, human resource management, training and development, market research and advertising. • Assist in areas such as recruitment, job analysis, training and development, career coaching, organisational change, workplace research and performance reviews.
Sport psychologists 	• Assist individuals and teams involved in professional and amateur sports to maximise their performance and achieve their goals. • Also assist in improving mental skills, managing stress and performance anxiety, team building and time management.

PSYCHOLOGIST VIDEO

2.6 INVESTIGATE

Select one of the nine types of psychologists in Table 2.1 and work in groups of three to create your own video. Use the information in the table, with research from the internet for greater depth.

Your video must include:

- a written script
- a clear description of what the psychologists do
- who they work with/treat
- where they usually work
- how they assist those they work with.

Psychology's contribution to understanding human behaviour

The scope of psychology is broad and complex. The contributions from other sciences, along with the vast body of knowledge gathered through academic and other specialist psychologists, have increased our understanding of mental processes and behaviour. Through the observation of behaviour and the use of other research methods, this knowledge has been successfully used by psychologists to help individuals, families, groups, communities and organisations by developing appropriate treatments and strategies to help people with a range of problems.

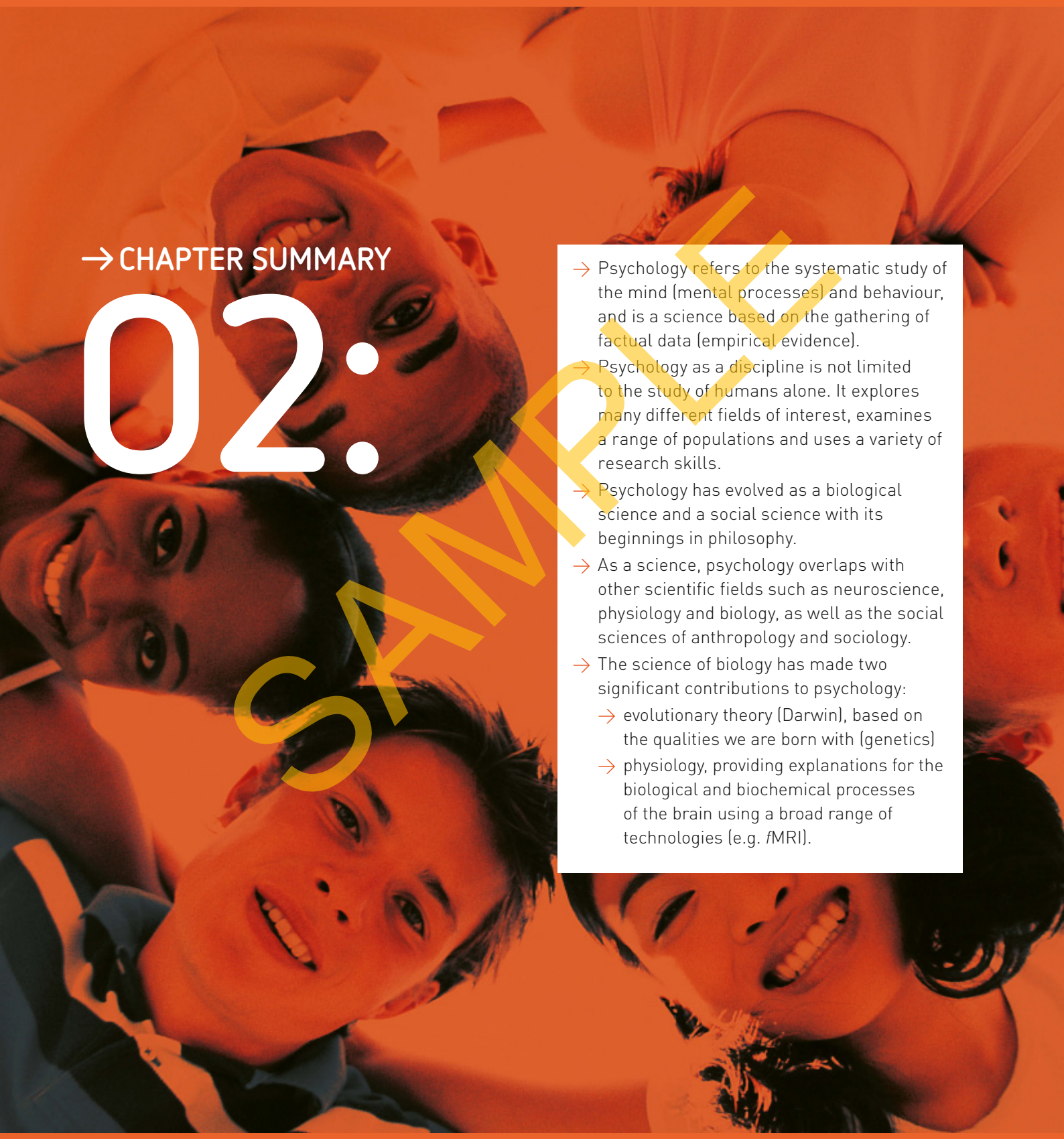
Psychology is not only helpful when people have problems; there is probably no human activity that has not benefited from psychological understanding.

