6

Attitudes: Content, Structure and Functions

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KEY CONCEPTS

affective component of
    attitude
attitude
attitude–behaviour relation
attitude function
attitudinal ambivalence
behavioural component of
    attitude
cognitive component of
    attitude
explicit measures of attitude
implicit measures of
    attitude
mere exposure effect
MODE model
multicomponent model of
    attitude
one-dimensional
    perspective of attitudes
self-monitoring
self-perception theory
socially desirable
    responding
theory of planned
    behaviour
theory of reasoned action
two-dimensional
    perspective of attitudes

CHAPTER OUTLINE

The study of attitudes is at the core of social psychology. Attitudes refer to our evaluations of people, groups and other types of objects in our social world. Attitudes are an important area of study because they impact both the way we perceive the world and how we behave. In this chapter, we introduce the attitude concept. We consider how attitudes are formed and organized and discuss theories explaining why we hold attitudes. We also address how social psychologists measure attitudes, as well as examining how our attitudes help predict our behaviour.

Introduction

All of us like some things and dislike others. For instance, we both like the Welsh national rugby team and dislike liver. A social psychologist would say that we possess a positive *attitude* towards the Welsh rugby team and a negative *attitude* towards liver. Understanding differences in attitudes across people and uncovering the reasons why people like and dislike different things has long interested social psychologists. Indeed, almost 70 years ago, Gordon Allport (1935, p. 798) asserted that the attitude

attitude an overall evaluation of a stimulus object

concept is 'the most distinctive and indispensable concept in . . . social psychology'. That statement remains equally valid today; the study of attitudes remains at the forefront of social psychological research and theory.

In this chapter, we introduce a number of important issues regarding the attitude concept. First, we define the term 'attitude'. We will show that expressing an attitude involves making an evaluative judgement about an attitude object. Second, we devote attention to the content of attitudes. We will show that attitudes have affective, cognitive and behavioural components. Third, we consider the structure of attitudes. We will show that attitudes can be organized and structured in different ways. Fourth, we consider the psychological functions or needs that are served by attitudes. We will show that people hold attitudes for a number of reasons. Fifth, we introduce how attitudes are measured, concentrating on direct and indirect strategies that psychologists have developed to measure attitudes. We will show that attitudes can be measured in many different ways. Finally, we review research that has addressed a key question for attitude researchers: under what circumstances do attitudes predict behaviour? We will show that our attitudes and opinions are quite effective in predicting how we behave.

WHAT IS AN ATTITUDE?

How can we best define an attitude?
Can we have attitudes about anything?

In their influential book *The Psychology of Attitudes*, Eagly and Chaiken (1993, p. 1) define an attitude as 'a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor'. Inherent in this definition is the idea that reporting an attitude involves the expression of an *evaluative judgement* about a stimulus object. In other words, reporting an attitude involves making a decision concerning liking vs. disliking, approving vs. disapproving or favouring vs. disfavouring a particular issue, object or person.

An attitude, when conceptualized as an evaluative judgement, can vary in two important ways. First, attitudes can differ in *valence*, or direction. Some attitudes that a person possesses are positive (like our attitudes towards the Welsh rugby team), others are

negative (like our attitudes towards liver), and yet others are neutral (like our attitudes towards eating fried foods). Second, attitudes can differ in *strength*. For example, while one person might feel very strongly about the Euro, a second person might feel much less strongly about the same topic. You will learn more about different aspects of attitude strength later in this chapter.

Until now, we have used different examples when describing our own attitudes. This leads to an important question – can *anything* be the object of an attitude? Basically, any stimulus that can be evaluated along a dimension of favourability can be conceptualized as an attitude object. As noted by Eagly and Chaiken (1993), some attitude objects are abstract concepts (e.g., 'liberalism'), others are concrete (e.g., a computer). Furthermore, one's own self (e.g., self-esteem) and other individuals (e.g., a particular politician) can serve as attitude objects, as can social policy issues (e.g., capital punishment) and social groups (e.g., people from Canada).

