FOUR MODERN APPROACHES TO PSYCHOLOGY

In Chapter 3, we briefly explored the history of mental illness treatments, and saw how both classic and contemporary approaches have contributed to the development of psychology. For example, the behavioural approach prefers to study observable behaviours instead of mental processes, which are difficult to measure. Also, psychologists taking the cognitive approach became interested in what goes on in the mind, comparing the learning process with the way a computer works.

Today, the biological, behavioural, cognitive and socio-cultural approaches drive psychological research into human and animal behaviour. Each of these perspectives uses different methods to acquire knowledge, and each one uses a range of scientific experimental procedures in doing so.

KEY KNOWLEDGE
Major perspectives (biological, behavioural, cognitive and socio-cultural) that govern how psychologists approach their research into human behaviour.
[VCE Study Design 2013]
A range of perspectives

CHAPTER OVERVIEW

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Research into human behaviour continues to fascinate psychologists. Depending on their particular area of interest or approach, psychologists may undertake research through any of the four major perspectives: biological, behavioural, cognitive and socio-cultural.

In order to differentiate the fundamentals of each perspective, let us examine how each would investigate the very human concepts of ‘love and attraction’.

Biological approach

As mentioned in Chapter 3, the biological approach explains a person’s functioning in terms of bodily structures, biochemical processes and genetics. This perspective explores human behaviour through:
- invasive techniques, such as surgery, and electrical stimulation and lesioning (damaging) of particular areas of the brain
- non-invasive techniques, such as neuroimaging and other brain research methods, including:
  - heart rate, respiration rate
  - the galvanic skin response (GSR), that measures the electrical conductivity of the skin to determine physiological arousal; if a person is anxious—or in love—they will have greater levels of moisture on their skin (sweaty palms)
  - the electroencephalogram, that detects, amplifies and records the electrical activity of the brain
  - magnetic resonance imaging (MRI), that uses a large, rotating magnet and radio waves to provide a highly detailed computer-generated 3-D structure of the body/brain
  - functional magnetic resonance imaging (fMRI), that provides a highly detailed 3-D structure of the body/brain, while also showing which areas are most active (function); the functional aspect of the fMRI tracks the oxygen and blood flow during cognitive tasks, allowing the researcher to determine the exact location of brain's activation in real time; for example, if a person is speaking, there would be greater blood flow and oxygen consumption in the left temporal and frontal lobes of the brain
  - positron emission tomography (PET) scans, that measure activity of the brain during thinking tasks by tracking radioactive glucose (and other substances) that are injected into the bloodstream; they can also track neurotransmitters involved in the brain
  - CAT scans (or CT scans), that take 2-D images of the body/brain using x-rays, and combine multiple images to create 3-D models
  - the use of human and non-human subjects
- examining the effects of both legal and illegal drugs, enabling the development of medication to treat a variety of mental and physical disorders
genetics and evolutionary theory.

Consequently, the biological perspective places greater emphasis on physiological processes and genetics (nature) than environmental factors (nurture).

**Evolutionary theory**

The biological approach is strongly influenced by Charles Darwin’s theory of evolution, which proposes that we have evolved physically and mentally in response to our environment (Keegan 2009). Any behaviour or physical trait that is beneficial to our survival in a particular environment will be 'naturally selected', so that only the genetically 'fittest' survive. Behaviours (such as language) and emotional responses (such as love, anger or happiness) are pre-programmed from birth, and can be understood through biology and genetics.

So, how do love and attraction fit into the theory of evolution? According to this theory, love and attraction facilitate the selection of a genetically strong partner that can produce healthy children. Have you ever watched a peacock strut around waving his brightly coloured tail feathers? This dance of seduction is a courtship ritual designed to attract a female breeding partner. The female (the peahen) will select a mate that will allow her to produce the strongest possible chicks and thus maximise their chances of survival.
The behaviour of ‘peacocking’ is also evident in many species—including humans.

How much effort did you put into your appearance the last time you had a night out? Did you go out ‘peacocking’? Human courtship is a little more complex than that of a peacock, yet there are some important similarities. People not only consider the attractiveness of a potential partner, but may also consider their ability to financially support and protect them. Of course, there is also the unconscious drive that is part of our biology: to select a physically strong mate to reproduce fit and healthy children, and thus ensure the survival of the human species.

What happens when a child is born? Just as most animals are genetically predisposed to care for their young, humans are biologically programmed to form a strong bond and love their child. A mother’s attachment is essential to a child’s survival, especially during the first few years of life. The bond between parents is also often strengthened with the arrival of their child, which again helps the chances of the child’s survival. Consequently, these behaviours combine to illustrate evolutionary theory and the role of genetics in the survival of the fittest.

**Physiological processes**

Evolutionary theory and genetics provide insight into some behaviours related to love and attraction, but they do not explain the actual biological processes involved.

When we experience love and attraction, several brain structures are activated and neurotransmitters are released.

Have you ever gone to a party, looked across the room, locked eyes momentarily with an appealing boy or girl, and felt your heart skip a beat? Maybe you blushed and felt nervous? When a person meets a ‘special someone’, they experience physiological arousal similar to the ‘fight or flight’ response. With the release of adrenaline and noradrenaline, pupils dilate, heart rate and respiration rate increase, and palms begin to sweat. Interestingly, research has found that males are particularly attracted to women with large pupils because these are a sign of arousal and receptivity, and indicators of fertility and youth (Pincott 2008).
During this romantic moment, the amygdala, which is part of the limbic system, has become seriously active. At the same time, dopamine—a neurotransmitter that is associated with passion—activates the reward centres of the brain making the experience addictive. The release of oxytocin allows the couple to bond through cuddling and physical affection, while endorphins provide a euphoric sensation.

