Chapter 4
Learning Theory Perspectives on Personality

Key themes

- Historical learning theory approaches to personality
- Pavlov and classical conditioning
- Watson and behaviourism
- Skinner and operant conditioning
- Integrative personality theory of Dollard and Miller
- Social cognitive approaches of Bandura
- The concept of self-efficacy
- Rotter and the locus of control
- Mischel and social learning theory

Learning outcomes

After studying this chapter you should:

- Understand the principles underlying the learning theory approach to personality
- Be aware of the opposing views about whether differences in behaviour are learnt or result from differences in personality
- Be able to identify the learning theorists who have contributed to personality theory
- Understand the principles of classical conditioning and some of its applications
- Appreciate Skinner's approach to psychology
- Understand the principles underlying operant conditioning
- Be aware of the work of Dollard and Miller, who attempted to integrate psychodynamic and behavioural concepts within a learning theory framework
- Understand Bandura's social learning approach to personality
- Appreciate the concept of self-efficacy
- Have developed an understanding of the concept of locus of control
- Understand the contribution that Mischel has made to personality research
- Appreciate the person-situation debate in personality
- Know how to critically evaluate learning theory approaches to explaining personality

Introduction

Do you love parties and never miss one, or do parties make you anxious so that you avoid them if possible? What causes these differences? The concept of personality, as we have seen, is used to help explain such differences in behaviour between individuals. The theories we have previously examined suggest that differences in the personality structures that are said to exist within each individual interact to produce differences in behaviour. Our behaviour is driven by inner motives such as instincts, unconscious drives, feelings of inferiority and so on, that all shape our personality. Based on what we have read so far, we might well claim that the person who enjoys parties and interacting with others does so because they have an outgoing, sociable personality. They are driven by an inner need to be with other people and are not so comfortable in their own company. There are alternative explanations for personality, and this chapter is about a series of theoretical approaches that adopt a radically different view. These theories reject the idea of our behaviour being directed by inner motives, suggesting instead that all our behaviour is learned. Individual differences in behaviour are the result of the different learning experiences that people have had and the situations that they find themselves in. To understand why someone behaves in a particular way, you need to examine carefully the situation they are in and to explore their past experiences in similar situations, rather than explain differences in behaviour as resulting from differences in personality. No underlying personality structure like Jung's psyche is thought necessary; rather, individuals have learnt to behave in certain ways because in the past they have been rewarded or they have avoided discomfort or punishment by doing so.

These approaches to understanding the individual are based on theories of how we learn. The learning theory explanation of the happy partygoer would suggest that such individuals have learnt to enjoy parties. Their first experience of a party as a child was wonderful. They were given presents, everything went well and they had a good time. This initial positive party experience has been followed by others, so that the individual looks forward to parties as pleasant experiences because of their learning history of parties. By contrast, the individual who dreads parties will have had some initial bad experiences of parties. Perhaps they were made to share their special toys with other children, or the other children broke their presents, or they did not get what they wanted or they were punished for being rude and so on. Learning theory would suggest that this negative experience can lead the individual to dread parties, especially if the negative experience is repeated. These examples are somewhat simplified, but we hope they have got the point across. The contention is that your attitudes to events like socialising are dictated not by

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your personality but by the past experiences of parties and similar events that you have had. As we mentioned earlier, these approaches are based on learning theory, and they vary in terms of how radical they are. We shall begin by looking briefly at the history of learning theory and outlining the major concepts that you need to understand.

Early learning theory developed primarily in the United States. The roots of the psychoanalytic schools of personality were firmly based in the European tradition of psychology, as we have seen, although they later became established in North America. We shall examine some of the major approaches to learning theory in the United States, from the radical approach of B. F. Skinner to the more moderate views of John Dollard and Neal Miller. Next, we will examine the work of Albert Bandura. While still maintaining a learning theory approach, Bandura introduces cognitive and emotional variables as factors influencing behaviour. Next, we will look at two learning theory concepts that have stimulated enormous amounts of research. These are Bandura's concept of self-efficacy and Rotter's locus of control. Finally, we will examine the work of Walter Mischel. Mischel has not developed a full-blown theory of personality, but his critique of existing approaches has been enormously influential in personality psychology, as you will see.

The focus for much of this chapter is the question of whether you behave as you do because of an inner personality that drives your behaviour, or whether it is purely that you have learnt to behave in certain ways in particular situations.

Introduction to learning theory

We take a slight detour here and look at the history of learning theory, as many of the crucial concepts that underpin more current developments emerged early in the development of psychology as a discipline. You need to understand these core concepts as they have heavily influenced many later developments.

Although learning theory developed mainly in the United States, a major influence was the work of a Russian physiologist, Ivan Pavlov. At the beginning of the last century, Pavlov was exploring the digestive system in humans and other animals. While he was undertaking research examining the salivary response of dogs, he observed what appeared to him to be ways in which dogs learnt to respond to objects and people. When it is given food, a dog will automatically salivate. This is a naturally occurring response. In the terminology of learning theory, the food is called the **unconditioned stimulus** and the response of salivating is called the **unconditioned response**. Pavlov observed that if a light went on or a bell rang (**unconditioned stimuli**) before the dog received food, after a few trials the dog would salivate when the light went on or the bell rang. The dog had learnt to associate what had been a neutral unconditioned stimulus (bell or light) with the food and salivated at the neutral stimulus even in the absence of food. This is the basis of what is known as **classical conditioning**, and the basic process is summarised in Figure 4.1. Pavlov (1906, 1927, 1928) carried out extensive research on the learning associated with classical conditioning.

Classical conditioning also accounts for some learning in humans. For example, suppose a parental goal was to bring up their young child to enjoy books. One scenario for achieving this, according to classical conditioning, would be to start with the child being cuddled on a parent's lap an experience that makes the child feel good. This is an unconditioned response (naturally occurring). Reading a book across a room to a young child will initially be a neutral stimulus. However, if the parent reads the book to the child while cuddling the child on their lap, after a few repeated sessions, being read to will produce pleasant feelings in the child even when they are not being cuddled by their parent. In this way, reading books has become a conditioned stimulus that produces pleasure in the child. Once reading the book has become a conditioned response, reading to the child across the room will induce the same pleasurable response in the child.

Pavlov demonstrated that the conditioned response could *generalise* to similar stimuli. In the dog example, it could be changes in brightness or colour or the light that would evoke the same response. Similarly with children, reading while on their parent's knee may generalise to being read to across a room and eventually to reading anywhere, even on their own, and finding it a pleasant experience. Pavlov showed that there are limits to generalisation. In the dog example, if the food is delivered to some sounds but not to others, the dog will learn to discriminate between the sounds and will only salivate to the 'food' sounds. Finally, Pavlov demonstrated that the conditioning process could be reversed. If the light is presented repeatedly with no food following, then the

1 Natural response (before conditioning occurs)

Food presented to dog **[Food = Unconditioned stimulus]**	Dog salivates **[Salivation = Unconditioned response]**
Light is switched on **[Light = Neutral stimulus]**	No response from the dog

2 Conditioning procedure for several trials

Light is switched on **and food** is presented to dog **Neutral stimulus + Unconditioned stimulus**	Dog **salivates** **Unconditioned response**

3 After the conditioning trials

Light alone is presented to dog **Conditioned stimulus**	Dog **salivates** **Conditioned response**

Figure 4.1 Summary of classical conditioning.

dog's salivary response gets weaker and weaker, till eventually what is termed **extinction** is achieved.

At this point, you may wonder what all of this has to do with personality, but Pavlov went on to show that classical conditioning could explain many of our emotional reactions. It could be that I am an anxious person because I have had experiences where I learnt to be anxious; it is not simply that I possess a neurotic personality. The crucial difference is that if you have learnt to be anxious, then you can unlearn; or, in learning theory terminology, the anxiety response can be extinguished as it is not a part of your personality. We will return to this shortly with a detailed example once we have understood how Pavlov's work came to be so influential within psychology.

John B. Watson, an American psychologist, read the early work of Pavlov and was very impressed by it. He began to apply some of Pavlov's observational techniques in his own research and replicated some of his work in the United States. As he became established within psychology, Watson began to call for a change in the direction of American psychology so that it could become a true science. He wanted to reject the methods of introspection and interpretation of patients' reminiscences that Freud and the other psychoanalysts had employed. He saw these methods as unscientific and argued instead for a psychology that considered only observable aspects of behaviour. In practice, this means that no assumptions or hypotheses can be made about what is going on inside someone's mind. Stimuli and their effect on behaviour are the subject matter of the behavioural approach, and rigorous scientific methods, mainly based in laboratories, are used to collect data. Watson published his views in 1914 in a book entitled *Behaviour*. In 1919, he published *Psychology from the Standpoint of a Behaviourist*. This book was influential in American psychology. It included summaries of Pavlov's work on classical conditioning, thereby introducing Pavlov's work to a wider audience. Watson is generally credited as being the founding figure of the School of Behaviourism, but his career as a psychologist ended with his withdrawal from academia in 1920 to enter business. Behaviourism and the popularising of Pavlov's work had set the scene for developments in personality theorising and research. From this perspective variables are manipulated, ideally in a controlled laboratory setting, and then the effects of these manipulations on the subject of the research are carefully observed.

The clinical perspective within classical conditioning

If you recall in Chapter 1, a distinction was made between the *clinical* and *individual differences* approaches to the study of personality. Although the behavioural approach is a radical departure from the psychoanalytic approaches in previous chapters, it still maintained a heavy focus on behaviour change, particularly within a clinical context. Put simply, if your hypothesis is that behaviour is learnt, then it is necessary to show that it can be unlearnt. The behavioural approaches, like the psychoanalytic approaches, focused on demonstrating that mental health problems (psychopathology) could be cured using behavioural interventions. A crucial difference between the psychoanalysts and the early learning theorists concerns how psychopathology arises. For the psychoanalysts, as we have seen, psychopathology arises because of inner causes such as unresolved developmental crises; or conflict between the structures within the personality such as the id, ego and superego; or problems in personality development of some other kind. The learning theorists rejected this as an explanation for the cause of mental problems, seeing it as unscientific to refer to what they saw as unobservable inner mental processes and/or structures to explain observed differences in behaviour. For these learning theorists, psychopathology was a learnt maladaptive response to a situation that may have generalised to other situations or similar stimuli, and as such, it could be unlearnt. Normal development was about learning adaptive responses in a variety of situations, while abnormal development resulted from acquiring maladaptive responses.

Pavlov (1927) began this line of research by inducing what he called **experimental neuroses** in one of his laboratory dogs. The dog was conditioned so that he would salivate to the shape of a circle. He then learnt to distinguish between circles and ellipses, only salivating to circles. However, when the distinctions between circles and ellipses became harder to distinguish, the dog became very distressed; his behaviour was disorganised, with a preponderance of neurotic symptoms. The dog barked when taken into the laboratory, shivered in his harness and tried to bite the restraining straps. Pavlov interpreted this as demonstrating that when the dog could no longer cope with what was being asked of him, he developed neurotic symptoms.

Watson and his colleague Rayner (1920) went on to demonstrate that human emotional responses could also be manipulated using classical conditioning. This is the famous classical conditioning experiment carried out on an 11-month-old infant called Albert. This has come to be known as the 'Little Albert' study and is still regarded as a classic in psychology. Albert initially did not display any fear of laboratory rats, but he did produce a startle and fear response to a loud noise made by banging a hammer on a metal bar. As Albert began to reach for a rat, the noise was made behind his head. After a few repetitions, he had been conditioned to fear the rat in the absence of any noise. This demonstrates how a child can learn an emotional response. This condtioned fear of white rats then generalised to other white, furry objects like a mask of Father Christmas and even Watson's own white hair. This work led to other psychologists exploring ways in which negative emotional reactions could be unlearned, and a great deal of work was carried out in this area from the 1920s until the 1980s. A

Stop and think   ? ! ?

Treating classically conditioned emotional responses

Systematic desensitisation

This can be used to treat phobias, for example, someone with a phobia of birds. The aim is to replace the old association between the feared stimulus (bird) and the feared response (panic symptoms) with a new association of relaxation. The client and therapist begin by ranking bird-related fears from most to the least feared. Holding a bird might be most feared; a picture of a bird might be least feared. Next, the client is taught how to relax. The response of relaxation is incompatible with the feared response. The client and therapist move through the list of fears, ensuring that

at each level the feared response becomes conditioned to the relaxation response, till the client can comfortably face their worst fear of birds. Many phobias and other anxieties have been successfully treated with systematic desensitisation.

Alcoholism

Aversion therapy has been used to treat people with alcohol addictions. Here the image of a drink could be paired with images of being sick or other negative images. This therapy has also been used to assist individuals stop smoking.

summary of some of this work on classical conditioning is given above in Stop and think: Treating classically conditioned emotional responses, for those of you with a clinical bent. The principles are still applied in some contexts; but our next theorist, Skinner, developed this work further.

The radical behaviourism of B. F. Skinner

Skinner had been influenced by the research of Pavlov and Watson, among others, and developed it further. (See the Profiles box on page 77.) He did not claim that unconscious processes or inner states did not exist, but he strongly felt that it was unscientific and unnecessary to rely on these unobservable processes to explain behaviour. He did not deny that we had ideas and thoughts, but he strongly believed that these inner thoughts did not cause our behaviour. Suppose you do not turn up to do a seminar presentation; you may say that you were so anxious at the thought of doing it that you could not make yourself attend. For you, the explanation is that your anxiety prevented you from attending. You are claiming anxiety as the inner cause of your not attending behaviour. You may even go as far as to claim a neurotic personality. Skinner would not agree with this interpretation. This inner state of anxiety is not the cause of your non-attendance. He would argue that you experienced certain aversive behaviours when preparing to attend; you may have felt nauseous, had palpitations, sweated and so on, perhaps at the sight of your presentation or while packing your bag. This resulted in you altering your preparatory behaviour. The change in your behaviour and the change in your feelings have the same cause. Saying that you are an anxious person does not explain the cause of the anxiety. For Skinner the cause of your anxiety was located somewhere in your developmental learning history where you have learned maladaptive responses. Skinner felt that much of the time, we do not know the real causes of our behaviour, in terms of what stimuli in the environment trigger specific behaviour; and he rejected completely the notion of behaviour being motivated by inner states. So if you say you feel happy, something in the environment has triggered a response that you have previously learnt to label as happiness; it is not some internally generated feeling for Skinner, but is stimulated by something in the environment.