PIONEER

Alice Eagly (b. 1938) completed her undergraduate degree at Radcliffe College before pursuing a PhD at the University of Michigan (1965). Her research on attitude change (with Shelly Chaiken) led to the development of the heuristic-systematic model of persuasion. Together, Eagly and Chaiken (1993) wrote *The Psychology of Attitudes*, arguably the most comprehensive volume written on the attitude concept. In addition to her research on the psychology of attitudes, Eagly has made enormous contributions to our understanding of the psychology of gender.

Plate 6.1 *How strong is your attitude towards the Euro?*

SUMMARY

Reporting an attitude involves the expression of an evaluative judgement about a stimulus object. Attitudes differ in strength and valence, and any stimulus that can be evaluated along a dimension of favourability can be conceptualized as an attitude object.

THE CONTENT OF ATTITUDES

Can attitudes be influenced by unconsciously learned emotional responses to an object?
How do beliefs shape attitudes?
When do people infer (or perceive) their attitudes from their behaviour?

So far, we have seen that attitudes can be thought of as an overall evaluation (e.g., like–dislike) of an attitude object. This definitional perspective has generated a number of conceptual models of the attitude concept. Historically, one of the most influential models of attitude has been the **multicomponent model** (see Eagly & Chaiken, 1993; Zanna & Rempel, 1988). According to this perspective (see Figure 6.1), attitudes are summary evaluations of an object that have *affective, cognitive* and *behavioural* components. A number of researchers have considered how these three components contribute to the formation and expression of attitudes.
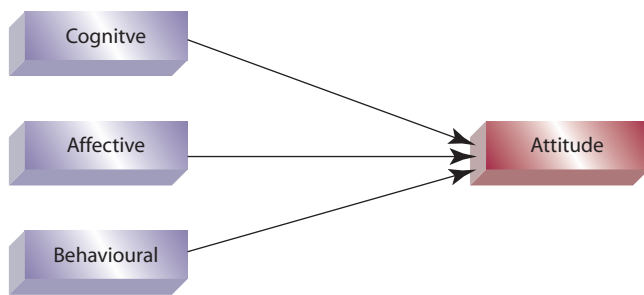
multicomponent model of attitude a model of attitude that conceptualizes attitudes as summary evaluations that have affective, cognitive and behavioural components

Figure 6.1 *The multicomponent model of attitude.*

The affective component of attitudes

affective component of attitude the feelings or emotions associated with an attitude object.

The *affective component of attitudes* refers to feelings or emotions associated with an attitude object. Affective responses influence attitudes in a number of ways. A primary way in which feelings affect attitudes is due to affective reactions that are aroused in the individual after exposure to the attitude object. For instance, many people indicate that spiders make them feel scared. These negative affective responses are likely to produce a negative attitude towards spiders.

Feelings can become associated with attitude objects in several ways. A number of researchers have used classical conditioning paradigms to assess how pairing affective information with an attitude object can produce a positive or negative attitude. For example, Krosnick, Betz, Jussim and Lynn (1992) conducted a study in which participants were presented with a series of pictures of an unfamiliar person. Importantly, each picture was preceded by an affect-arousing image that was presented at a subliminal level, that is, at very brief exposure below the threshold necessary for conscious encoding (see Chapter 4, this volume). For some participants, these images were negative (e.g., a bucket of snakes, a bloody shark), while for other participants these images were positive (e.g., a pair of kittens, a couple getting married). After seeing the pictures of the unfamiliar person, participants were asked to evaluate this individual. As can be seen in Figure 6.2, Krosnick et al. found that participants who were subliminally presented with the positive images liked the individual more compared with participants who were subliminally presented with the negative images. Not only were participants' attitudes affected by the subliminal presentations, so too were their perceptions of the target person's personality characteristics and physical attractiveness.