A study by Egger and Flynn (1963) found that when they electrically stimulated these areas in a normal house cat, the animal immediately became aggressive and tried to attack. Further research using other animals has confirmed these findings.

Yet, there is another important biological factor: pheromones. Pheromones are an individual’s chemical signature, or ‘smell’. Pheromones can either attract or repulse a potential mate, despite the deodorants, perfumes and scented soaps a person uses (Chapman, 2011). Biological research has also found that pheromones may provide important information about the compatibility of people’s immune systems. If you are attracted to a person’s pheromones, they are more likely to have a different immune system to you, which will lead to greater resistance to bacteria and viruses, and consequently healthier children.

The biological approach to understanding love and attraction emphasises the physical structures of the brain, the biochemical processes involved in physiological arousal, the neurotransmitters that reinforce the experience of love, and the genetic imperative to ensure the survival of the species. This perspective has had a long history of using both invasive and non-invasive procedures to better understand...
the relationship between the physical structure of the brain and behaviour. It also continues to play an important role in the understanding the biochemical processes of normal and abnormal behaviour.

<table>
<thead>
<tr>
<th>BIOLOGICAL APPROACH</th>
<th>RESEARCH PROCEDURES USED</th>
<th>HUMAN AND ANIMAL SUBJECTS</th>
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| Physiological psychology | Direct manipulation of the nervous system  
Can include surgery, electrical stimulation of neural areas and introduction of chemicals  
Establishes the connection between a particular area of the brain and the symptoms when damaged or stimulated | Mainly non-human subjects |
| Psychopharmacology    | Focuses on the effect of different drugs on brain activity and behaviour  
Develops effective and safe drugs with minimal side-effects  
Examines the effects of recreational drugs and determines long-term effects and damage | Animal subjects in the development of drugs and in monitoring the effects of illicit drugs  
Human subjects in comparing normal and abnormal brain function between individuals who use or have used illicit drugs and those who have not |
| Neuropsychology       | Focuses on brain dysfunction and behavioural problems caused by brain damage in humans  
Information is obtained through case studies and non-invasive experimentation  
Uses a variety of neuropsychological tests on brain-damaged patients to diagnose and determine the level of their functioning | Human and animal subjects |
| Psychophysiology      | Examines physiological activity and relates it to psychological processes  
Monitors heart rate, respiration rate and pupil dilation as well as EEG [brainwave activity during thinking]  
Research on consciousness and emotion using MRI and PET scans | Human subjects |

**Did you know?**

During the 1950s and 60s, it was discovered that electrical stimulation of particular parts of the brain could produce emotional responses such as anger and pleasure in animals (Olds 1956, in Weiten 1998). When researchers cut the corpus callosum—the band of nerve fibres that connects the left and right sides of the brain—in patients suffering from severe epilepsy, they discovered that language is specialised in the brain’s left hemisphere in humans (Sperry 1984). Studies on visual perception found that a picture flashed to the left visual field is processed more quickly in the right visual cortex (right hemisphere).

These discoveries contributed to our understanding of brain structures and behaviour.
1. What is the biological approach to psychology? Describe it.
2. Identify one historical theory that influences the biological approach.
3. Use Table 5.1 to answer these questions:
   a. Name two subfields of the biological approach, and identify the key differences between them. Present your work in a table.
   b. Norma, a 43-year-old woman, was involved in a car accident. She suffered a severe blow to the head, which left her with brain damage. Which biological subfield would Norma most probably see to help assess her functioning? Explain your answer.
   c. Why do some biological subfields use animals in research? Explain using an example.

**BIOLOGICAL EXPERIMENTS IN PSYCHOLOGY**

There are numerous links on the Psychology Units 1 & 2 o-book that explore the many different areas of the biological approach in psychology. Choose one of the links, select an experiment that interests you, and present your information in either a Word document or a PowerPoint presentation.

**Behavioural Approach**

John B. Watson founded the behavioural (or behaviourist) approach to psychology in 1915. He shifted the focus of psychology from examining the mind or consciousness to studying observable behavioural responses. He embraced the notion of the British philosopher John Locke (1632–1704) that our mind was like a blank slate (tabula rasa) at birth waiting to be filled with life’s experiences and wrote:

> Give me a dozen healthy infants, well-formed, and my own special world to bring them up in and I'll guarantee to take any one at random, and train them to become any type of specialist I might select (Watson 1924, p. 82).

Watson believed that humans learn as a result of their environment, by either a stimulus–response association or through reinforcement. He emphasised the importance of nature (environmental influences) over nurture (genetics).

On this basis, the behavioural movement began to manipulate environmental conditions to see how they could shape and alter both animal and human behaviour.

Ivan Pavlov (1849–1936) and B.F. Skinner (1904–90) used systematic scientific methods to develop two of the most influential theories:

- **classical conditioning** (Pavlov)—a learning process where an animal or organism can passively learn to show a naturally occurring reflex action, such as salivation, in response to any stimulus that does not usually elicit that response (learning through association)
- **operant conditioning** (Skinner)—an active learning process where an animal or organism’s voluntary response is controlled by its consequences:
  - behaviours that are followed by a pleasant consequence (reinforcer) are more likely to be repeated (strengthened), while
  - behaviours that are followed by an unpleasant consequence (punisher) are less likely to be repeated (weakened).
Classical conditioning

Pavlov accidentally discovered classical conditioning (also known as Pavlovian conditioning) while trying to measure how much saliva a dog produced during meals. He discovered that a neutral stimulus such as a bell could cause a dog to salivate if the bell was rung immediately before giving the dog food over several trials. The animal passively learned to anticipate feeding time and produced saliva before the arrival of the food—it was learning through association.