Skinner (1948) did not accept the concept of personality, seeing it as unnecessary and unscientific to postulate unobservable, inner psychological, personality-generating structures. He accepted that our genetic inheritance would have some influence on how we interacted with the environment, but he played it down, claiming instead that the situational determinants were crucial in explaining the cause of behaviour. He made reference to Charles Darwin's principles of natural selection, suggesting that over many generations human beings have evolved particular characteristics to meet the demands of their particular environment, and he believed this had led to some genetically based individual differences. Perhaps being agile had a survival value for a particular group of people; then these individuals would have opportunities to express their agility in their environment, and these responses would be reinforced. The more agile you were, the greater the reinforcement and so on. This then would explain observed individual differences in behaviour. Heredity would only impose limits on behaviour. For Skinner, it is not the kind of person you are, but the learning history you have had and the current demands of your environment that dictate how you behave.

Skinner accepted the principles of classical conditioning but felt that it applied to a limited range of learning situations. He argued that what happened after particular ways of behaving was a crucially important aspect of learning that applied to most situations where we learn. He suggested that the classical conditioning paradigm, consisting of a stimulus followed by a response, is too

Stop and think   ? ! ?

Ethical reflection on the 'Little Albert' study

Do you consider it ethical to carry out experiments in which you make a young child fearful and upset to the point where the child cries? For most of us, this research is unethical, as modern codes of ethical conduct would make clear. The aim is to cause distress in a very young child. Ethical issues are complex, however, and you may want to reflect on the following:

- Watson carried out much of his conditioning research on his own children. Does this make any difference?
- Was his research worthwhile? Have we gained useful knowledge from his work?

simplistic for most learning situations. He demonstrated that what happens after the response – the *consequences* of the response – is what is crucial, as it affects the probability of the response being repeated. If you are praised for your seminar presentation, then you are more likely to volunteer to do a seminar presentation in future; if you are heavily criticised, then you are more likely to want to avoid future presentations.

Skinner refers to this learning process as **operant conditioning**. If the consequence of a piece of behaviour is to encourage the repetition of that behaviour, this is termed **positive reinforcement**. Consequences that discourage repetition of the behaviour are termed **negative reinforcement**. Although Skinner's primary interest was in human behaviour, most of his research was on animals in laboratory situations in the now famous Skinner box. This is illustrated in the photo.

There were slightly different versions of the box for different animals; but essentially, there is a lever of some sort that the animal in the course of exploring the box will press at some point. When this happens, the animal is rewarded with food. There is an electronic device attached to the lever to record the animal's rate of pressing. What Skinner demonstrated was that after the bar pressing had resulted in the animal's being reinforced with food, the rate at which the animal pressed the bar increased. The animal did not have to be reinforced every time for learning to occur, and Skinner studied the effects of different schedules of reinforcement. Much of the detail of this work is not particularly relevant in the context of personality theory, and we will cover only the relevant concepts.

Skinner demonstrated that **random or partial reinforcement schedules** produce behaviours that are very resistant to change, as an example will show. In one family, the teenage son was told that his weekend curfew was 11 p.m. However, every Friday night, Tim (the teenage son) would plead with his mother to be allowed to stay out later, and an argument would often ensue. The mother could not understand why Tim always had to argue and could not just accept that 11 p.m. was the curfew. She said he was stubborn and argumentative like his dad. In other words, it was down to his personality. When asked if she ever did allow Tim to stay out later than 11 p.m. on a Friday, she said that sometimes he just wore her down; or if she was in a good mood, she sometimes let him have another hour. In Skinnerian terms, Tim was on a random/partial reinforcement schedule. The rule was that his curfew was 11 p.m. However, Tim had learnt that it was always worth challenging this as sometimes his mother gave in and he was rewarded with a later curfew. So, for Skinner it was unnecessary and unscientific to refer to internal personality attributes to explain this behaviour, as learning theory provided an adequate explanation based on observable events. We are sure that if you reflect on some of the conflicts that you have experienced over family rules when you were growing up, you will find that operant conditioning provides a good explanation.

Another relevant Skinnerian concept is **shaping**. Skinner observed that when pigeons first entered a Skinner box, it might take them some time before they found the lever and pressed it. To speed up the process, he would deliver a food reward when they were facing in the direction of the lever, another reward when they came close to the lever and so on until the pigeon had actually achieved the desired response of pressing the lever. Shaping is applied to many aspects of behaviour where individuals are initially rewarded for behaviour that approximates the desired goal, and once that behaviour is established they are rewarded only for behaviour that comes closer to the goal and so on. Many of the current television programmes that help parents develop parenting skills areas are based on principles of operant conditioning where desired behaviours are gradually shaped. The children have a

Skinner box.
Source: Nina Leen/Time Life Pictures/Getty Images

Profiles

Major figures in learning theory Ivan Petrovich Pavlov, John Broadus Watson and Burrhus Frederic Skinner

Ivan Petrovich Pavlov

Pavlov was born in Ryazan, a small village in central Russia, in 1849. He was educated at a church school followed by a seminary and seemed destined to enter the priesthood. However, in 1870 he changed direction and studied chemistry and physiology followed by medicine at St Petersburg, becoming a skilful surgeon. After working for two years in Germany, he returned to St Petersburg and was made professor of physiology in 1890 at the Imperial Medical Academy. In 1904, he was awarded the Nobel Prize for his work on digestion. Pavlov was an independent, outspoken man; yet despite this, he managed to survive the Russian revolution and was allowed to continue his research although never becoming communist and openly criticising aspects of the regime. In 1922, at a time of famine in the Soviet Union, he asked Stalin for permission to take his laboratory overseas. This was denied as Stalin felt that the Soviet Union needed scientists like Pavlov. However Stalin did allowed Pavlov to visit America, first in 1923 and then in 1929. Although Pavlov was a physiologist, his research on learning and the methods associated with it have had, and continue to have, a major influence on the development of psychology.

John Broadus Watson

Watson was born in 1878, the first son of a poor family in Greenville, South Carolina. His father was a womaniser and abandoned his family when Watson was 13 years old. Watson found this difficult and rebelled against his mother and school. With the support of one of his teachers, he returned to study and eventually studied for a doctorate in psychology at the University of Chicago. In 1902, in the last year of his doctoral studies, he suffered an emotional breakdown. In his autobiography (Watson, 1936) he discusses how after his breakdown, he could accept the validity of much of Freud's work. This seems at odds with the individual who, as we have seen, founded the school of psychology known as **behaviourism**. In 1913 Watson lectured and published the seminal paper on behaviourism, *Psychology as the Behaviourists View It*. In 1915 while professor of psychology at Johns Hopkins University, he became president of the American Psychological Association and seemed set for a career as an eminent psychologist. However, in his private life, like his father, he had a great number of affairs with women and in 1920, he was forced to resign from Johns Hopkins University over a sexual scandal involving his research assistant. His academic career was over, although he continued to publish for a few years. He went into the advertising business and became a successful businessman. However, his relationships with his family were poor; after his retirement from business in 1945 and the death of his second wife, he lived as a recluse on a farm in Connecticut until his death in 1958.

Burrhus Frederic Skinner

Skinner was born in Susquehanna, a small town in Pennsylvania, in 1904. He had a middle-class upbringing in a warm, supportive family. His initial interest was in literature, and he wanted to become a writer. While working in a bookstore to support himself, he read books by Pavlov and Watson. Wanting to know more about psychology, at age 24 he enrolled at Harvard for a research degree. This was supposedly jointly supervised by the physiology and psychology departments, but in reality, Skinner was allowed a great deal of freedom to develop his own research and experiment with equipment, developing the Skinner box illustrated on page 76. In 1936 he married and left Harvard for a lecturing post in Minnesota. During the Second World War, he was funded by the America government to carry out a project to train pigeons to guide bombs. The pigeons would keep pecking at a target that kept the missile on course. A parallel secret project was on the development of radar, and when that was successful, Skinner's research was discontinued. However, he had discovered that pigeons learnt more quickly than rats, and from this point onwards he used only pigeons in his research. In 1945, Skinner became professor of psychology at the University of Indiana; the following year, the Society for the Experimental Analysis of Behaviour was set up. This development reflected the growing influence of behaviourism in the United States. In 1948, Skinner was given a chair at Harvard. In the same year, he wrote his only novel, *Walden Two*. This describes a community governed by the principles of learning theory. It describes a utopian society, which provided a wealth of experience for individuals to fulfil their potential. Although the book was fictional, a group of young people set up a community based on the book in Virginia (Kinkade, 1973). Skinner continued to work until his death from leukaemia in 1990. He focused on developing effective ways of teaching and learning, being an early proponent of programmed learning. In later life he became interested in philosophical issues, but he continued to be upset by the misrepresentation of his work by sections of psychology. However, the huge number of publications related to his work testify to his influence. Indeed the *Journal of Experimental Analysis of Behaviour*, set up in 1958, is still dedicated to research in the Skinnerian tradition.

star chart. They are rewarded for 'good' behaviour with a star, and earning stars 'buys' treats. Gradually, as the initial good behaviour becomes established, the parents up the ante for the child to earn stars. Skinner's contention is that eventually the children's good behaviour will become self-reinforcing as their relationships will be better, and this is rewarding in itself.

As we have seen, one of the big questions for personality theory is the nature of human motivation. For Skinner (1971, 1972, 1976) the issue was straightforward. He believed that human beings aim to produce pleasant events and to avoid painful events, if possible. All our emotional states can be understood by analysing the behavioural events in the environment that preceded them. He does accept that some behaviour is private, but he refuses to accept that internal private behaviour causes our emotions. You don't get anxious because you have an anxious personality, but because something in your environment stimulates the anxious behaviour.

Skinner devoted a lot of his writing to examining Freudian concepts and dismissed most of them as unscientific, constructs for which there was no observable evidence. He agreed with Freud that the early experiences of the child had long-lasting effects, which could even continue into adulthood. However, he contended that it was the early conditioning experiences of the child that shaped their later behaviour, not the influence of inner conflicts between hypothesised personality structures. For Skinner, demanding individuals are not governed by their id impulses, as Freud would claim; rather, they have in the past been rewarded for displaying demanding behaviour by having their demands met and have therefore learnt to behave in a demanding way. Skinner (1953) agreed that personality trait names do convey useful information describing the individual, like how friendly or enthusiastic they are; but they do not explain, in any empirical way, how they came to be friendly or enthusiastic. For him the friendly person has been reinforced more for being friendly than has the unfriendly person and so on.

Skinner also denies that human beings are purposeful. He claims that what we label 'intentions' are really responses to internal stimuli. For example, when you say that you want to go for a picnic in the park, for Skinner, you are not setting some mental future goal; rather, you are responding to some observations – perhaps internal and external – that in the past were associated with you having a picnic. It could be that the sun is shining; you observe that you have nothing else to do, you catch sight of a thermos flask in your kitchen, or you drive past a park and perhaps a previous memory of a picnic is triggered. For Skinner these or variations of them are the stimuli that you are responding to when you make a statement of intent to have a picnic.

Attempts to apply learning theory approaches to personality

All learning theorists are not as radical as Skinner is, and the theorists that we will explore now all made serious attempts to apply concepts derived from learning theory to personality. John Dollard and Neal Miller, two of the earliest of these theorists, both worked at Yale University. They are somewhat unique in that their aim was to try to integrate learning theory principles with Freud's psychoanalytic approach. Both Dollard and Miller had trained as Freudian analysts, Dollard at the Berlin Institute and Miller at the Vienna Institute. By background, Dollard was a social scientist, teaching anthropology, sociology and psychology and only specialising in psychology later in his career. Miller had trained as an academic psychologist before his analytic training. Both men were impressed with the work of the learning theorists while also influenced by Freud's theory. They sought to develop a synthesis of the two concepts to create a theory of personality.

Dollard and Miller collaborated on animal laboratory studies, mainly using rats, sharing Skinner's view that animal learning could be generalised to humans. However, unlike Skinner, they allowed for inner causation in behaviour. They believed that due to the higher mental processes of humans, our behaviour does not consist merely of responding to stimuli in our environment; instead, we can also respond to inner stimuli, and thoughts can be reinforcing for us. This is the first attempt to allow cognitive processing within a primarily learning theory model. The principles of learning demonstrated in lower species in the laboratory still applied to human learning, but because of their superior mental processes, humans were capable of more complexity. Thoughts and memories could cue behaviour within their model. This also allowed humans to plan ahead and anticipate events. There was even a role for the unconscious.

Dollard and Miller acknowledged the importance of unconscious processes in human behaviour, but their definition of the unconscious is different from Freud's; he saw the unconscious as comprising the sex and death instincts, which were inherited from birth. Dollard and Miller suggest that we are unaware of some processes because we acquired our drives and the cues before we learnt to talk and consequently they are not labelled. Examples might be some of our secondary drives for social contact, love and so on that we learnt as infants from our initial contacts with our parents. We have learnt to associate a particular smell, perhaps with the good feeling of being fed, but are unconscious of it. In future when we are exposed to the smell, it will affect our behaviour at an unconscious level. Other cues may be unconscious, as they are not labelled in our society. For example, in Japanese society to lose face (to be

embarrassed or humiliated, especially publicly) is an important concept, and there is a richer vocabulary in Japanese for labelling the experience than is the case in English, where the concept is not so important. Whether labels are readily available also affects how we perceive cues. The well-known example always cited here is that of the Inuit people (people who live on the arctic coasts, including Siberia, Alaska and Greenland) and their wealth of labels for different types of snow. Consequently, they make discriminations between types of snow that English speakers would find difficult or even impossible to do. This then accounts for material being in the unconscious because it is **unlabelled**.