> The science of the mind can only have for its proper goal the understanding of human nature by every human being, and through its use, brings peace to every human soul.
>
> Alfred Adler

DOES PSYCHOLOGY HELP?

2.7 INVESTIGATE

1 Working in pairs, look at these questions and think of how psychological understanding helps us to answer them or know how to look for answers.
   - **a** Do different children learn in different ways?
   - **b** How can I train my dog to come when I call?
   - **c** How can I increase sales in my shop?
   - **d** How can I decorate this room so that it helps people to relax?
   - **e** How can I create a best-selling computer game?
   - **f** What is the best way to manage my team of office workers?
   - **g** How can we win our next game of soccer?
2 Write four of your own questions that show how an understanding of psychology contributes to human life.
3 Now attempt to write a similar question, relating to a human activity, for which the answer would be: 'Psychology does not contribute in any way.'



→ CHAPTER SUMMARY

02:

- Psychology refers to the systematic study of the mind (mental processes) and behaviour, and is a science based on the gathering of factual data (empirical evidence).
- Psychology as a discipline is not limited to the study of humans alone. It explores many different fields of interest, examines a range of populations and uses a variety of research skills.
- Psychology has evolved as a biological science and a social science with its beginnings in philosophy.
- As a science, psychology overlaps with other scientific fields such as neuroscience, physiology and biology, as well as the social sciences of anthropology and sociology.
- The science of biology has made two significant contributions to psychology:
  - evolutionary theory (Darwin), based on the qualities we are born with (genetics)
  - physiology, providing explanations for the biological and biochemical processes of the brain using a broad range of technologies (e.g. *f*MRI).

- As a social science, psychology has looked at how society impacts on the way a person might think and behave. It also recognises that behaviour is influenced by a person's motives and their reactions to other people and situations. It asks questions such as: How does experience shape our thoughts and behaviours? Are we born 'bad' or are we a product of our environment? Do we learn to be violent?
- Bandura (1962) believed that people learn aggressive behaviours from others.
- Anderson (2002) found that playing a lot of violent video games increases aggressive behaviours in children and young people.
- The Australian Psychological Society recognises nine distinct specialties – clinical neuropsychologists, clinical psychologists, counselling, community, educational and developmental, forensic, health, organisational and sport psychologists – while academic psychologists are found teaching within all of these areas.
- All practising psychologists, regardless of specialty, must complete a minimum of four years' university training in psychology followed by either two more years at Master's degree level, or two years' practice under the supervision of an experienced psychologist. After this training, psychologists can be registered with their state or territory registration board.

→ TEST YOUR UNDERSTANDING

MULTIPLE CHOICE

1 Psychology as a discipline overlaps with other sciences. Some of these are:
- **a** biology, physiology, sociology and anthropology
- **b** biology, music, sociology and anthropology
- **c** anatomy, neuroscience, biology, sociology and anthropology
- **d** physics, anatomy, social science, medicine and philosophy.

2 Psychology is a science because its practitioners advance knowledge and understanding by:
- **a** using scientific instruments such as computers and galvanometers in their research
- **b** following rigorous scientific procedures
- **c** working with human subjects
- **d** working in scientific laboratories.