When classical conditioning occurs, we have no control over the learning process and the response is always reflexive in nature—for example salivation, an eye blink or a physiological response such as anxiety, excitement, happiness or extreme fear ('fight or flight' response)—as we see in phobias.

Today, classical conditioning principles such as graduated exposure and aversion therapy are used to treat phobias and help people to give up unwanted behaviours, such as smoking and nail-biting.

GRADUATED EXPOSURE (SYSTEMATIC DESENSITISATION)

Behaviourists discovered that phobias were developed through classical conditioning. A person could passively learn to associate a naturally occurring reflex (such as fear) to a stimulus (such as a spider) and thus develop a phobia.

Graduated exposure, also known as systematic desensitisation, uses a counter-condition technique to break the association between the feared stimulus (spider) and the response (fear). After teaching the patient relaxation techniques and developing a hierarchy of fears (a list from 1 to 10, listing the most frightening situation to the least frightening situation), the psychologist begins by showing the patient a picture of a spider, and then gives them time to practise using the relaxation techniques to control the fear. Over the next few sessions, the patient will be shown more and more confronting pictures and models of spiders, until they are able to control their fear in the presence of a real spider.
FIGURE 5.10 Aversion therapy is used to help people stop biting their nails. An unpleasant-tasting substance is painted onto their fingers so that each time they try to put them in their mouth, the taste is so revolting that it stops them. Interestingly, some people actually develop a taste for this foul-tasting substance and continue to bite their nails!

AVERSION THERAPY

Aversion therapy is another application of classical conditioning, whereby a person with an unwanted behaviour (such as nail-biting) learns to associate the unwanted behaviour with an unpleasant event (such as the taste of a revolting substance that is painted on the fingers). Every time the person tries to bite the nails, he or she tastes the revolting substance. In theory, this repeated association between the unwanted behaviour and the unpleasant-tasting substance changes a person's behaviour. The 1972 movie A Clockwork Orange shows how an extreme form of aversion therapy is used to change the violent behaviour of a young man.

PHOBIAS AND AVERSION THERAPY

1. What did John B. Watson mean by the statement, 'Give me a dozen healthy infants, well-formed, and my own special world to bring them up in'? Explain your answer in terms of the behavioural approach.

2. For more information about systematic desensitisation, visit the website A Guide to Psychology and Its Practice. Then answer the following questions:
   a. Conduct an internet search for 'phobias', and select two phobias to present to the class.
   b. Choose one phobia. Using a flow chart, show the steps used in systematic desensitisation against that phobia.
   c. Is systematic desensitisation effective? Explain your answer.

3. For more information about aversion therapy, visit the website Psychologist World. Then answer the following questions:
   a. What other unwanted behaviours can be treated using aversion therapy? Find three and discuss.
   b. Is aversion therapy effective? Explain your answer.

Operant conditioning

Operant conditioning, unlike classical conditioning, involved an active learning process where behaviour is shaped through the consequences of the subject's actions (either reinforcer or punisher consequences). This is exactly the way we train a puppy. Each time the puppy sits on command, it is rewarded with a treat (food reinforcer). When the puppy has an accident on the floor in your bedroom, the puppy is punished (either yelled at or given a quick spray with water: the punisher). Eventually, the puppy learns which behaviours receive pleasant consequences and which behaviours receive unpleasant consequences.

FIGURE 5.11 A child trains her puppy by using rewards and punishments: an everyday example of operant conditioning.
THE SKINNER BOX

American psychologist B.F. Skinner pioneered the first systematic approach to control environmental conditions. He invented a device known as the **Skinner box**, which enabled the researcher to manipulate the apparatus to either reward (give food to) or punish (administer an electric shock to) the animal. The timing and frequency of rewards or punishments could be altered, and the frequency of response was recorded automatically.

![Skinner box in action](image)

**BEHAVIOUR MODIFICATION**

**Behaviour modification** uses operant conditioning techniques to change unwanted human behaviours. In seeking to alter the behaviour of a child, there is an emphasis on rewarding the child for desirable behaviour (such as a positive comment when a child is playing well with a brother or sister) and ignoring or punishing undesirable behaviours (which can take the form of being sent to their room). Rewarding ‘good’ behaviour works far better than punishing ‘bad’ behaviour.

One key element in this approach, timing: the consequence must be given very soon after the behaviour; otherwise, the child will not be able to work out why he or she is being rewarded or punished.

This is an effective method used by parents and teachers in managing a range of behaviours. For example, each time a person is complimented on their achievement in a test, this acts as a positive reinforcer that increases the likelihood of that behaviour occurring in the future.

The behavioural approach to love

The principles of classical conditioning and operant conditioning can be applied to the theme of this chapter: love and relationships.

**LOVE AND CLASSICAL CONDITIONING**

Imagine that you have just started dating someone. Every time you meet up, or even when you see their name flash up on your mobile, you experience a reflexive emotional response: pleasure and excitement (physiological arousal). In terms of classical conditioning, repeatedly spending time with your boyfriend or girlfriend has resulted in experiencing feelings of pleasure and excitement at the mere mention of their name.

Text messages between people who are dating involve both classical conditioning and operant conditioning elements. The individualised SMS notification that you assign to your boyfriend or girlfriend elicits feelings of excitement each time you hear the ‘bing’, while the text of their messages act as positive reinforcers.