Cues may also be unconscious because they have been repressed. Dollard and Miller suggest that the defence mechanism of repression is a learned response, like the rest of our behaviour. When we discussed repression previously, as a Freudian defence mechanism, we saw that it involves suppressing inconvenient or disagreeable feelings or thoughts. If we cannot remember something, it cannot upset us. For Dollard and Miller, repression is about a failure to label the upsetting thoughts or memories so that they are not easy to recall and making a decision not to think about it. When you recall unpleasant events, this reinforces the negative experience you originally had. Repression avoids this, and not labelling the feelings makes it harder for them to be recalled to conscious thought. Dollard and Miller accepted the importance of the effects of unconscious motivation and Freudian defence mechanism on behaviour, but they expressed defence mechanisms in learning theory terminology. The interested reader can find a very readable account in their book, *Personality and Psychotherapy*, published in 1950.

The stimulus–response model of personality of Dollard and Miller

As expected in a stimulus–response (S–R) theory, the emphasis was on how behaviour is learnt. From Hull, another early American learning theory researcher, Dollard and Miller borrowed the term **habit** to label the association between stimulus and response. Within their model, personality is composed largely of learned habits, and they go on to explain how these habits are acquired and maintained.

They agreed with Freud that the infant is born with some innate drives, which they termed **primary drives**, but disagreed with Freud about the nature of these drives. These innate primitive drives are physiological drives associated with ensuring survival for the individual. They include hunger, thirst, the need for sleep and the avoidance of pain. Reduction of these drives provides the most powerful reinforcement for the individual. Dollard and Miller (1950) claim that this reinforcement occurs automatically

and unconsciously, and to be maximally effective, it should immediately follow the response. Like many other personality theorists with a clinical background, Dollard and Miller focus mainly on psychopathology in the development of their theory and then extrapolate from this to normal development. For example, if an infant is left to become extremely hungry (primary drive), then it cries very loudly for attention (response). If the mother then feeds the infant, what the infant is said to have learnt is that making a fuss is rewarded. Such a child might then go on to make an excessive fuss every time they have a drive that requires satisfaction. In this terminology, making a fuss has become a habit. The baby whose primary drive of hunger was quickly met would not have this habit of overreacting and would develop normal levels of response, in this case distress. In most Western societies, primary drives are rarely directly observed, apart from in infant feeding, as societies have developed means of reducing them before they become pressing. The process for doing this involves the acquisition of what Dollard and Miller termed **secondary drives**. These secondary drives are learned mainly to help us cope with our primary drives. An example would be of setting regular mealtimes so that you are motivated to eat at particular times before the primary drive of hunger becomes overwhelming and therefore distressing. Associated with these primary and secondary drives are different types of reinforcement. For the innate primary drives, primary reinforcers are food, water, sleep and so on. Secondary drives similarly have **secondary reinforcers**. These secondary reinforcers are items or events that were originally neutral but have acquired a value as a reinforcer through being associated with primary drive reduction. A mother smiling at her child is a secondary reinforcer as it is associated with physical well-being. Money is also a secondary reinforcer as it is associated with being able to buy food, provide shelter and so on.

Dollard and Miller describe the learning of habits as being composed of four constituent parts: the initial drive, the cue to act, the response and reinforcement of the response. As discussed earlier, the drive stimulates the person to act. It does not guide them how to act but simply lets the person know that they want something. A drive might be hunger. Cues provide guidance about how to act or respond in S–R terminology. You notice a billboard advertising a new Chinese takeaway. This might be the cue for you to respond, by taking a detour past the takeaway, to get something to eat. If you then pick up a delicious meal that you enjoy hugely, you will no longer be hungry; your drive will have been satisfied. In this situation, the Chinese meal constitutes reinforcement. Reinforcement refers to the effect that a response has. As the meal was good, it reinforced your action of going to get it; and next time you are in a similar position, hungry when walking home, you may be tempted to repeat the experience. In S–R terms, a habit

has been formed. If, on the other hand, the meal was disgusting and the portions were tiny, the experience of visiting the takeaway would not have been reinforcing and you are unlikely to visit it again. In S–R terms, if the response does not satisfy the drive, it will undergo extinction. It does not mean that you will never again visit the takeaway, but you are less likely to do so. Remember that habits can be both positive and negative. They are simply associations between stimuli and responses.

Dollard and Miller (1941, 1950) were particularly interested in what happened when we became frustrated in our attempts to satisfy our drives. They described four types of conflict situations that we could face. The conflict is caused by our tendencies to wish to obtain (termed 'approach') certain goals or objects. They developed a simple diagrammatic system to illustrate these conflicts, as they felt that this helped them understand exactly what was going on in any situation (see Figure 4.2).

- **Approach–approach conflict** – This describes the situation where there are two equally desirable goals, but they are incompatible. This could be when you are asked to choose between two equally desirable objects to have as a gift. You really want both but can only have one. Both goals are positive but incompatible.
- **Avoidance–avoidance conflict** – This is the situation where you are faced with what you perceive as two equally undesirable alternatives. You have a spare hour, and your partner asks you to go jogging, which you hate; or you could offer to do the ironing as an excuse not to go jogging, but you equally hate ironing. Here for you both goals are undesirable and incompatible in terms of not having a wish or time to do both.
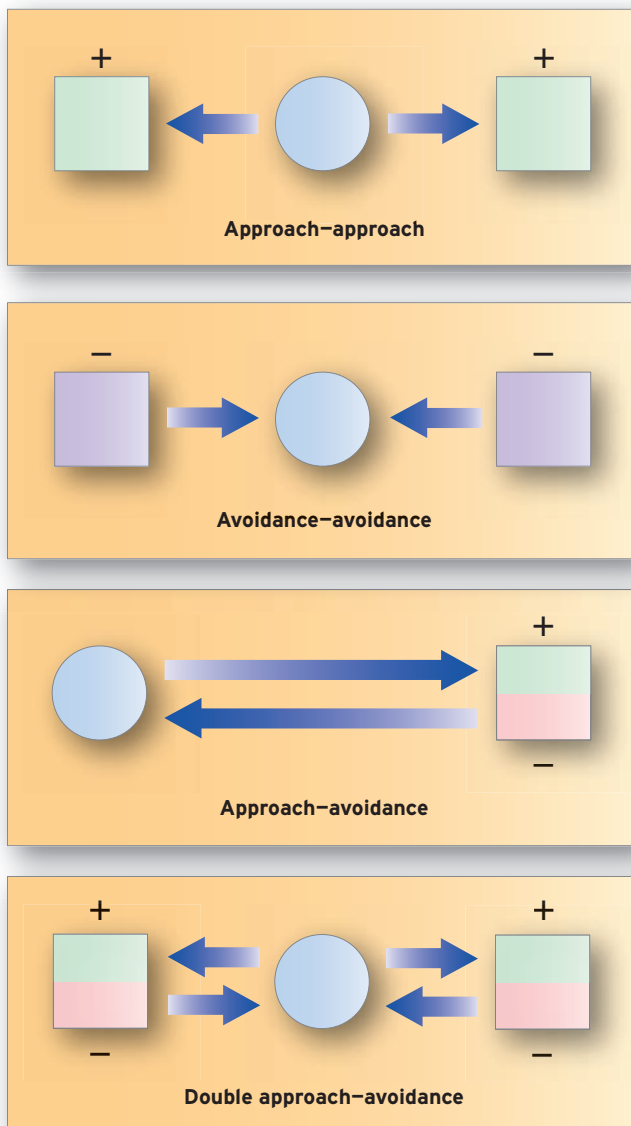

Figure 4.2 The Dollard and Miller system for analysing conflicts.

- **Approach–avoidance conflict** – Here there is one goal, but while an element of it is attractive, an aspect of it is equally unattractive. For example, you are offered a place in what seems an ideal house; however, one of your housemates would be someone you really do not like.
- **Double approach–avoidance conflict** – Here there may be multiple goals, some desirable and some undesirable. This is more like most situations, where there are a variety of factors, positives and negatives to take into consideration before being able to make a decision.

Although we have used human examples to illustrate the analysis of conflict situations, Dollard and Miller used laboratory animals rather than humans to demonstrate that this system was accurate at predicting behaviour.

For Dollard and Miller, therefore, behaviour is motivated by the need to reduce our primary or secondary drives, and we learn new behaviours in the process. It is a deterministic account of human development. It is more complex than the early learning theory models as it allows for the inner influence of human cognitive processes, and in this, it is a forerunner of the cognitive models of personality that we will examine in the next chapter.

One aspect of Dollard and Miller's model that is subject to criticism from behaviourists as not being radical enough is their approach to the treatment of mental disorder. For them, as with the other learning theorists, psychopathology consists of learned, unproductive, unhelpful habits or responses. In their integrative approach, they suggested that some of these habits might be unconscious because of the reasons we have discussed earlier and that this factor added to the complexity. The aim of treatment is to remove these ineffective habits and replace them with new, more effective habits. Unlike the earlier behaviourists, Dollard and Miller did not adopt a purely deconditioning approach to treatment; they maintain significant elements of psychotherapy, the 'talking cure', in their approach. There are two phases to their treatment: first is a **talking phase**, where the problem habits are identified, explored and labelled. In the second phase, the patient is encouraged to learn more adaptive habits and apply them in their life. They call this phase the **performance phase**. They departed from their Freudian psychoanalytic training in not attending to the problems that patients had experienced in the past. They felt that past emotional issues do not have to be relived in therapy for them to be resolved. The past is only helpful sometimes in helping patients understand the source of their problems. Their focus was on current problems in living and future strategies. This predates the current treatment practice in cognitive therapy that we will examine in the next chapter.

One other significant contribution made by Dollard and Miller (1941) was to recognise and outline the process of observational learning. They demonstrated how performance on a novel task can be improved by seeing someone else perform the task. This increases the speed of the learning process. They suggested that observational learning is important in development as children learn from observing adults and other children in situations that are novel to them. They stressed that observational learning could explain how both adaptive and maladaptive habits are learned.

We will now examine the contributions of theorists Albert Bandura and Michael Rotter, who have further developed this concept of social and observational learning in ways that can be usefully applied within personality theorising.

Albert Bandura and social learning theory

One of the major questions in personality theorising is whether inner or outer forces control our behaviour. As we have seen, the psychoanalysts would have us believe that inner forces determine who we are and how we behave. The learning theorists we have examined so far conceptualise human beings as being at the mercy of outer forces. The environment determines your opportunities for learning new behaviour, the interests you are likely to develop and your history of learning. Dollard and Miller allowed for some inner influence from the higher cognitive functioning possessed by humans but said that principles of reinforcement external to the individual are thought to mainly control human behaviour. Bandura challenges this view, as we shall see. (For background on Bandura, see the Profile box.)

Bandura's work is grounded in the learning theory tradition, but his focus is on human problems in living. He moved from animal studies to focusing on purely human behaviour, although he kept the methodology of undertaking mainly laboratory-based research. His laboratory techniques are much more sophisticated, emphasising observation in situations designed to simulate real-life experiences. He is interested in developing theory and applying it to behavioural problems in order to facilitate positive change in individuals and groups.

The model of the individual in his approach is of an active player responding both to inner stimuli and the external environment and moving back and forward in a dynamic system. Individuals are seen to be influential in determining their own motivation, development and behaviour. Bandura (1978, 1989) uses the term **reciprocal determinism** to label the processes that drive behaviour. He sees an individual as being influenced by personal factors, behaviour and environmental factors. All three factors interact with one another to influence how individuals

Profile

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Albert Bandura

Albert Bandura was born in 1925 in Mundare, a small Canadian town in the province of Alberta. He was an only son with five older sisters. His parents were farmers of Polish descent. Bandura went to a small school with a shortage of teachers. To combat this, the pupils formed groups to educate themselves in subjects where no teacher was available. This led to his interest in self-motivation and group effects in the process of learning and motivation. As a young man, he worked with a gang of labourers repairing the Alaskan highway. He met a diverse range of individuals, many escaping from the law and others on the fringes of society, and this is said to have sparked his interest in psychology and how it could address the real problems of living (Stokes, 1986). Bandura studied psychology at the University of British Colombia and the University of Iowa. Here he was introduced to researchers working on learning theory. He was appointed to a teaching post at Stanford University in 1954 and is still there. Bandura is one of the most distinguished living American psychologists. He received the American Psychological Association's award for Distinguished Scientific Contributions in 1980.

behave. The direction of these interactions is displayed in Figure 4.3.

Personal factors include the individual's cognitions, emotions and biological variables that contribute to their inner state. This is a major break from the traditional learning theory approaches we have examined previously. These personal factors can impact on both an individual's behaviour and on their environment. If you truly think you will fail at a task in a specific setting, Bandura (1995) has shown that this greatly increases the likelihood of failure as you approach the task differently. Your cognitions are affecting your behaviour. If you do not like opera, then you are unlikely to choose to go to an opera. Here your cognitions are influencing the environments you experience. Similarly, if you hate smoking, you may avoid bars that you know will be smoky. Here environmental factors and personal cognitions are impacting on your behaviour.

Bandura also suggests that **behavioural factors** can affect the individual's cognitions, feelings and emotions.

P = Person factors

B = Behavioural factors

E = Environmental factors

Figure 4.3 The interacting factors in reciprocal determinism.