3 Psychology is a science based on which three processes?
- **a** gathering of factual information, forming theories to explain these facts and testing these theories
- **b** gathering a range of information, using questionnaires and assessing them
- **c** observing the mental processes of humans, creating theories and then testing them
- **d** observing people and animals, forming theories through tests and then publishing the findings.

4 Psychology can be described as a science that:

5 The science of biology contributed significantly to our knowledge of mental processes and the brain. Two particular areas that were highlighted were:
- **a** *nature versus nurture* and *survival of the fittest*
- **b** white peppered moths and black peppered moths
- **c** evolutionary theory and physiology
- **d** evolutionary theory and universal facial expressions.

6 Darwin observed that white peppered moths died out while the rarer black peppered moths of the same species were growing in number. This was caused by:
- **a** environmental changes due to the industrialisation of England, when pollution from industry blackened the walls of buildings making the white peppered moths more visible to predatory birds
- **b** environmental changes due to the industrialisation of England, when pollution killed off the white peppered moths but the black peppered moths of the same species were immune to the soot
- **c** climate changes due to global warming
- **d** environmental changes due to the industrialisation of Australia, when pollution from industry blackened the walls of buildings making the white peppered moths more visible to predatory birds.

7 Psychology uses a number of imaging techniques. For example, *f*MRI shows:
- **a** X-rays with detailed information about the structure of the brain and body
- **b** highly detailed 3D images of the brain's structure and can track the flow of oxygen when a person is asked to perform a mental task such as recalling a song title
- **c** brightly coloured pictures of the brain at work after injecting radioactive glucose
- **d** highly detailed 3D images of the brain's structure.

8 The social science part of psychology suggests that who we are and how we behave is influenced by _____ and _____. These factors are often referred to as _____.
- **a** genetics; environment; *nature versus nurture*
- **b** country of birth; genetics; *survival of the fittest*
- **c** genetics; family; *natural selection*
- **d** friends; family; *anger versus love*

9 Harry Harlow conducted experiments with baby monkeys. His findings in attachment were important because:
- a the findings could be applied to human babies as well
- b attachment in baby monkeys to wire mothers can be done successfully
- c the findings could be applied to other species, including reptiles
- d the findings showed that baby monkeys preferred the fake wire mother to the fake cloth mother.

10 Maria is in Grade 4 and she has often been crying and not sleeping since her grandmother became very sick and died three months ago. Her mother takes her to a psychologist who spends several sessions over some weeks talking with Maria. After this, Maria seems much more content and her sleep patterns are back to normal. The type of psychologist that Maria's mother is most likely to have consulted for such assistance is:
- a a sleep psychologist
- b a counselling psychologist
- c a clinical psychologist
- d an educational and developmental psychologist.

11 Forensic psychology has made important contributions to:
- a our understanding of criminal behaviours
- b our ability to predict likely criminal actions
- c rehabilitation of criminals
- d all of the above.

12 An educational and developmental psychologist mainly works with:
- a mentally ill patients with brain dysfunction
- b organisations such as the 'Quit' and 'Slip, Slop, Slap' campaigns
- c parents and children
- d teachers.

13 Counselling psychology has contributed to our understanding of:
- a the complex relationships that occur in the workplace (this information has been used to improve the performance of employees in organisations)
- b symptoms such as concentration problems, memory loss, attention difficulties or language and learning difficulties
- c treatments for offenders; assessment and treatment victims of crime
- d management of stress, grief and loss, chronic pain, depression

SHORT ANSWER

14 Outline psychology's origins as a science

2 marks

15 Explain how evolutionary theory relates to Psychology.

4 marks

16 Outline how case studies have benefited our knowledge of the brain and behaviour

3 marks

17 Explain the nature versus nurture debate.

2 marks

18 How does the social learning model explain a person's thinking and behaviour?

1 mark

19 It is thought that violent video games/ movies lead to an increase in aggressive behaviours. Explain this statement in terms of the nature and nurture debate.

5 marks

20 Explain why animals are used in scientific research.

3 marks

21 Outline the difference between a clinical neuropsychologist and a clinical psychologist.

4 marks