![Skinner trained pigeons](image)
**LOVE AND OPERANT CONDITIONING**

As we have seen, operant conditioning involves an active learning process that is guided by environmental consequences (reinforcer/punisher). We can see the application of operant conditioning principles in the courtship behaviours of people. For example, when you like someone, you might buy that person a gift or send them romantic text messages and emails. These voluntary behaviours are positive reinforcers (pleasant consequences) for the person and may increase the likelihood of them continuing the relationship. If the other person likes you too, you will be rewarded with affection, perhaps hand-holding and hugs (more positive reinforcement). If you or they decide to end the relationship, you may stop texting and emailing regularly until there is no contact at all. Once the positive reinforcers are removed, you may no longer experience the same pleasant feelings when you think about that person.
The reflexive emotional response of excitement each time two people who are dating see or hear from each other (developed through classical conditioning) is, then, actively reinforced through gifts, messages, hand-holding and hugs (maintained through operant conditioning) (Chapman 2011).

We like to think that finding our soul mate is due to 'chemistry'; however, we deliberately meet in situations that will almost guarantee a good time, such as going for a walk, watching a romantic movie, or catching up for a great meal. We organise situations (dates) that facilitate a pleasurable experience. After several of these dates, we might fall in love.

**TABLE 5.2 The behavioural approach**

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<th>TYPE OF LEARNING</th>
<th>RESEARCH PROCEDURE USED</th>
<th>ANIMAL OR HUMAN SUBJECTS</th>
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<td>Classical conditioning (learning through association)</td>
<td>Laboratory experiments</td>
<td>Animal and human</td>
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<tr>
<td>Operant conditioning (learning through consequences)</td>
<td>Skinner box, Automated data-collecting chambers (including the Skinner box), whereby researcher can manipulate frequency and timing of reward or punishment</td>
<td>Animal and human</td>
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**LEARNING**

1. Outline the key elements of the behavioural approach.
2. Describe the two learning approaches discovered by Ivan Pavlov and B.F. Skinner.
3. Identify the key difference between the two types of learning. Present your answer in a table (you may need to conduct further research into this area via the internet).
4. Using the internet, find out what a 'token economy' involves, and how it is applied in the real world.
5. What methods would you use to train a puppy?
6. What other examples can you think of where operant conditioning is used?

The behavioural approach explores how environmental influences shape behaviour. Classical conditioning techniques are successfully used to treat phobias and to stop unwanted behaviours such as smoking, nail-biting and alcoholism, while operant conditioning techniques are used to train seeing-eye dogs, devise detention systems in schools, and maintain law enforcement, with fines and the deduction of points. Classical conditioning and operant conditioning also play important roles in the development and maintenance of love and affection in romantic relationships.

However, human behaviour is not just guided by environmental influences. Our cognition, or what we think, also plays an important role.
Cognitive approach

Reality does not exist in the concrete objects we perceive but the abstract forms that these objects represent.

Plato

Unlike the behaviourists, who study observable behaviours that are shaped by the environment, cognitive psychologists focus on understanding the workings of the mind. They scientifically investigate thinking processes such as perception, learning, memory, reasoning and understanding, and take a multidisciplinary approach. The human mind is viewed as an information-processing system or computer, where mental processes are broken down and analysed as theoretical models (Zhong-Lin & Dosher, 2011).

Cognitive psychology has three main branches:
- human experimental cognitive psychology uses conventional systematic experimental methods to investigate thinking processes, such as response time and eye-tracking
- computational cognitive psychology develops mathematical and computer models to symbolise human cognition
- neural cognitive psychology uses brain imaging (for example, EEG, PET and fMRI) to link brain structures with thinking processes.

Cognitive psychology emerged as an important alternative during the 1950s. Cognitive psychologists disagreed with the behavioural movement, which completely ignored mental processes. The focus shifted from the effect of environmental influences alone to an investigation of what happens in the mind between the environmental stimulus and the behavioural response.

So, how does the cognitive approach explain our thoughts? What happens in our brain that enables us to function in our world?

Cognitive theorists believe that incoming information from our environment (environmental stimuli) is broken down into 'units of information', manipulated based
on our experiences, then stored for later use. These stored mental representations are activated each time we encounter a similar situation, person or object, and allow us to respond in an appropriate and sometimes predictable way. When we encounter something different that we ‘can’t compute’, we either add this to an existing set of concepts or create a new one.

Mental representations are thought to be made up of three constructs: concepts, prototypes and schemata. We can better understand these if we use the theme of this chapter: love and relationships.

- **Concepts**: A concept is a unit of information made up of items with similar properties or characteristics, such as objects, ideas, relationships or activities (Cherry 2012). Each concept has a list of specific details:
  - A boyfriend/girlfriend is a male/female. They have specific physical characteristics of a male/female, such as the presence/absence of facial and body hair, and a masculine/feminine physique.

- **Prototypes**: Prototypes represent the ‘ideal’ mental representation of the concept:
  - We have developed a prototype of what constitutes the ideal boyfriend/girlfriend, so when we meet a potential partner, we can compare their characteristics against our prototype. Our ideal boyfriend/girlfriend might have characteristics such as being loyal, affectionate, fun, with a good sense of humour, who has similar interests, and so forth.
  - Our prototype for the ideal boyfriend/girlfriend is strongly influenced by standards of perceived attractiveness. This information is gained from advertising, television, magazines and social media, and may explain why so many young people suffer from self-esteem issues.

- **Schemata**: A schema is made up of several concepts that act as mental shortcuts to more efficiently interpret situations, people and objects. These larger units are developed through experience, and provide a mental model that allows us to predict what to expect from a similar situation, object or person. We have schemata for a range of beliefs, situations, places and people.
  - We have developed a schema of what a boyfriend/girlfriend is and what we can expect from the relationship; for example, a boyfriend/girlfriend should have all of the characteristics mentioned under ‘concept’ and ‘prototype’, and may also be physically attractive, honest, generous, a good kisser and fun to be with.