Supposing you go skiing for the first time with some friends, and you prove to be good at it. You get your balance quickly, and the instructor is complimentary. You now have the cognition that 'This is something I can do'. Your feelings may also change from apprehension about whether you could do it, to feeling positive about skiing. The converse might also be true if your initial experience of skiing was awful. Your behaviour with regard to the skiing experience has influenced your cognitions and your feelings, and both are likely to influence whether you choose to ski in future. If you take up skiing, you may even become an expert and your body will develop neurological networks reflecting your expertise. In this way, Bandura (2001) demonstrated how our behaviour affects our cognitions, feelings, emotions, and even our neurobiology in some instances.

With regard to the environment, we have seen from the earlier examples how **environmental factors** like polluted environments may affect our behavioural choices. The hole in the ozone layer is another good example that has resulted in us having to take more care to avoid burning when it is sunny. We may have to spend time and money buying sunscreens, or we may avoid sunbathing (behavioural factors). In addition, we may also worry about sunburn and plan ways to avoid it (personal factors). We hope that these examples give you an idea of Bandura's model of **reciprocal causation** in action. You surely can think of other examples. Doing this makes you aware of the complexity of learned behaviour that, unlike the earlier models, Bandura's model can handle.

Unlike Skinner, Bandura (1995, 1998) believes that individuals do possess free will and are not at the mercy of their drives and reinforcement schedules in their learning environment. For Bandura, our cognitive processes allow us some control in selecting the situations we operate in and
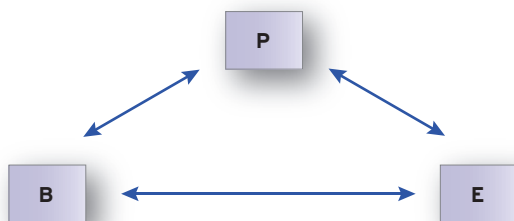
in creating or transforming situations. We may have to work, but we can choose what we do in our leisure; or we may work towards changing a work situation to make it more amenable to us. We can start businesses or interest groups or throw parties to provide the experiences and environments that we need. Bandura has labelled this **personal agency**: the belief that you can change things to make them better for yourself or others. Bandura (1999) has extended the concept to include **proxy agency**, where the individual enlists other people to help change some of the factors impacting on their life. They may ask a family member to look after their child so that they can get a job, or so that they can change their life in some other way. Bandura points out that there can be a downside to proxy agency in that people may in the process surrender their power to the other, who may not have their best interests at heart, and/or they may become subservient and give up control of their lives. He prefers the idea of **collective agency**, which is where a group of individuals come together believing that they can make a difference to their own and/or others' life circumstances. An example might be the recent emergence of farmers' markets. Here groups of like-minded people who want to be able to continue earning a living from farming by getting a fair price for their produce and who share a commitment to fresh local produce have joined together to sell their produce directly to the public for a fair price. There are many other examples of collective agency in community and national groups and charities.

Learning within Bandura's model

Within Bandura's model, personality development is about how we learn to become the person we are, and this then explains why we behave as we do. Bandura (1977) suggests that for learning to be effective, individuals have to be aware of the consequences of their behaviour. He demonstrated that people think about the consequences of their behaviour in learning situations. We think beyond the immediate situation and anticipate possible outcomes with an eye to the future. Being aware of the consequences of our behaviour also allows us **forethought**, in that we can anticipate what possible outcomes may follow our behaviour, and this knowledge can affect how we choose to behave and what we learn in the situation. Bandura (1995, 1999) sees awareness of the consequences of our behaviour and foresight as being human attributes as we possess language and symbolic thought which make it easier to record the consequences of our actions.

One of the most well-known aspects of Bandura's work is **observational learning**. He points out that more of our learning occurs by watching and following what other people do and imitating their behaviour than occurs by classical or operant conditioning. What happens is that an individual watches someone perform a novel behaviour, and when they are required to perform the same behaviour, they copy what they have previously seen. This is termed modelling by Bandura.

Bandura and Walters (1963) undertook a series of famous studies with a doll (Bobo); you may have covered these studies in your social psychology courses. To summarise, nursery school children were divided into two groups. One group, the experimental group, watched an adult playing aggressively with a plastic doll called 'Bobo'. The adult hit and kicked the doll, shouting things like 'Throw him in the air'. The second group of children, the control group, did not see the aggressive play. Later, both groups of children were allowed to play with the doll. Children in the experimental group displayed twice as much aggression towards the doll as did those in the control group.

From variations of this study, Bandura (1977) concluded that three factors are important in modelling. Firstly, the **characteristics of the model** influence how likely we are to imitate them. The more similar to ourselves the model is, the more likely we are to imitate them. Models undertaking simple behaviour are more likely to be copied than they are if the behaviour is complex. The type of behaviour being modelled also has an effect, with hostile and aggressive behaviour more likely to be modelled. Secondly, the **attributes of the observer** exert an influence. Less-confident individuals and those with low self-esteem or those who feel incompetent in the situation are more likely to imitate the model. Individuals with a learning history of being rewarded for conforming behaviour or who are highly dependent also imitate models more. Finally, Bandura showed that the **consequences of imitating a behaviour** are the most influential factor. If individuals believe that imitating a behaviour will bring positive results, then they are more likely to do so.

While we have talked about modelling using the term 'imitation', Bandura is insistent that modelling involves more than passive imitation. It is an active process of learning through observation, where the observer makes judgements and constructs symbolic representations of the behaviours observed. These symbolic representations may be verbal descriptions or visual images, and they are used to guide the individuals' future behaviour in similar situations. Bandura has studied the factors that may influence these processes in great detail; interested readers can refer to the further reading provided at the end of the chapter. Here we will restrict ourselves to a more aerial view of his theory as it relates to aspects of personality and its development. It is sufficient for us to be aware that modelling is not a passive process of observation, but an active process where the observer reviews what they have learnt and makes judgements about it and may decide to keep or

discard parts of the behaviour. A distinction is also made between what we have learned (knowledge acquired) and what we can do (performance). Performance is seen to involve trial and error as we gradually shape our behaviour into the desired format. We also may acquire knowledge that we do not use, like learning about ways to murder someone from watching television; fortunately, few of us ever put this knowledge to use.

While reinforcement is crucial for learning in classical and operant conditioning, Bandura demonstrates that it is not always necessary in observational learning. You notice vivid billboard adverts, or loud noises, because they command your attention. You may not think about the information at the time; but when faced with an array of soap powder at the supermarket, you recognise the one from the billboard. Bandura also demonstrates that we can and frequently do reinforce our own behaviour. This **self-reinforcement** is where we evaluate our own behaviour; we may stop doing something we are getting no pleasure from, or that we judge as harming us in some way, while continuing to do things that bring positive reinforcement. The other crucial element for learning Bandura identifies is an **incentive** so that we are motivated to learn. Here **forethought** plays an important part, as well as the more traditional cues for learning. Forethought can allow us to anticipate reinforcements and thus motivate our behaviour. He suggests that motivation is crucial with observational learning, as it requires practice for the skills to be perfected. Motivation and reinforcement are much more dynamic complex processes in this model.

Bandura (2002) is keen to encourage the application of his social learning theory to address global problems such as the AIDS pandemic, population growth and gender inequalities. He sees social modelling and observational learning as being core components of behavioural change. The modelling principles in his famous Bobo study were incorporated into serial dramas and soap operas by a well-known writer (Sabido, 1981, 2002). These dramas incorporate positive role models demonstrating beneficial lifestyles, negative role models displaying detrimental lifestyles and individuals who are making the transition from negative to more positive life roles. Bandura (2002) reports that these dramas provide individuals with positive role models. They also provide the inspiration for viewers to make positive changes in their own lives. To assist in the change process, supporting resources on linked websites or in post-programme information slots are made available to the viewers. These dramas are tailored for different cultures and delivered in Africa, Asia and Latin America (Bandura, 2000; Brown and Cody, 1991; Singhal and Rogers, 1989; Vaughan, Rogers and Swalehe, 1995). You see examples of post-programme information slots closer to home, with helpline details being provided after popular soap operas when particular social issues are included in the programme.

Personality development in social learning theory

It is this emphasis on observational learning that has led to the term 'social' being included in the theory, to stress that it is about how people learn from other individuals. In terms of how children develop their personalities, it is a learning process where parents, peers and others provide role models for children to learn from through observational learning mainly. The children learn to model their behaviour on successful models in their environment. This might be a sibling who manages to avoid trouble in one situation and a friend who gets on well in another and so on. Unfortunately, parents and others are not always consistent in their reinforcement, as we have seen, so the picture is more complicated than it might seem at first. Role models will be more or less effective, as will individual children's learning. Children will be exposed to different experiences, different environments and different cultures, and all of these influences help account for the observed diversity of human beings. The child is at the centre of these learning experiences and actively shaping the process. It is a truly dynamic, complex process.

Identifying goals to achieve is a crucial part of this process, and obtaining external feedback from relevant others on progress made towards achieving these goals plays an important part in maintaining motivation and ultimate success (Bandura, 1991). Bandura also demonstrated that goal achievement depends heavily on self-regulatory processes (Bandura, 1990, 1991, 1994, 1999, 2002). These **internal self-regulatory processes** include self-criticism; self-praise; valuation of own personal standards; re-evaluation of own personal standards if necessary; self-persuasion; evaluation of attainment and acceptance of challenges. Bandura (1990) describes these processes as being attempts at self-influence, and he has shown that the more of these factors involved in achieving a goal, the higher the levels of motivation to succeed. He identified self-efficacy as one of the most powerful of the self-regulatory processes, and we shall examine it next.

Self-efficacy as a self-regulatory process

Self-efficacy is defined as being your belief that if you perform some behaviour, it will get you a desired positive outcome (Bandura, 1989, 1994). It has become a really hot topic in psychology during the last 10 or so years and has stimulated a great deal of research, especially in health. Individuals have been shown to vary greatly in their levels of self-efficacy related to specific tasks. If we take smokers who wish to stop smoking as an example, smokers will vary greatly in whether they believe that they can achieve

their goal. It is a special kind of confidence in your ability to perform. In the smoking example, it might be that the smoker felt that not smoking at home and at work was achievable (high self-efficacy) but that not smoking when out with friends would be more difficult (low self-efficacy). Their overall judgement would depend on the relative amount of time they spent in each activity, and perhaps on their past experiences of similar success in a relevant area and so on. Bandura (1997) has shown that high self-efficacy significantly increases the likelihood of achieving success. Self-efficacy will influence whether a task will be attempted as well as the effort put into it and the persistence with which it is pursued in the face of difficulties or apparent lack of progress. For example, one recent study of the factors that affected the likelihood of relapse in a smoking cessation programme found that low levels of self-efficacy in individuals was a significant predictor (Segan, Borland and Greenwood, 2006). Another study looked at factors that predicted heavy drinking in anxiety-provoking social situations for a student population in the United States (Gilles, Turk and Fresco, 2006). The students most likely to drink heavily in these situations had low self-efficacy for avoiding heavy drinking in social situations and a correspondingly high belief that alcohol facilitated social interactions. Halkitis, Kutnick and Slater (2005) looked at adherence with HIV antiretroviral treatment in three hundred HIV-positive men. They found that poorer adherence was associated with low self-efficacy towards adherence, amongst other factors. Having confidence in your ability to succeed at something is consistently shown to be a significant factor in a wide range of scenarios (Bandura, 1997).

An example will help to clarify the application of self-efficacy. Let us compare two students, Dan and Stuart, who have to give assessed seminar presentations.

One student, Dan, is quite looking forward to his presentation. He knows that if he does well he will get a good mark, and he really wants to do well this year to get a good degree. He knows from experience that although he will be anxious initially, once he gets started he likes public speaking and will enjoy it. He is interested in the topic, and he is already quite well informed about it. He knows that he can organise his work effectively as he has received good marks previously when he has given himself sufficient time to undertake the preparatory work well. Not surprisingly then, his self-efficacy is high with regard to the seminar presentation; he feels confident about all the component parts that go into producing a good seminar presentation, and he has some positive experiences to reinforce this. The one proviso he has is about ensuring he has enough time to complete the task. As his motivation to succeed is high and his self-efficacy is high, he is more likely to devote the time to the work. The chances of Dan succeeding in delivering a good presentation are also correspondingly high.

Stuart dreads the event. He hates public speaking, and he has no confidence in his ability to master the constituent parts of the task. He knows that he has to do it, but his self-efficacy in relation to the task is low. As a result, thinking about it makes him anxious. He tries to put it out of his mind, and he avoids cues that remind him about it, like going to the library to prepare and so on. He indulges in ostrich-like behaviour and consequently, his chances of success are reduced. His initial low self-efficacy rating has resulted in him not being motivated to perform the task. Self-efficacy has been shown to be an important variable in predicting educational achievement. Lane and Lane (2001) showed that self-efficacy was a good predictor of British students' achievement on sports science courses. Hoy and Davis (2006) demonstrated that in school situations, teacher's ratings of their own self-efficacy in teaching are associated with the levels of achievement attained by their pupils.

Increasing self-efficacy ratings

The good news is that Bandura (1997) has demonstrated that self-efficacy can be modified by several different methods. Bandura (1999) has shown that the most straightforward way to improve self-efficacy is to get the person to 'perform the dreaded task'. If someone can be encouraged and supported to do something they fear, it has a dramatic effect on their self-efficacy. If the level of their performance is an issue, then further self-regulatory processes may be called into play so that the individual sees it as a gradual process. The first goal will be to perform, and subsequent goals may be about making improvements to their performance. **Vicarious experience** has also been shown to have an effect (Bandura, 1994). This is where the individual sees someone, whom they know shares the same fears as theirs, actually performing the task. Their cognitions become more positive, and they may say something like, 'If they can learn do it, then so can I'. This then changes their self-efficacy directly. The final method is termed **participant modelling**. In this method, the person with low self-efficacy shadows a person who is successfully completing the task. Even this imitative behaviour has been shown to lower anxiety.