![Figure 5.11 What is your prototype for the ideal boyfriend/girlfriend?](image)
Therefore, according to the cognitive perspective, mental processes can be broken down into units of information developed through personal experiences. This approach believes that we are more than organisms at the mercy of environmental stimuli with predictable and mouldable behavioural responses. Concepts, prototypes and schemata for a range of people, objects, situations and relationships enable us to navigate and operate in the world. Thus, the mind is like the hard drive of a computer, where concepts are analogous to the sequences and patterns of ‘0s’ and ‘1s’ in binary code.

Although cognitive psychology uses systematic scientific methods of data collection, it does not necessarily explain influence of social or cultural influences.

**Table 5.3** The cognitive approach

<table>
<thead>
<tr>
<th>RESEARCH METHOD</th>
<th>DESCRIPTION</th>
<th>VALUE</th>
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<tbody>
<tr>
<td>Naturalistic observation</td>
<td>Observing real-life situations, such as work settings, classrooms, homes</td>
<td>People are more relaxed in their own environment</td>
</tr>
<tr>
<td>Case studies</td>
<td>Intensive study of single individuals and the beliefs and attitudes that determine their behaviours</td>
<td>Rich in detail about the individual; great for developing theories and exploring further research</td>
</tr>
<tr>
<td>Self-reports</td>
<td>Introspective method where the participant describes his or her own thinking in progress, or as remembered</td>
<td>Participant’s point of view, which may not otherwise be available</td>
</tr>
<tr>
<td>Controlled laboratory experiments</td>
<td>Laboratory research controls many aspects of the experiment to minimise as many extraneous variables as possible</td>
<td>Excellent method of testing hypotheses; allows the experimenter to control unwanted influences</td>
</tr>
<tr>
<td>Psychobiological research</td>
<td>Studies the relationship between thinking processes and brain structures and functions</td>
<td>Great evidence of cognitive functions and their relationship with physiological activity</td>
</tr>
<tr>
<td>Computer simulations and artificial intelligence</td>
<td>Attempt to make computers copy human thought processes; Attempt to make computers demonstrate ‘intelligent thought’</td>
<td>Able to test theoretical models of thinking</td>
</tr>
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The cognitive approach also involves research in perception, memory, language and thinking. Table 5.4 provides an indication of the scope of cognitive psychology and the broad range of research areas.
### Table 5.4 Research areas in cognitive psychology

<table>
<thead>
<tr>
<th>Research Area</th>
<th>Topics</th>
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<tbody>
<tr>
<td>Perception</td>
<td>&gt; Pattern recognition</td>
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<tr>
<td></td>
<td>&gt; Object recognition</td>
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<tr>
<td></td>
<td>&gt; Time sensation</td>
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<tr>
<td>Memory</td>
<td>&gt; Ageing and memory</td>
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<td></td>
<td>&gt; Constructive memory</td>
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<tr>
<td></td>
<td>&gt; Emotion and memory</td>
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<td>&gt; Eyewitness memory</td>
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<tr>
<td></td>
<td>&gt; False memories</td>
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<td></td>
<td>&gt; Working memory</td>
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<td></td>
<td>&gt; Long-term memory</td>
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<td></td>
<td>&gt; Short-term memory</td>
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<tr>
<td>Mental representation</td>
<td>&gt; Mental imagery</td>
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<td>&gt; Mental models</td>
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<td></td>
<td>&gt; Grammar and linguistics</td>
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<td></td>
<td>&gt; Language acquisition</td>
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<tr>
<td>Thinking</td>
<td>&gt; Decision-making</td>
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<td>&gt; Judgment</td>
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<td>&gt; Logic and formal reasoning</td>
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<td>&gt; Problem-solving</td>
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1. What is the key difference between the behavioural approach and the cognitive approach?
2. Explain why cognitive psychologists view the mind as a computer.
3. Outline how we develop an understanding of objects, people or relationships.
4. Using your own example, explain how we might develop a concept, prototype and schema for a particular person, object or situation.
5. This task involves two methods for writing down the words of a song:
   a. Listen to a song of your liking and try to write down the words while you listen to it.
   b. Next, listen to a different song of your liking, then try to write the words afterwards.

Listen to both songs again. How many words did you remember? Which method was more effective? Why?
6. What real-life benefits have been gained from the cognitive approach?
7. What research areas are investigated in cognitive psychology?
8. What methods do cognitive psychologists use to research human thoughts? Name two and explain what is involved and the value each contributes.
Socio-cultural approach

Margaret Mead and Ruth Benedict, who were both anthropologists with an interest in the relationship between culture and personality, argued that:

- individual psychology is fundamentally shaped by cultural values, ideals and ways of thinking. As children develop, they learn to behave in ways that conform to cultural standards (LeVine 1982, in Burton, Westen & Kowalski 2009).

As discussed in Chapter 3, the **socio-cultural approach** researches the relationship between psychological-mental processes and behaviour in terms of:

- social norms: 'rules and expectations about how members of a social group should think or behave', and
- cultural influences: 'the shared beliefs, values, traditions and behaviour patterns of a particular group or nationality' (Taylor, Peplau & Sears 1997).

This approach seeks to understand behaviour within a particular social and cultural context, and make comparisons between different cultures or social groups—looking for similarities and differences in behaviour, with the aim of examining how a culture influences psychological processes.

Within the socio-cultural approach are three interrelated subfields: cultural psychology, cross-cultural psychology and social psychology.

- **Cultural and cross-cultural psychology** investigates:
  - multiculturalism, and different customs, beliefs and values
  - refugees and asylum seekers, cultural identity and social identity
  - cultural stereotypes, prejudice and racism
  - Indigenous psychology, including:
    - traditional Aboriginal culture
    - the European colonisation of Australia
    - the Stolen Generations.