Returning to the student seminar example discussed earlier, Bandura's model outlines three possible courses of action for the student low in self-efficacy. He would suggest that observing another anxious student perform successfully and discussing how they prepared for the seminar would be very helpful in raising self-efficacy. Taking this action allows the student to change their cognitions, to see that they can learn to deliver a good presentation as well. Another technique would be to pair up the anxious student with someone less anxious. The anxious student would

Children copy adults' behaviour in many different and subtle ways.
Source: David R. Frazier Photolibrary, Inc./Alamy Images

follow the confident student through the preparation and performance. Any possibility for feedback in the process would increase the chances of success by increasing the anxious student's confidence that they were progressing in the right direction. So obtaining feedback on the content is valuable, as is rehearsing the presentation with a friendly audience of family or friends. Once this rehearsal has been achieved, it again increases confidence. Any steps to improve confidence will improve the chances of a successful outcome.

Self-efficacy and the other self-regulatory processes help us to maintain our motivation and to be resilient even when faced with setbacks to our progress. Bandura (1990) quotes interesting examples of such resilience, including that displayed by the author James Joyce, whose book *Dubliners* was rejected by 22 publishers before becoming a success. Similarly, the artist Van Gogh died a pauper, having only ever sold one of his many paintings that are now worth a fortune. There are many more examples of amazing resilience shown by individuals in the face of rejection and apparent failure. Bandura sees the self-regulatory processes such as self-efficacy as being important in helping us to survive hard knocks and continue striving to achieve our goals. Benight and Bandura (2004) published an extensive review of research undertaken on the role of self-efficacy in helping individuals recover from traumatic experiences. They looked at natural disasters, war, terrorist attacks, loss of a spouse and other interpersonal traumas. They concluded that individuals who believe that they can overcome their difficulties (high in self-efficacy) are consistently shown in all the studies they examined to make a better recovery.

Measuring self-efficacy

There are psychometric tests that have developed to measure General Self-Efficacy; Sherer *et al.*'s (1982) General Self-Efficacy Scale, Schwarzer and Jerusalem's (1995) General Perceived Self-Efficacy Scale, and Chen, Gully and Eden's (2001) New General Self-Efficacy Scale. Sherer's *et al.*'s General Self-Efficacy Scale aims to measure self-efficacy via items that measure a general set of expectations that the respondent brings into new situations they face. An example item from this scale is 'If I can't do a job the first time, I keep trying until I can'. Schwarzer and Jerusalem's General Perceived Self-Efficacy Scale is designed to measure general Self-Efficacy by examining the participant's beliefs around their own capability to handle new and difficult tasks in a variety of different domains. An example item from this measure is 'I can handle whatever comes my way'. Chen *et al.*'s New General Self-Efficacy Scale is designed to measure the respondent's belief in their overall competence at being able to produce a necessary performance across a variety of possible 'achievement' situations. An example item from this scale is 'I will be able to achieve most of the goals that I have set for myself'.

However, Bandura is critical of attempts to measure self-efficacy with global scales. He points out that few people are confident about every aspect of their lives and the tasks they have to perform. Hence, self-efficacy is measured in relation to specific tasks. It demands confidence judgements to be made about the constituent skills or knowledge elements that make up a task. Researchers need to undertake this analysis systematically to ensure that all the relevant components are assessed. Bandura (2006) provides

detailed guidance on measuring self-efficacy. Consequently Bandura suggests that new and separate scales need to be developed for each self-efficacy domain. So for example, Bandura (2006) suggests:

- **Children's Self-Efficacy Scale**, which measures children's self-efficacy around a number of learning situations that students may experience at school, e.g. Self-Efficacy for Academic Achievement ('Learn reading, writing, and language skills'), Self-Efficacy for Self-Regulated Learning ('Organise my schoolwork') and Social Self-Efficacy ('Carry on conversations with others'),
- **Teacher Self-Efficacy Scale**, which measures teachers' self-efficacy around a number of teaching situations in which teachers may face challenges, e.g. Efficacy to Influence Decision Making ('Get the instructional materials and equipment I need'), Disciplinary Self-Efficacy ('Get children to follow classroom rules') and Efficacy to Create a Positive School Climate ('Make students enjoy coming to school'), and the
- **Parental Self-Efficacy**, which measure parents' self-efficacy around a number of situations in which parents may face challenges, e.g. Efficacy in Setting Limits, Monitoring Activities, and Influencing Peer Affiliations ('Keep track of what your children are doing when they are outside the home'), Efficacy to Exercise Control over High-Risk Behaviour ('Prevent your children from doing things you do not want them to do outside the home') and Resiliency of Self-Efficacy ('Keep up your spirits when you suffer hardships').

Julian Rotter and locus of control

We now want to introduce you to an important concept, **locus of control**, that has been and is still used extensively in research in personality and individual differences. This concept was first described by Julian Rotter (1966), another American learning theory researcher, who carried out most of his research at the University of Connecticut where he still works. We will begin by examining the theoretical background to the concept of locus of control before going on to explore how locus of control is measured. There is a wealth of research on locus of control, as it has been and continues to be as popular a research tool as are measures of self-efficacy. For this reason, we present only a brief taste of some of the research findings here, with an indication of the areas of research where it has been applied.

Like Bandura, Rotter felt that animal studies were too simplistic to address the complexity of human behaviour. Rotter was interested in how you might predict how individuals would respond in particular situations. Supposing someone makes a nasty remark about you in front of other people. You could respond angrily; you could mock them for doing it; you could get upset; you could go quiet; or you could walk away. There are a variety of possibilities. Rotter (1966) aimed to predict which option an individual might choose in a particular situation. He termed this the **behaviour potential**, that is, the likelihood of a specific behaviour occurring in a particular situation. The response that you choose will be the one with the strongest behaviour potential in that situation. However, the crucial question is, how is the strength of the behaviour potential determined? Rotter developed a formula to answer this question:

Behaviour potential = Reinforcement value × Expectancy

In this formula, **Expectancy** is our subjective estimate of the likely outcome of a course of behaviour. It is what we *expect* will happen. In learning theory terminology, it is our estimate of probability of our behaviour receiving a particular reinforcement in that situation. This is generally based

Stop and think

? ! ?

Your own General Self-Efficacy?

Take the three statements above from the three General Self-Efficacy Scales described in the text.

- If I can't do a job the first time, I keep trying until I can.
- I can handle whatever comes my way.
- I will be able to achieve most of the goals that I have set for myself.

Rate yourself on each statement using the scale 1 to 5, with 1 being 'disagree strongly', 2 being 'disagree', 3 being 'not certain', 4 being 'agree' and 5 being 'agree strongly'. Total up your scores and look at your individual score for each statement. Though this is not necessarily an accurate measurement of General Self-Efficacy, what do your total score and your answers to each statement tell you about your level of General Self-Efficacy? Remember each statement refers to a different definition of General Self-Efficacy.

on our experience of the same or similar situations. In the nasty insult example, it is your estimate of what you expect will happen if, for example, you mock the person. You may estimate that they will blush and feel ashamed of having made the nasty remark. Each option will have a different expectancy associated with it. This expectancy influences how you choose to behave in that situation. The final variable that contributes to predicting our behaviour is **Reinforcement value**. This refers to our preferences amongst the possible reinforcements available. You may be more inclined to help someone move some furniture if you know they will buy you a drink as a thank-you.

To summarise, Rotter suggests that to predict behaviour in a particular situation, we need to know what the options are and what the individual sees as being the possible outcomes for each option. The individual then assesses the likely outcome of each option (Expectancy). Next, they assess how much they value this outcome. The behaviour that is likely to occur (Behaviour potential) will be the behaviour that gets the highest rating. A summary of this decision-making process for our hypothetical example is shown in Table 4.1.

In novel situations, where by definition we have no experience to guide us, Rotter (1966) suggests that we rely on what he calls **generalised expectancies**. What he showed to be important about this concept is that individuals come to believe on the basis of their other learning experiences that either reinforcement is controlled by outside forces, or that their behaviour controls reinforcement (Rotter, 1966). The question he was interested in was whether it makes a difference if people believe that the reinforcement they receive is linked to how they perform, compared to individuals who believe that the reinforcement they receive is unrelated to their own behaviour. He labelled individuals who believe that reinforcement depends on external forces as **externals**. The external forces may include powerful others in the person's world, luck, God, fate, the State, and so on. What is crucial is that externals believe that

the locus of control is external to them. What they do does not influence the outcomes. Individuals who believe that their behaviour does make a difference to the outcome are labelled **internals**. Rotter (1966) demonstrated that locus of control is a relatively stable personality characteristic and developed a scale to assess it, the IE Scale. It is assessed via a 30-item forced-choice scale. Scores are on a continuum of I–E, and Rotter does not suggest a cut-off point to separate externals from internals. He has published normative scores for particular groups to allow comparisons to be made. Although other assessment tools to measure locus of control have been developed since Rotter's scale was published, his IE Scale is still the most widely used in research. Some sample items from the scale are shown in Figure 4.4.

The impact of locus of control on behaviour

Rotter (1982) demonstrated that people with an internal locus of control are more likely to feel in control of their lives, and to feel empowered to try to change things in their environment. Individuals with an external locus of control are more likely to feel powerless and helpless to change things and to be dependent on others. Research has shown that internality increases with age. Children become more internal as they develop into adulthood. Internality becomes stable in middle age and does not decrease in old age. Warm, supportive parents who encourage independence in their offspring have been shown to foster the development of internality in their children (de Mann, Leduc and Labrèche-Gauthier, 1992).

Locus of control scores tend to correlate with anxiety, and there tend be more externals than internals among people with mental health problems (Lefcourt, 1992). A major review of studies on depression and locus of control concluded that external scores correlate positively with higher levels of depression (Benassi, Sweeney and Dufour,

Table 4.1 Application of Rotter's equation for predicting behaviour to an insult.

Stimuli: Someone you know, Angela, makes a nasty remark about you in front of other people.

Behavioural option	Possible outcome	Rating of expectancy of outcome	Value of the outcome to the individual	Behaviour potential (probability that option will occur)
Angry reply	Argument	High	Low	Low
Mocking comment	Angela is embarrassed	High	High	High
Get upset	Angela feels remorse	Low	High	Low
Say nothing	Feel silly	High	Low	Low
Walk away	Feel silly	High	Low	Low

Respondents are asked to circle either of the two statements to indicate which statement they agree with.

Item 2
- Many of the unhappy things in people's lives are partly due to bad luck. (external locus of control)
- People's misfortunes result from the mistakes they make. (internal locus of control)

Item 9
- I have often found that what is going to happen will happen. (external locus of control)
- Trusting to fate has never turned out as well for me as making a decision to take a definite course of action. (internal locus of control)

Item 29
- What happens to me is my own doing. (internal locus of control)
- Sometimes I feel that I don't have enough control over the direction my life is taking. (external locus of control)

Figure 4.4 Sample items from Rotter's Locus of Control Scale.
Source: Rotter (1966).

1988). This link with externality and depression is still reported currently, and it also links with suicidal behaviour. Cvengros, Christensen and Lawton (2005) examined relationships between locus of control and levels of depression in patients suffering chronic kidney disease. They compared patient scores on health, locus of control, depression and progression of the illness over a 22-month period. Results demonstrated that patients who experienced an increase in their locus of control scores, demonstrating that they felt that they had more control over aspects of their condition, were less likely to be depressed. Liu, Tein, Zhao and Sandler (2005) surveyed 1,362 adolescents in five schools in rural China and examined the relationships between locus of control, suicidal behaviours, life stressors, depression and family characteristics. They reported that high scores on the external locus of control were a risk factor for suicidal ideation and suicide attempts, along with high life stress, increasing age and depression.

A similar pattern is found for physical health, with internals becoming better informed about their illness and coping better with physical illness. Externals are more likely to adopt a passive patient role, while internals are more likely to get involved in their treatment by adopting healthier behaviour (Powell, 1992). Internal locus of control had been shown to be associated with improved quality of life in patients undergoing treatment for HIV (Préau and the APROCO study group, 2005). The study assessed quality of life, locus of control and demographic and health factors in 309 HIV-infected patients at the start of their treatment programme and then monitored the sample over 44 months of treatment. After 44 months of treatment, internal locus of control was a determinant of higher quality of both physical and mental health. Similar results, demonstrating better quality of life for internals, have been reported for individuals suffering from chronic illnesses such as epilepsy (Amir, Roziner, Knoll and Neufield, 1999), diabetes (Aalto, Uutela and Aro, 1997), and migraines (Allen, Haririfar, Cohen and Henderson, 2000).

Locus of control has also been shown to impact on behaviour in many other situations. Lerner, Kertes and Zilber (2005) carried out a study examining risk and protective factors in psychological distress experienced by six thousand immigrants who had come to Israel from Russia. In a survey taken five years after the immigration, the researchers showed that psychological distress levels in the participants were linked with having an external locus of control as well as with other negative health and social factors. Locus of control is also applied in organisational research. For example, Allen, Weeks and Moffat (2005) looked at the role of locus of control among other variables in predicting whether employees acted on their intention to change jobs, or whether they simply talked about it. They found that individuals with an internal locus of control were more likely to translate their intention to change jobs into action and change their job.

Locus of control has also been applied in educational contexts. Martinez (1994) showed that internals tend to achieve greater academic success than externals do. It is suggested that when internals do well in examinations or essays, they tend to attribute their success to their own

abilities or to having worked hard. Externals, on the other hand, are more likely to put their success down to luck or an easy test. These differences in causal attribution will affect the confidence with which internals and externals approach academic assessment. Bender (1995) has suggested that the experience of continued failure despite trying at school leads to the development of an external locus of control in schoolchildren. They see that trying hard brings no reward, so they give up and may come to see failure as their destiny. Anderman and Midgley (1997) suggest that in the circumstances of repeated failure, having an external locus of control protects the individual's self-esteem. It is then not their fault that they fail. Internals, on the other hand, will be more confident and have higher expectations of themselves, both of which increase their probability of success. With very few exceptions, it appears that internals are more successful than externals in most situations. However, remember that the IE Scale is a continuum, and scores tend to cluster around the middle of the scale with few very extreme scores.

Walter Mischel

We debated whether to place Mischel's theory in Chapter 5 on cognitive theories; however, we decided to include it in this chapter because of its focus on the importance of situations and as it is frequently described as a social-cognitive approach to personality. Mischel was also heavily influenced by Bandura's work on self-efficacy and Rotter's approach to personality measurement. Mischel's theory could equally well sit in Chapter 6 on cognitive theories.

In 1968 Walter Mischel published *Personality and Assessment*, a book that created enormous controversy in personality psychology. As outlined in the Profile box (see page 91), Mischel's own research on the efficacy of global personality traits to predict performance led him to question the stability of personality traits across situations. This became known as the person–situation debate, or the 'personality paradox'. The question to be addressed was, do you behave as you do because of the situation you are in, or is it because of your personality? Mischel (1968) was concerned about the way psychologists interpreted personality test scores and then used them to make decisions about individuals. He pointed out that traits and other measures of personality are not good enough as predictive measures of how an individual will behave in different situations that they can be used to make important judgements about that individual, such as whether they are the right person for the job or if they are likely to violate the conditions of their parole. He pointed out that there was little evidence that individuals' behaviour is consistent in different situations.

Mischel (1973, 1979, 1983a, 1983b) makes it clear that despite what some critics said, he was not questioning the existence of personality traits but simply the way they were interpreted.

Mischel (1968) claimed that the correlations between personality trait self-report measures and behaviour was between 0.2 and 0.3, meaning that the trait was accounting for under 10 per cent of the variance in behaviour. He termed this correlation between traits measures and behaviour the **personality coefficient**. Other researchers questioned the size he claimed for the personality coefficient, demonstrating that a more realistic figure is 0.4 (Nisbett and Ross, 1980) – which is still low.

Personality researchers tried to combat Mischel's argument by comparing how well situations and traits predict behaviour (Endler and Hunt, 1966, 1968). The conclusion was that knowing about both the situation and the personality was better than knowing about either one on their own. However, this approach is impractical as there are so many possibilities, and researchers have to make decisions about which traits are likely to be relevant in particular situations. Mischel (2004) cites a study undertaken by Newcombe (1929) where 51 boys were measured on the personality characteristics of extraversion and introversion and then studied in 21 situations in a summer camp on a daily basis. Systematic recordings were made of the amount of time each boy talked at meals and of how much time he played alone or with others. Much to his dismay, Newcombe found that the average correlation of behaviour across situations based on these daily observations was 0.14. Mischel and others have continued to examine the consistency in behaviour that individuals display across situations and have concluded that there is substantial variation (Mischel, 1968, 1973; Mischel and Peake, 1982; Moskowitz, 1994; Ross and Nisbett, 1991).

Epstein (1979, 1980) argues that most personality researchers do not measure the relationships between personality traits and behaviour correctly. They take a personality score and then take one measure of behaviour, such as the likelihood of offering to donate blood, rated on a Likert Scale. This violates the principles of good measurement (Epstein, 1980). You need multiple measures to ensure reliability. For example, if we wanted to compare the different amounts of time that introverts and extraverts spent studying, a reliable measure would not be obtained by asking them how long they studied the previous evening. We would have to measure their study habits over some more extended time to get a true picture. This is what researchers have done to address this issue of the variability across situations and the associated measurement error. Behaviour measures from individuals are aggregated. Using this approach, researchers have demonstrated that there are

Profile

Walter Mischel

Walter Mischel was born in Vienna in 1930, in a house that was a short walk away from where Freud lived. His family moved to New York when he was 10 years old to escape from the Nazis. He studied psychology but qualified as a social worker. He suggested that the early link with Freud led him to begin his career as an advocate of Freud and psychoanalysis. However, he found that the psychoanalytic approach was of little help in his work with inner-city aggressive youngsters. This led him to undertake a PhD in psychology at Ohio State University. Here he worked with George Kelly (Chapter 5) and Julian Rotter (this chapter). After graduation he worked at Harvard and then Stanford Universities before moving to his present post at Columbia University in 1984. While at Harvard he worked on a project assessing performance for the Peace Corps and found that global trait measures of personality were not good predictors of performance. This led him to question existing approaches to personality, as we shall see. He received the Distinguished Scientist Award from the Clinical Division of the American Psychological Association in 1978.

stable individual differences between individuals on almost every dimension studied (Epstein, 1979, 1980; Mischel and Peake, 1982; Pervin, 1994). Epstein (1979) compared extraversion–introversion scores in students with the number of social contacts they made, where the contacts were recorded in daily diaries over a two-week period. They found a personality coefficient of 0.52, which is a major improvement on previous figures. What aggregation does is to minimise the effect of the situation so that the stable underlying characteristics of the individual become apparent.

Mischel (2004) points out that the person versus situation debate caused real divisions between personality psychologists looking to show consistent differences in individuals that are independent of the situations they are in, while social psychologists stressed the importance of the situation (Nisbett and Ross, 1980; Ross and Nisbett, 1991). Some personality psychologists did examine the person-situation interaction in more detail (e.g., Fleeson, 2001; Moskowitz, 1994; Vansteelandt and Van Mechelen, 1998); but as Mischel (2004) points out, these were rare exceptions.

For Mischel, the way forward was to incorporate the findings from developments in cognitive psychology about how the mind works. Mischel (1973) outlined a set of social-cognitive person variables, as opposed to trait descriptors, to describe individual differences. These variables described processes that were important in describing how individuals construed situations (encoding and appraisal), variables relating to the situation (people and the self) and the beliefs, behavioural expectancies, goals and processes of self-regulation. The aim was to discover the psychological processes in order to determine how individuals characteristically interpreted the world and how particular situations produced characteristic behaviour in individuals. It is an interactional approach that still aims to uncover individual personality differences; but in Mischel's approach, these differences are not encapsulated in situation-free personality trait terms like 'optimistic', 'considerate', 'sociable', but in situation-related descriptions of how individuals characteristically behave. Examining some of the research undertaken by Mischel and his colleagues will make it clearer.

Mischel and Peake (1982) examined what they called 'college conscientiousness' and friendliness in college students. To begin with, the students themselves specified the behaviours and situational contexts that they considered relevant to the traits being examined. This ensured that the behaviours and situations being measured were personally meaningful for the college students' definitions of 'college conscientiousness' and friendliness. While the researchers found behavioural variability across different situations, so that one person might be very friendly in one situation but low in another, they also found temporal stability in individual's behaviour *within* similar situations. Mischel suggested that some situations were perceived as being highly similar, forming what he describes as a **functional equivalence class of situations**. Individuals perceived themselves as having the personality characteristic of friendliness, for example, based on how consistently they behaved within a particular situation rather than on how they behaved across situations. In other words, you might well see yourself as being high in the characteristic of friendliness even though you do not act in a friendly way in every situation. From this study, Mischel and Peake (1982) concluded that there was consistency in how individuals behaved within a situation, and there appeared to be consistent

differences between types of situations that were worth exploring further.

While acknowledging that some of the differences between situations might be random noise, Mischel and his colleagues were convinced that there were also systematic differences in the perception of situations. They set out to look for some underlying structure that would help explain where these differences came from. An example may help your understanding here. Mischel (2004) compares two individuals who have the same score on a personality trait measure of aggressiveness. However, observation of their behaviour shows that they behave aggressively in very different situations and that these differences in their behaviour patterns are stable. One is aggressive to his junior colleagues at work but very friendly to his superiors, while the other is very friendly with colleagues but aggressive to his superiors. In this example, simply describing them as equally aggressive based on a trait measure does not give a real description of how they differ in terms of their personality characteristics.

Searching for invariance in an individual's behaviour across situations is a massive undertaking; but Mischel and his colleagues ran a replication of the Newcombe (1929) study, using a residential summer camp set up to treat children with behavioural problems, particularly aggression (Mischel, Shoda and Mendoza-Denton, 2002; Shoda, Mischel and Wright, 1993, 1994). The children were filmed over many weeks and for many hours. Mischel *et al.* reported that aggressive behaviour observed in one type of situation was not a good predictor of how that individual would behave in another type of situation. This in itself is not surprising, but Mischel *et al.* demonstrated that an individual's rank-order position on aggression relative to others in the group changes predictably and dramatically in different situations. The conclusion was that individuals might have a similar mean level of aggression but there are predictable differences in terms of which situations they behave aggressively in, and these provide much more insight into the kind of person they are. It might be that one child is aggressive to his peers when asked for anything, but another child with the same aggression trait score might characteristically only be aggressive to adults when they are chastising him. Mischel and his colleagues helpfully characterise these stable situation-behaviour relationships with the phrase, 'if . . . then . . . ', and describe them as providing **a behavioural signature of personality** (Shoda, Mischel and Wright, 1993, 1994). These behavioural signatures represent our characteristic reactions to situations. Other researchers have confirmed the existence of behavioural signatures of personality that provide distinctive characterisations of individuals (Andersen and Chen, 2002; Cervone and Shoda, 1999;

Morf and Rodewalt, 2001; Shoda and LeeTiernan, 2002). To summarise, Mischel and his colleagues have described the two types of behavioural consistencies. The first is behavioural consistency, called type 1 consistency, and it represents the trait ratings describing what individuals are generally like. Type 2 consistency represents the behavioural signatures of personality which show distinctive patterns of behaviour across similar situations, the if . . . then . . . propositions that encapsulate patterns of situational effects on personality.

Mischel argues the need for a dynamic personality system that will incorporate developments from cognitive science and genetics that are relevant to personality. He suggests that a dynamic personality system will go beyond mere descriptions of personality and give us more information about how the individual mind functions and personality is organised. He suggests that information about the individual's mental and emotional processes is an essential component of any model of personality. Mischel and Shoda (1995) outlined a model of a **cognitive-affective processing system (CAPS)** that fulfils some of these criteria. The aim was to demonstrate how the CAPS model can predict the type 1 and type 2 consistencies in personality that are described earlier. CAPS is composed of various mental representations, labelled **cognitive-affective units (CAUs)**. These CAUs include the individual's representations of self, others, situations, expectations, beliefs, long-term goals, values, emotional states, competencies, self-regulatory systems and memories of people and past events. Mischel and Shoda (1995) propose that the CAUs are organised in an interrelated system within the individual's stable networks of cognitions and emotions. A diagram showing how the CAPS model operates is shown in Figure 4.5. The yellow box contains developmental influences, and the green arrows indicate how these influences affect the system. All the other interactions, indicated by blue lines and arrows, are envisaged to happen concurrently.

Higgins (1996) has demonstrated that within one individual, some representations are more accessible than others.

This differential accessibility of CAUs, and the differences in the ways that they are interrelated within each individual, both contribute to the observed differences in personality between individuals. Different CAUs will be activated in different situations and at different times, but the way that change occurs does not vary, reflecting the stability of structures within the individual's CAPS (Mischel and Shoda, 1995; Shoda and Mischel, 1998). The CAPS model has been shown to generate type 1 and type 2 behavioural consistencies in computer simulations (Mischel and Shoda, 1998; Shoda, LeeTiernan and Mischel, 2002).
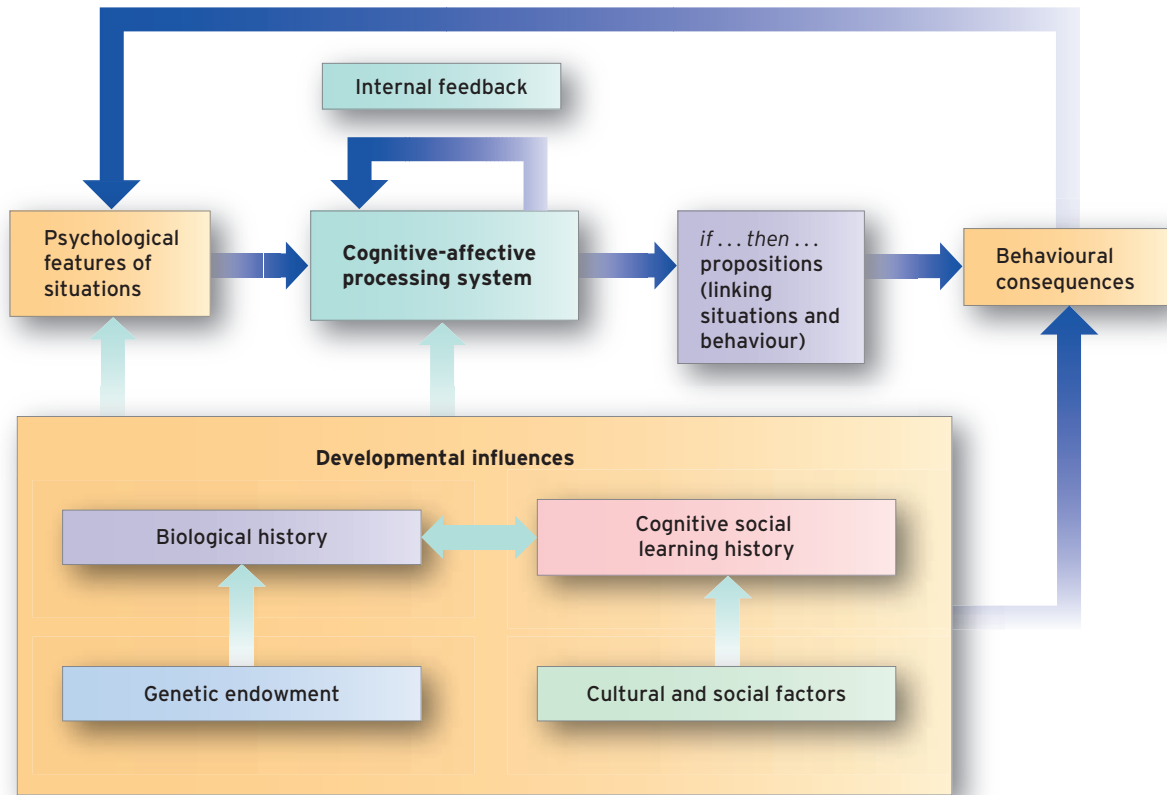
Figure 4.5 Mischel and Shoda's (1995) cognitive-affective processing system (CAPS).