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**FIGURE 5.12** Cultural and cross-cultural psychologists may investigate Indigenous psychology, such as issues relating to the Stolen Generations.
- Social psychology investigates the effects of a particular society and group dynamics to explore:
  - the impact of social groups on behaviour
  - conformity, prejudice, obedience to authority, leadership and decision-making
  - the influence of personal relationships and gender differences on helping behaviour, pro-social behaviour and anti-social behaviour.

Research methods for all three subfields include naturalistic observations, self-reports and controlled laboratory experiments. There are, however, limitations, as often researchers will explore differences with their own personal bias, which can alter the way in which they report the data.

The socio-cultural perspective believes that both cultural and social factors help to guide our thinking and consequent behaviours.

**Love and cultural/cross-cultural psychology**

In relation to this chapter's theme of love and relationships, it is important to note that the process of courtship and the qualities considered to be attractive can differ, depending on a person's cultural background and accepted social norms. Therefore, the way that people develop romantic and long-term relationships can vary significantly.

So, how do people from other cultures find a suitable spouse (husband or wife)? In China, hundreds of parents gather in parks on a weekly basis to find partners for their children. Armed with photographs and resumes of their children, they talk to other parents in these parks in the hope that they will find a suitable match for their adult son or daughter. This custom has emerged due to the long working hours in China, where young adults simply don't have time to meet and go out with other young people.

![Figure 5.13](image)

**FIGURE 5.13** Armed with photographs and resumes, Chinese parents gather in parks every week, hoping to find a husband or wife for their son or daughter.

Matchmaking is also seen in other countries and cultures. It often involves parents matching their children with those who fit within a particular social standing in the community, are employed in a respectable profession, and who are financially stable. In some parts of India, the matchmaking process may also include a trip to the astrologer, to ensure that the future of the union will be blessed with children and money.
Sometimes particular qualities or physical traits may be highly valued by a culture. For example, some parts of society in Mauritania (a country in Africa) believe that the bigger the woman, the more attractive she is. So, from an early age, girls are fattened to ensure they find the right man in a yearly ceremony called Leblouh. This practice has drawn criticism from human rights campaigners, since the girls are often force-fed up to 16,000 calories per day, causing potential health issues in later life.

Males from the nomadic African tribe the Wodaabe, participate in an annual event called the Guerewol. The Guerewol is like a male beauty-pageant where single young men adorn themselves with elaborate make-up and clothing, and perform the ‘Yaake’ – a traditional courtship dance to attract the attention of young eligible women. In this culture, height, and the whiteness of their eyes and teeth are considered highly attractive – so part of their performance includes the rolling of their eyes and excessive smiling to show off their best features!

**Figure 5.14** Some young girls in Mauritania in Africa are force-fed to conform to a particular ideal.

**Figure 5.15** Young Wodaabe men prepare for the Guerewol.

**Figure 5.16** Performing the Yaake, to attract eligible young women.

**Love, and social psychology**

How do you meet ‘the one’? In Australia and most other Western countries, people generally get to choose their own partner. With the rise of web-based industries and people working longer hours than ever, meeting people online has become ‘big business’. Dating websites use personality profiling and collect other information to help people find their ‘perfect match’ (although just because two people seem like a good match from their profiles, they may not actually get on when they do eventually meet!) For safety, most dating sites recommend that users keep their personal information private, choose a safe place for the first date, and do not get financially involved with people they have just met.
Then there is ‘speed dating’: a highly organised event where an equal number of males and females spend approximately five minutes with each person to see if they ‘connect’.

These new courtship customs are popular in Western countries whose cultural and social expectations allow freedom of choice. However, this is not the case for all Australian, as some have different cultural customs and beliefs.

**TABLE 5.5 Socio-cultural psychology research topics**

<table>
<thead>
<tr>
<th>CULTURAL AND CROSS-CULTURAL PSYCHOLOGY</th>
<th>SOCIAL PSYCHOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>The impact of multiculturalism</td>
<td>Social cognition</td>
</tr>
<tr>
<td>Cross-cultural differences in customs, beliefs and values</td>
<td>Explaining social behaviour</td>
</tr>
<tr>
<td>Refugees and asylum seekers</td>
<td>Prejudice and group differences</td>
</tr>
<tr>
<td>Ethnic identity, personal identity and social identity</td>
<td>Obedience to authority</td>
</tr>
<tr>
<td>Prejudice and racism</td>
<td>Interpersonal attraction</td>
</tr>
<tr>
<td>Indigenous psychology and traditional Aboriginal culture</td>
<td>Personal relationships</td>
</tr>
<tr>
<td>Impact of European occupation of Australia</td>
<td>Behaviour in groups and the group's influence on performance, decision-making and leadership</td>
</tr>
<tr>
<td>The Stolen Generations</td>
<td>Gender differences within a society</td>
</tr>
<tr>
<td>Cultural stereotypes</td>
<td>Helping behaviour, pro-social behaviour and altruism</td>
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<tr>
<td></td>
<td>Aggression and origins of aggression</td>
</tr>
</tbody>
</table>

1. Outline the socio-cultural approach and the areas it explores.
2. How can cultural differences alter the way a person behaves?
3. Why is it important to study different cultures?
1. What is multiculturalism and why is it an important area of study for Australian socio-cultural researchers? Explore this question on the internet and present your findings in a document with images.

2. Indigenous Australians are also known as the 'first Australians'. How do their beliefs and customs differ to European, Asian, Middle Eastern, and other beliefs and customs? Explore this question on the internet and present your findings in a PowerPoint presentation.

3. We hear about many reports of 'boat people' in the news. Research one group that has travelled to Australia via one of these boats, and discover why they left their home country and their experiences since their arrival here. Present your findings in a report or essay (500 words).

4. The socio-cultural approach also looks at the effect of groups on behaviour, such as conformity, obedience, leadership, and prejudice. Choose one of these areas and research one psychological experiment. Outline the aim, method, results and conclusions in a report.

SUPPORTING UNDERSTANDING

One study compared nations and cultures that place great importance on individualism (the power of the individual within the group) with those emphasising collectivism (the right of the whole group to override the individual).

Countries such as Australia, the United States and many European nations were found to place great value on individual independence—a person's behaviour is guided by personal goals, rather than the goals of the family, work or 'tribe' (individualism); while some societies in Africa and Asia place greater importance on loyalty to family, following group rules and maintaining good relationships with members of their family or work group (collectivism) (Taylor, Peplau & Sears 1997).

The individualist approach can be seen in large companies where profit is more important than loyalty to employees. There is a breakdown in the idea of 'loyalty' between employer and staff. Little importance is now given to how long a person has worked for a company when decisions about retrenchments or relocations are made. The ultimate goal of organisations is to maximise profit—sometimes at the expense of the individual. We see this with many companies where hundreds of people can be left without a job due to closure of Australian-based operations, which are often more expensive to run than those in other countries where labour is cheaper.

**FIGURE 5.16** While companies in countries such as Japan try to retain their employees in difficult economic times, many Australian and American companies do not.
TABLE 5.6 Differences between individualist and collectivist cultures

<table>
<thead>
<tr>
<th>INDIVIDUALIST CULTURES</th>
<th>COLLECTIVIST CULTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idea of self is separate from the group</td>
<td>Idea of self is defined in terms of the group</td>
</tr>
<tr>
<td>Independence is emphasised</td>
<td>Interdependence with group is emphasised</td>
</tr>
<tr>
<td>Focus is on fulfilment of personal goals</td>
<td>Focus is on fulfilment of group goals</td>
</tr>
<tr>
<td>Individual wealth and material items</td>
<td>Collective or group ownership</td>
</tr>
<tr>
<td>Leadership, competitiveness, aggression</td>
<td>Conformity, obligation, loyalty</td>
</tr>
</tbody>
</table>

1. Research two Australian-based companies that have recently closed or are planning to close their Australian-based operations and answer the following questions:
   a. What is the name of the company?
   b. How long has this company been in Australia?
   c. How many staff members did it employ prior to the restructure/closing?
   d. How many staff members will be retrenched?
   e. Is this operation closing for good or is it sending its work overseas?
   f. If the latter, where is it sending the work? Why do you think this organisation is taking its business operations to this country?

2. Outline how the operations of one of the companies you have investigated illustrates the difference between an individualistic versus collective approach to employment in society.

Conclusion

- The biological, behavioural, cognitive and socio-cultural perspectives provide a unique insight into the theme of love and relationships:
  - The biological approach explains the physiological processes involved in falling love and the evolutionary need to find a genetically suitable partner.
  - The behaviour approach places greater emphasis on environmental influences, so that the emotional experiences of ‘pleasure’ and ‘excitement’ (linked with falling in love) are established through stimulus-response, and romantic behaviours are shaped through consequences (such as a bunch of flowers or an SMS).
  - The cognitive approach views our brain as a computer and reduces our thinking processes to ‘units of information’, where our concept of love, relationships and the ideal boyfriend/girlfriend are constructed through our experiences.
  - Finally, the socio-cultural approach adds the final layer to our understanding by providing a framework that incorporates culture background, social norms and the influence of groups on our thoughts, feelings and behaviours on love and relationships.
The biological approach (also known as biopsychology) explains a person's functioning in terms of bodily structures, biochemical processes and genetics. Environmental factors (nurture) are put to the side, with a greater emphasis/importance placed on genetics (nature).

The biological approach is strongly influenced by Charles Darwin's theory of evolution—survival of the fittest. Human and animal behaviour is guided by the need to select the most genetically strong partners for the survival of the species.

The biological approach uses invasive techniques such as surgery, electrical stimulation and lesioning of particular areas of the brain. It also uses non-invasive techniques, such as neuroimaging, and other research methods, such as measuring heart rate and respiration rate, galvanic skin response (GSR), electroencephalogram (EEG), magnetic resonance imaging (MRI), functional magnetic resonance imaging (fMRI), positron emission tomography (PET) and CAT scans.

The biological approach uses human and non-human subjects, explores the effects of legal and illegal drugs, and helps develop medication for a range of mental and physical disorders.
John B. Watson founded the behavioural approach in 1915, shifting the focus of psychology from examining the mind/consciousness to the study of observable behavioural responses. The British philosopher John Locke (1632–1704) believed that the mind was like a blank slate or *tabula rasa* at birth, on which life experiences are written.

The research methods employed by behaviourists were based on observation of animal and human behaviours. Instead of using invasive surgical procedures or transection techniques, they administered either a reward or punishment under different environmental conditions to monitor behavioural changes in the learner.

Classical conditioning (Ivan Pavlov) is a passive learning process where an animal can learn to show a naturally occurring reflex action, such as salivation, in response to any stimulus that does not usually elicit that response (learning through association).

Operant conditioning (B.F. Skinner) is an active learning process where an animal’s voluntary response is controlled by consequences (reinforcer/punisher).

Cognitive psychologists focus on trying to understand the workings of the mind, likening the process of learning to the workings of a computer. They investigate learning, perception, memory, attention and problem-solving.

Cognitive psychology has three main branches: human experimental cognitive psychology, computational cognitive psychology and neural cognitive psychology. This approach uses conventional experimental methods, develops mathematical and computer models to symbolise human thinking, and uses brain imaging to link brain structures with cognition.