The CAPS model produces descriptions of personality types based on how individuals organise their CAUs and how they process situational features. Downey, Feldman and Ayduk (2000) have provided an example describing the way that individuals who fear rejection respond to perceived uncaring behaviour in their partners, such as when their partner is paying attention to another person. Rejection-fearful individuals perceive, interpret and evaluate their partners' behaviour in terms of potential rejection. They ruminate about it, and these ruminations instigate the emotional responses of anger and fear as the individual becomes more fearful of being abandoned. They then respond to their partners by activating controlling, coercive behaviours and blaming their partner for this. This then creates a self-fulfilling prophecy as their partner in turn gets angry and may respond with threats of rejection. This response from the partner then reinforces the rejection-fearful individual's feeling that they are right to fear rejection – oblivious to the role that they themselves played in generating the rejection threat. From these observations, the personality signature of a rejection-fearing individual is apparent. When appraising interpersonal situations, they anxiously look for evidence

of potential rejection, any evidence of rejection threat is magnified and they overreact to it with anger and blame (Downey *et al.*, 2000).

This analysis demonstrates how personality signatures provide a more in-depth analysis of individual differences by incorporating situation-specific information or, in this instance, relation-specific information. Shoda *et al.* (2002) point out that in interpersonal situations, the 'situation' is another person, and they have demonstrated that the CAPS model deals equally well with this case. A great deal of work has already been accomplished on classifying different types of situations. Kelley *et al.* (2003) have published an *Atlas of Interpersonal Situations*. The aim was to go beyond a superficial description of situations and identify the psychologically important aspects of situations that play a functional role in generating behaviour. It is about the way that types of individuals characteristically perceive a situation, as demonstrated in the rejection-fearful example. More work is needed to develop a better understanding of how situation-behaviour signatures work and to link them with types of individuals.

What Mischel (2004) is arguing for is an approach to personality research that integrates research findings from

other areas of psychology; he is arguing that cognitions, memories, emotions, perceptual processes, genetic influences, regulatory systems and memories all play a part in generating individual differences. As we have seen, Mischel and his colleagues have already demonstrated, with their CAPS model, that there is a complex interaction between situations and enduring individual personality differences. There are still debates about the details, and the effects of many variables still have to be examined. Carver and Scheier (2003) have been examining the self-regulatory process by looking at the relationships between behavioural goals and the effects of feedback on goals. It is a complex undertaking.

The impact of Mischel

Mischel (2004) relates an amusing incident where one of his students reports to him that, according to a multiple-choice question in a state licensing exam for psychologists, he does not believe in personality. After reflection, Mischel suggests that if personality is defined purely by trait and state measures (Chapter 7), the answer is true. However, he now believes that personality research is moving on; a new era is emerging as researchers are returning to the original aim of personality theorising, which was to understand the systems that produce individual differences in behaviour. Mischel's work has been a major stimulus in these developments, bringing closer the possibility of an overarching explanatory theory of personality.

Mischel's original paper in 1968 has had a major effect on personality research. Swann and Seyle (2005) conclude that initially it led to a decline in research in personality for about 10 years and that social psychologists began to focus on the impact of situations and de-emphasise any personality effects in their research. However, Mischel's paper did lead to significant improvements in personality research. There have been many rebuttals of Mischel's views that involved researchers looking very critically at their methodologies, admitting that measures were often weak and the selection of which traits to study was sometimes inappropriate (Baumeister and Tice, 1988; Bem and Allen, 1974; Funder, 1999, 2001).

The concern about the validity of personality tests led Cronbach and Meehl (1955) to develop a clear procedure for establishing the construct validity of psychological tests. There is now widespread adherence to these procedures in personality test construction, resulting in improved validity of tests, and more care is taken in the interpretation of test scores (Swann and Seyle, 2005). Meyer *et al.* (2001) have demonstrated that personality tests now share the same high levels of validity as seen in medical tests. More attention has also been paid to the de-

sign of studies, with variables being more carefully selected and operationalised (Block 1977; Funder, 1999, 2001, 2002).

The grand explanatory theory of personality that Mischel envisages has not yet emerged, but considerable progress has been made in resolving the person-situation debate and in developing our understanding of how the two interact to produce both consistency and change in behaviour. Situations affect individuals; but individuals also act to change situations, often in complex ways (Magnusson, 2001). Swann and Seyle (2005), in their review of the effects of Mischel's attack on traditional approaches to personality, conclude that while the new integrative approach is likely to be fruitful, there are still instances where it is helpful to make distinctions between personal and situational determinants of behaviour.

Evaluation of learning theory approaches

We will now evaluate learning theory approaches using the eight criteria we identified in Chapter 1: description, explanation, empirical validity, testable concepts, comprehensiveness, parsimony, heuristic value and applied value.

Description

Both classical and operant conditioning provide useful descriptions of relatively simple behaviour. However Pavlov, Skinner, and Dollard and Miller all based their research on observations of pigeons, rats and dogs; and the more developed and unique qualities of human beings, such as the effects of language on our behaviour, are largely ignored. Skinner (1963) did address this criticism by agreeing that human behaviour was very complex and therefore difficult to study. However, he strongly felt that the basic principles governing the way we learn behaviour are the same for humans and other animals. It was simpler to study animals in the laboratory, and as the testing conditions could be controlled very rigorously with animals, it was better science, as far as Skinner was concerned. These views of Skinner's were contentious and generated as much debate as Freud's theory. Opponents argued that people are capable of higher cognitive processing, resulting in more complex learning *than observed in rats and pigeons*, and that the principles of classical and operant conditioning do not really address that complexity (Bailey and Bailey, 1993; Garcia, 1993).

Bandura and Rotter addressed this issue by abandoning animal studies and by allowing for the effects of inner

mental processes on human behaviour. In this way, they both provided a more comprehensive description of human behaviour although it was nothing like the complexity of Freud's work. By examining the importance of self-efficacy and locus of control, they have provided descriptions of valuable personality processes. Mischel's work follows in the tradition of Bandura and Rotter, but his ultimate aim is for an overarching, integrative theory of personality.

Explanation

The principles of learning theory do provide valid explanations of observed behaviour in specific situations. However, human beings have a rich mental life, which is ignored in the behavioural approaches. We are all capable of thinking and feeling, and these inner mental processes are ignored. As we have seen, many of the psychoanalytic theorists suggest that we are not always conscious of the reasons for our behaviour. Ruling out any idea of unconscious motivation as it cannot be directly observed seems absurd to such theorists. Dollard and Miller allowed for a concept of the unconscious, but they did not explain the role these processes play in determining behaviour.

These approaches can be criticised as being as deterministic as Freud's. The individual has no free will; our behaviour is determined by how others react to us. With the exception of the more recent work of Bandura, Rotter and Mischel, learning theory cannot explain intentional behaviour. We may have long-term goals that are unconnected with our prior learning history. An example will help illustrate this. Imagine that an individual grows up in a family where her mother and father were both doctors. The parents had a burning ambition for their daughter to follow in their footsteps, and she was certainly intelligent enough to achieve the necessary academic qualifications. According to the learning theorists, this example should result in the daughter becoming a doctor as she was brought up in an environment that fostered this, and her academic ability did not provide a bar. However, in this instance the daughter became a librarian. This is just one case history, but we are sure that if you ask around among your friends, you will come across other examples where children do not follow the paths that parents have wished for.

Sometimes we all do the unexpected in situations, and learning theory principles cannot easily explain this creativity in behaviour. Skinner (1972) rejected this criticism and said that it applies to classical conditioning with its emphasis purely on the stimulus and the response. In operant conditioning, we may behave in new and creative ways; but whether we repeat the behaviour is determined by its consequences. If we are rewarded in some way for the behaviour, then it should occur again, whereas if we are not rewarded, it should extinguish. I am sure you will agree that this is certainly not the case for much of human behaviour. Many would-be novelists continue to write, yet no one will publish their work; similarly, musicians continue to compose although no one plays their work, inventors continue to invent despite a lack of success and so on. We can still maintain goal-directed behaviour in the absence of positive consequences. Other personality theorists here might talk to inner drives that motivate us to behave in certain ways.

Bandura is the only learning theorist who addresses this issue with his concept of self-regulatory processes and self-reinforcement. These concepts allow for intentional behaviour and for behaviour to continue in the absence of any external reinforcement. The recognition of the role of cognitive processes and social factors in behaviour result in Bandura and Rotter's theories being very different from the earlier theories, although they still have the same emphasis on learning being a sufficient explanation for the development of personality. Mischel's position goes beyond that of Bandura and Rotter, although their approaches would be included as constituent components of an integrative theory as the effects of learning still need to be explained within such a theory. Rotter included the effects of memories of previous situations (prior learning) explicitly in the description of his theoretical approach.

For these learning theorists, any similarities in the way that people respond in different situations are down to environmental factors and prior learning. The environment that the person occupies is similar to a previous situation they had experienced; hence, they are responding in a similar fashion, rather than expressing a particular character trait that they possess. This rejection of the idea that people possess individual characteristics that influence how they behave in different situations flies in the face of all the empirical studies of stable measured individual differences in behaviour that are evidenced in chapters of this book. Again, Bandura, Rotter and Mischel are exceptions in that they have each identified individual personality characteristics. Both Bandura and Rotter see these differences resulting from learning experiences. At no point do Bandura and Rotter acknowledge a role for any possible genetic inheritance of personality traits – unlike Mischel, who is clear that biological factors have a part to play.

Empirical validity

One strength of the learning theorists is that their work is based on empirical data collected under controlled

laboratory conditions. However, researchers such as Black (1973) have suggested that these theorists sometimes go beyond the data they have collected and make assumptions. This is especially the case with regard to complex human behaviour. Much of the empirical data is about animal behaviour, but the assumption is that the principles uncovered with animals will apply to human beings. They have examined very simple learning situations in animals and then go on to assume that somehow, some combination of the same learning principles can be used to explain much more complex behaviour in human beings (Skinner, 1973). There is no empirical evidence for these claims. Bandura and Rotter do not use animal studies, but even in their human studies, they too are sometimes guilty of making assumptions that go beyond their data. The same cannot be said about Mischel, although the early critiques of his position claimed that he did. He successfully refuted these claims, as overviews by Snyder and Ickes (1985) and Swann and Seyle (2005) make clear.

Certainly the concepts of classical and operant conditioning can be, and have been, tested quite exhaustively. The argument is not that we cannot demonstrate the occurrence of both classical and operant conditioning; rather, that the concepts are not sufficient in themselves as an explanation of human behaviour. The animal explanation applies here also. The concepts may have been adequately tested in regard to rats, pigeons and dogs; but this is not the case for much of human behaviour, especially the more complex human behaviour.

Testable concepts

With regard to Bandura, Rotter and Mischel's work, the concepts they have developed have been extensively tested in a variety of psychological disciplines, and there is a great deal of supporting evidence. They have provided useful conceptualisations of elements of the process of acquiring personality. Mischel has gone further and caused personality psychologists to improve their methodologies and measurement tools.

Comprehensiveness

Skinner rejected the idea of personality and did not see himself as creating any theory; rather, he tackled specific problems in learning and behaviour. Taken at this level, he has provided a sound explanation of some aspects of learning and some specific behaviour, although most of the emphasis has been on lower animals, not humans. Within his research, Skinner focused on simple behaviours as they were easy to control, but this has resulted in his work

failing to address adequately the complexity of human behaviour. This was also true of Pavlov, who was purely interested in learning mechanisms.

Dollard and Miller, Bandura and Rotter were interested in personality and in developing relevant theories. Dollard and Miller's attempts were not very comprehensive. They did provide learning theory descriptions for how some Freudian defence mechanisms could be acquired. However, they fell short of developing a comprehensive theory of personality. Bandura's theory is probably the most comprehensive, but the lack of any discussion of genetic influences on personality development is a weakness in all the learning theory approaches. While Rotter has not yet produced a detailed comprehensive theory of personality, he has outlined the major components of such a theory.

Parsimony

From what we have discussed so far, it is apparent that learning theories can be criticised for being too parsimonious to adequately explain all of human behaviour and human motivation. The approaches are very parsimonious; they assume a small number of principles will apply to all situations, sometimes without empirical evidence. Towards the end of his life, Skinner did accept that additional concepts might be necessary to explain the more complex learning that occurs in humans. This criticism cannot be applied to Rotter's work as it aims to incorporate relevant explanatory and organisational concepts from all areas of psychology relevant to personality.

Heuristic value

As we have seen, both classical and operant conditioning have had an enormous impact on the discipline of psychology. Firstly, by emphasising the importance of empirical research evidence in theory development and hypothesis testing, the learning theorists played a major role in shaping psychology as an empirical science. They also demonstrated the importance of attending to situational and environmental variables that may affect behaviour in any situation and led to an early emphasis on laboratory studies where such variables can be more readily controlled. This early work has generated and continues to stimulate research within psychology, as evidenced by the continuation of the *Journal of Experimental Analysis of Behaviour*, which is devoted to learning theory approaches to research. Skinner himself has been a controversial figure, and his work has created great debates within psychology, psychiatry, education, philosophy, politics and the general public.