Cognitive psychologists believe that people develop an understanding of their world through experience. Ideas about objects, people, situations and relationships are understood in terms of concepts, prototypes and schemata.

The socio-cultural approach looks at the relationship between psychological/mental processes and behaviour in terms of social norms (the rules and expectations about how members of a social group should think or behave and cultural influences (the shared beliefs, values, traditions and behaviour patterns of a particular group or nationality) (Taylor, Peplau & Sears 1997).

Within the socio-cultural approach are three interrelated subfields: cultural psychology, cross-cultural psychology and social psychology.

In terms of cultural and cross-cultural psychology, researchers have examined the characteristics of particular cultures and then compared them with others.

The social psychologist takes a slightly different research approach and may look at the psychological factors involved in behaviour such as conformity—the process of changing attitudes or behaviour to accommodate the standards of a group.
→ TEST YOUR UNDERSTANDING

MULTIPLE CHOICE

1. The biological approach is best explained as the study of:
   a. psychological and physiological impacts on behaviour
   b. mental processes, through questionnaires, neuroimaging and observation
   c. biological, biochemical and genetic influences on behaviour
   d. behaviours in terms of stimulus–response and consequences.

2. In conducting studies on aggression, researchers found that the ____________ and ____________ were linked.
   a. medulla; hypothalamus
   b. hypothalamus; amygdala
   c. amygdale; pons
   d. pons; medulla.
Use Table 5.1 to answer the next two questions.

3. The psychopharmacological (biological) approach:
   a. focuses on the physical and behavioural effects of various legal and treatment drugs on the brain
   b. focuses on alcohol and painkillers and how they affect a person’s state of mind
   c. focuses on mental disorders that are caused by drugs
   d. focuses on treatments for schizophrenic patients.

4. Neuropsychology studies the ‘thinking’ processes of the biological perspective and uses a range of neuropsychological tests to help diagnose, manage and rehabilitate people who have suffered brain illness/injury. One such assessment tool is:
   a. Wechsler Memory Scales
   b. fMRI questionnaire
   c. 3-D picture scale
   d. Wechsler Intelligence Scale.

5. The behavioural approach focuses on:
   a. mental processes and behaviour
   b. the study of observable behavioural responses
   c. understanding how the mind processes information and its relationship with structures of the brain
   d. behaviours that can only be examined on an individual basis.

6. Aversion therapy has had mixed success in being able to help in eliminating unwanted behaviours such as:
   a. alcoholism and thumb-sucking
   b. stopping babies from crying
   c. phobias
   d. Clockwork Orange syndrome.
   The most systematic approach used by behaviourists was developed by:
   a. B.F. Skinner
   b. Ivan Pavlov
   c. Charles Darwin

8. One form of learning that involves rewards or punishments in response to a behaviour is known as:
   a. classical conditioning
   b. modelling
   c. operant conditioning
   d. aversive conditioning.

9. Jake received a puppy for his birthday. He decided to call him Rex. Rex was very cute but had a habit of digging holes and chewing shoes. Jake took Rex to obedience school, but his attempts to train Rex were not very successful. Which type of learning would Jake have been using for training Rex?
   a. operant conditioning
   b. classical conditioning
   c. obedience training
   d. operant training.
10 Operant conditioning has sometimes been described as 'learning through consequences', where behaviours can be learned through reward or punishment. _______ is one method of applying operant conditioning principles to either a person or animal:
   a systematic desensitisation
   b behavioural modification
   c systematic punishment
   d behavioural desensitisation.

11 The cognitive approach likens the workings of the mind to:
   a the processes of a computer
   b the observable behaviours of people and animals
   c the biochemical processes of the brain
   d the unconscious mental processes that control behaviour.

12 The cognitive approach investigates a range of areas, including:
   a perception, object recognition
   b memory, emotion
   c mental representation, grammar and linguistics
   d all of the above.

13 The socio-cultural approach includes the following subfields:
   a social psychology, cultural psychology, cross-cultural psychology
   b cognitive psychology, cultural psychology, social psychology
   c social psychology, cross-cultural psychology, psychopharmacology
   d cross-cultural psychology, anthropological psychology, social psychology.

14 Social norms are:
   a rules and expectations about how a person should behave at a social gathering
   b rules that are normal for a particular society
   c rules and expectations about how members of a social group should think and behave
   d rules and expectations about how a person should behave in a particular situation in a particular culture.

15 Some of the cultural and cross-cultural research areas include:
   a brain functioning, psycholinguistics, social norms
   b obedience and authority, personal relationships, case studies
   c the impact of multiculturalism, cultural stereotypes, the Stolen Generations
   d aggression, conformity, controlled laboratory experiments.

16 The biological approach has subfields that specialise in different areas of research. Identify two of these and explain how they differ.

17 Using the internet, research the work of Roger Sperry on hemispheric specialisation. What research methods did he use? What did he discover about the different sides of the brain?

18 Which areas of the brain have been linked with aggression?

19 Explain how the biological perspective explains love and relationships.

20 Why are evolutionary theory and genetics important to the survival of humans and other species?

21 What is aversion therapy and how is it used? Think of your own example where aversion therapy might be useful. Explain how it would work.

22 What is behaviour modification? How can it be applied in a real-life setting?

23 According to the cognitive approach, what is it that makes humans different from other species? Explain your answer.

24 Identify two research methods that the cognitive approach uses in explaining mental processes and behaviour.

25 Identify two research areas that are explored by cognitive psychology.
   a Define in detail what the socio-cultural approach involves.
   b Identify four socio-cultural areas of research.