Bandura and Rotter, with their concepts of self-efficacy and locus of control in particular, have stimulated a huge amount of research. Mischel has also stimulated a great deal of controversy and research in both personality and social psychology, and it may well be that Rotter's work has created major changes in the discipline, some of which are yet to become apparent.

Applied value

In terms of applications of psychology, all the learning theorists have advocated the adoption of very pragmatic approaches to disturbed behaviour, and this has led to many new treatments for mental illness. By focusing on the detail of the ill person's behaviour, they have provided unique understanding of how such behaviour may have arisen in the individual's previous learning. The concept of disturbed behaviour as a maladaptive response that has previously been reinforced immediately opens up the possibility of that behaviour being extinguished and new responses being acquired. This concept also helps to demystify mental illness and consequently, it can be presented as a positive approach to mental illness.

The concepts of self-efficacy and locus of control have both been valuable additional factors to consider in behavioural change programmes. Programmes have been developed to improve self-efficacy in treatment programmes ranging from smoking cessation to safe sex campaigns. Similarly, locus of control has proved a useful tool in understanding treatment compliance issues in a variety of areas. Mischel too has always been interested in clinical aspects of psychology, and his work has led to better understanding of how personality attributes interact in situations to amplify disturbed behaviour, as in our example of the rejection-fearful individual.

This very idea of changing behaviour also leads to concerns about the potential to apply learning theory in unethical ways to mould both individual behaviour and that of societies. One example that we have already examined is the development of experimental neuroses in the Little Albert case study. As we have seen in his novel *Walden Two*, Skinner also acknowledged this concern. Behavioural approaches need to be applied ethically, as with all attempts to change behaviour – hence the importance of research ethics. Ethical issues in relation to personality research are discussed further in online Chapter 28 (www.pearsoned.co.uk/maltby).

Final comments

In this chapter you were introduced to the learning theory approach to personality, notably Pavlov and classical conditioning, Watson and behaviourism, Skinner and operant conditioning, the integrative personality theory of Dollard and Miller and the social cognitive approaches of Bandura. You were also introduced to the concept of self-efficacy, Rotter and the locus of control and Mischel and social learning theory. You should also be able to critically evaluate each of these theories. You should also be able to broadly evaluate learning approaches to personality.

Summary

- The early learning theories reject the idea of our behaviour being directed by inner motives. All our behaviour is learned. Individual differences in behaviour are the result of the different learning experiences that people have had and the situations that they have experienced rather than being due to differences in personality.

- Pavlov demonstrated how behaviour is learnt via classical conditioning. The process begins with an unconditioned stimulus (e.g., food), which is something that automatically produces the response you are interested in, called unconditioned response (salivating).

- Pavlov demonstrated that the acquisition of many of our emotional responses can be explained by classical conditioning.

- Watson, influenced by Pavlov's work, called for the adoption of rigorous scientific method in psychology and for theory building to be based on empirical evidence rather than the introspection, reflection and anecdotal case study methodologies of the psychoanalytic school.

- For the learning theorists, psychopathology is due to faulty learning. Normal development is about learning responses that are adaptive in the individual's environment. Abnormal development occurs when maladaptive responses are learned.

- Skinner was a radical behaviourist, and he did not allow for inner experiences in his account of learning. As inner experiences could not be observed, he therefore considered them unscientific. Only behaviour that could be observed was included in

his model of learning. For the same reason, he rejected the concept of personality as being produced by the interaction of inner forces. All behaviour was learnt. He demonstrated three key concepts important for learning: operant conditioning, positive reinforcement and negative reinforcement.

- Skinner's theory is deterministic. He rejects the concept of free will and the idea of intention or creativity in human behaviour. We merely respond to stimuli in our environment, and the consequences of our responding determine our learning.

- A strength of all the learning theory approaches is their emphasis on the application of rigorous methodologies to collect data and the underpinning of all theory with empirical data. Criticisms are that they fail to address the complexity of human behaviour. They are too heavily grounded in animal studies and have a very limited conceptual basis.

- Dollard and Miller made the first attempt to allow for cognitive processing in learning theory. They allow for unconscious influences on motivation but strictly define what they mean by the unconscious.

- Dollard and Miller outlined a stimulus-response (S-R) theory of learning. This includes the consideration of primary drives and secondary drives.

- Dollard and Miller demonstrated that observational learning played an important in role in learning. Role models are observed, and their performance is imitated.

- Bandura was the first learning theorist to allocate a significant role in learning to inner cognitive processes. Bandura uses the term reciprocal determinism to label the processes that drive behaviour. He sees an individual as being influenced by three interacting factors: personal factors, behaviour and environmental factors.

- Bandura further develops Dollard and Miller's concept of observational learning and has demonstrated its importance in the acquisition of aggressive behaviour in particular with the Bobo doll study. He demonstrated that the characteristics of the model, attributes of the observer and the consequences of imitating behaviour are all influential factors in the learning process.

- For Bandura, modelling behaviour was an active process of learning through observation where the observer makes judgements and constructs symbolic representations.

- Bandura demonstrated that we humans use self-reinforcement to control our behaviour via internal self-regulatory processes.

- Self-efficacy is identified as one of the most powerful of the self-regulatory processes.

- Rotter demonstrated that the likelihood of a behaviour occurring, termed behaviour potential, is predicted by our expectancy and reinforcement value.

- Rotter termed our generalised expectancies in new situations as locus of control.

- Mischel began his major work by criticising traditional trait and state approaches to measuring personality, claiming that not enough attention was paid to situational factors.

- Mischel and his colleagues carried out extensive research to examine the interactions between personality dispositions and situations. This work produced behavioural signatures of personality.

- Mischel and Shoda (1995) outlined and tested a model of the Cognitive-Affective Processing System (CAPS). Individual differences in this system result from differential accessibility of CAUs and differences in their interrelationships.

- Evaluative criteria are applied to all the theories covered in this chapter.

Connecting up

In this chapter we started to introduce some cognitive ideas that overlapped with learning theories. You will learn more on cognitive ideas of personality in the next chapter in this book.

In this chapter we emphasised how behaviours are learnt. Chapter 18 demonstrates a further consideration of learning theories when we outline the theory of learned optimism.

Critical thinking

Discussion questions

- A child is having a problem at school. When it comes to taking her turn in class, rather than raising her hand and waiting to speak, she shouts out answers to questions and interrupts other students when they are talking. What would a behaviourist recommend to solve this problem?

- A friend of yours is having a problem with their university work. They are unmotivated, fail to turn up to lectures, and leave doing their coursework to the last minute, often leading to them getting very low marks. What would a behaviourist recommend to solve this problem?

- How adequately do learning theorists explain human motivation?

- Skinner argues that humans do not have free will. Critically discuss.

- How necessary is external reinforcement for behaviour? Can you think of examples where either positive or negative reinforcement is ineffectual?

- Discuss the contribution that learning theories have made to the treatment of mental illness.

- 'Behavioural treatments need to be applied within an ethical framework'. Critically discuss.

- Discuss whether the concept of personality is necessary.

- Has the person–situation debate been adequately resolved?

- Earlier in this chapter, we asked you to make some ethical reflections on the Little Albert study. Nowadays carrying out such research on your own children would be likely to bring you into conflict with social services.

It could be construed as child abuse. While we have gained useful knowledge from this study, it would be very unlikely to get ethical approval currently. Would this be a loss to psychology? You may want to reflect on current ethical codes and consider whether we have become too stringent to the detriment of scientific knowledge (for more, see online Chapter 28). The situation may be straightforward when children are involved, but how about if it were adults old enough to freely consent?

- Are learning theories only about forms of reward and punishment?

Essay questions

- Critically examine the contribution made by one of the following psychologists to our understanding of personality:
  - Skinner
  - Bandura
  - Mischel.
- Compare the differences between classical and operant conditioning.
- Critically discuss how Skinner's and Watson's behaviourisms differ.
- 'Personality is no more than the sum of our learning experiences.' Discuss in reference to learning theories.
- How adequately does learning theory explain the development of personality?
- Discuss the concept of reward and punishment within learning theory.
- Critically compare two of the following three theorists:
  - Skinner
  - Bandura
  - Mischel.

Going further

Books

- Skinner, B. F. (1971). *Beyond freedom and dignity*. London: Prentice Hall. This is a controversial book that sparks debate. Skinner argues in this book that human beings do not have free will, so there is no real concept of choice in human behaviour.

- Nye, R. (1992). *The legacy of B. F. Skinner. Concepts and perspectives, controversies and misunderstandings*. Belmont, CA: Brooks/Cole. This book provides an excellent, fair evaluation of Skinner's work.
- Skinner, B. F. (1978). *Reflections on behaviourism and society*. Englewood Cliffs, NJ: Prentice Hall. In this book,

Skinner discusses the development of his ideas and their application in the real world.

- The classic source for Dollard and Miller is *Personality and psychotherapy: An analysis in terms of learning, thinking, and culture* (1950, McGraw-Hill).
- Bandura, A. (1996). *Self-efficacy: The exercise of control*. New York: Freeman. This is the most recent publication by Bandura specifically on self-efficacy.
- Rotter, J. B., Chance, J. and Phares, E. J. (eds) (1972). *Application of a social learning theory of personality*. New York: Holt, Rinehart & Winston. This is the book where Rotter, in collaboration with Chance and Phares, described a general theory of social learning.
- Lefcourt, H. M. (1981, 1983, 1984) has edited three volumes of the early work on locus of control. These volumes are titled *Research with the locus of control construct* (New York: Academic Press).

Journals

- Bandura, A. (1974). Behaviour theory and models of man. *American Psychologist*, *29*, 859–869. In this article, Bandura discusses his concept of personality. Published by the American Psychological Association and available online via PsycARTICLES.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review*, *84*, 191–215. This is the classic account of self-efficacy. Published by the American Psychological Association and available online via PsycARTICLES.
- Bandura, A. (2002). Swimming against the mainstream: The early years from chilly tributary to transformative mainstream. *Behaviour Research and Therapy*, *42*, 613–630. This is Bandura's account of the development of his ideas and their application in therapeutic contexts. *Behaviour Research and Therapy*, an international multidisciplinary journal, is published by Oxford Elsevier and is available online via Science Direct.
- If you are interested in examining applications of locus of control in health, *Journal of Health Psychology* (2005), Vol. 10, No. 5, is a special edition devoted to the measure, including a short version, and to its new applications in health.
- Mischel, W. (2004). Toward an integrative science of the person. *Annual Review of Psychology*, *55*, 1–22. This

article by Mischel gives an excellent overview of his current position and the progress that personality theory has made in addressing the person–situation controversy. *Annual Review of Psychology* is published by Annual Reviews of Palo Alto, California, and is available online via Business Source Premier.

- Overskeid, G. (2007). Looking for Skinner and finding Freud. *American Psychologist*, *62*, 590–595. Published by the American Psychological Association and available online via PsycARTICLES. In this article Overskeid suggests that though Sigmund Freud (whose theory we outline in Chapter 2) and B. F. Skinner are often seen as opposing theorists, they had many things in common, including basic assumptions shaped by positivism and determinism. The article discusses how many of Skinner's views may have been influenced by Freud.
- If you would like to look through some journals related to behavioural analysis, there are:
  - *Journal of Applied Behavior Analysis*. A journal primarily for the original publication of experimental research involving applications of the experimental analysis of behaviour to problems of social importance.
  - *Journal of the Experimental Analysis of Behavior.* A journal primarily for the original publication of experiments relevant to the behavior of individual organisms; also publish review articles and theoretical contributions.

Web links

- **The Cambridge Center for Behavioral Studies** is a resource for those interested in behaviour analysis and its role in education, health and the workplace. Also provides a comprehensive list of links to other behaviour analysis resources (**http://www.behavior.org/**).
- This site has a wealth of material on self-efficacy, including contributions from Bandura himself. It also has an extensive reference list of research on self-efficacy (**http://www.des.emory.edu/mfp/self-efficacy.html**).
- This is the link to Walter Mischel's website. Here you will get an idea of the work he is currently undertaking and a list of his most recent publications (**http://www.columbia.edu/cu/psychology/indiv_pages/mischel.html**).

Film and literature

- *Nineteen Eighty-Four* (1949, George Orwell, Penguin). Primarily concerned with the prospect of state control by behaviourist means. In *Nineteen Eighty-Four*, rats are used as a means of shaping Winston's behaviour to pro-

duce the required response. *Nineteen Eighty-Four* is also available online (**http://www.online-literature .com/orwell/1984/**) and was made into a film in 1984 (directed by Michael Radford).

- *Brave New World* (1932, Aldous Huxley, Penguin). Also a book primarily concerned with the prospect of state control by behaviourist means.
- Two films which depict the principles of learning, reward, and positive and negative reinforcement very strongly are *The Village* (2004, directed by M. Night Shyamalan) and *The Island* (2005, directed by Michael Bay). We have not gone into too much detail of these films so as not to give the plots away.
- *Token Economy: Behaviourism Applied* (Educational Resource Film; McGraw-Hill, 1972). Outlines B. F. Skinner's ideas on behaviourism and rewards. Concord Video and Film Council.
- *Classical and Operant Conditioning* (Educational Resource Film, 1996). The work of Ivan Pavlov and B. F. Skinner is outlined. The two types of conditioning are illustrated, including examples of historical laboratory work and Skinner boxes. Uniview WorldWide.
- *Discovering Psychology video* (Educational Resource Film, 1990). The theory of self-efficacy. WGBH/Annenberg-PCB-Project/CS.

Explore the website accompanying this text at www.pearsoned.co.uk/maltby for further resources to help you with your studies. These include multiple-choice questions, essay questions, weblinks and ideas for advanced reading.