In addition to classical conditioning and subliminal priming, another way in which affect guides attitudes comes from research by Zajonc and colleagues (e.g., Kunst-Wilson & Zajonc, 1980; Murphy & Zajonc, 1993; Zajonc, 1968). These researchers argue that attitudes are formed on the basis of affective responses that precede conscious thought. To test this hypothesis, studies have examined how the *mere exposure* of stimuli can influence an attitude. In these

mere exposure effect increase in liking for an object as a result of being repeatedly exposed to it.
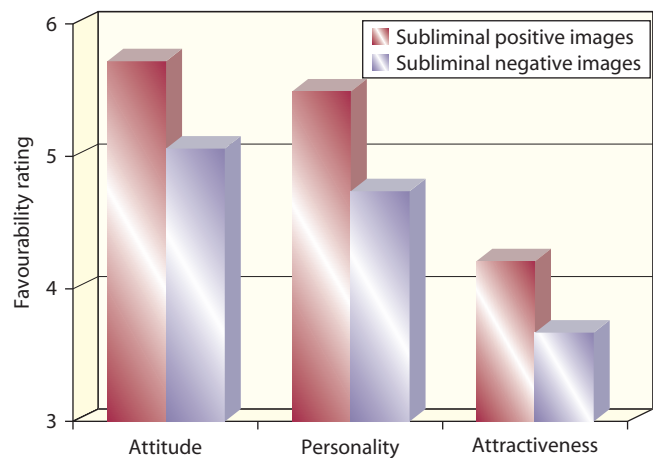

Figure 6.2 *The influence of subliminal priming on social perceptions (adapted from Krosnick et al., 1992).*

studies, different types of unfamiliar stimuli (e.g., various Chinese characters) are presented to participants a certain number of times. They are then shown again to participants along with other, novel stimuli (e.g., new characters), and participants' attitudes towards the familiar and unfamiliar characters are measured. A large number of studies have revealed that stimuli that have been presented many times are liked more than stimuli that have not been seen before. For instance, in one study by Zajonc (1968), participants were initially shown 12 different Chinese characters. During this exposure phase, each character was shown either 25 times, 10 times, 5 times, twice, once or not at all. Later, participants were asked to indicate how much they liked each character. The results of this study are presented in Figure 6.3. As can be seen, participants' attitudes towards the characters became more positive the more times the character had been seen at the exposure phase. The mere exposure phenomenon helps explain why we sometimes come to like classical music melodies that we hear repeatedly, even when we are unable to recall the artist who composed the music or any details of our prior experiences hearing it.
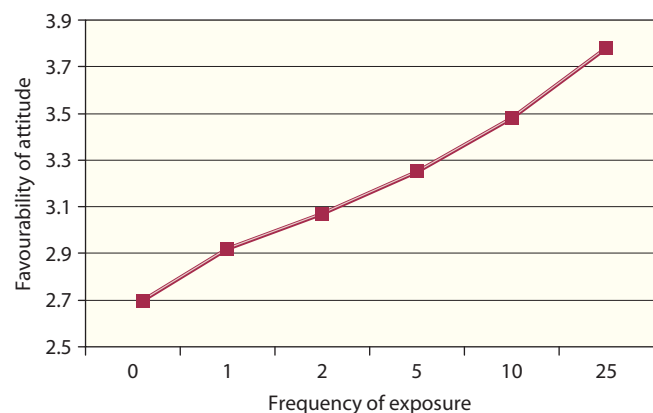

Figure 6.3 *The influence of repeated exposure on attitudes (adapted from Zajonc, 1968).*

PIONEER

Born in Poland, **Robert Zajonc** (b. 1923) completed his PhD at the University of Michigan (1955). He remained at the University of Michigan until 1994. Zajonc's research covered many areas relevant to the psychology of attitudes. His work on the mere exposure effect led to the development of an influential program of study exploring how affective processes influence attitudes and actions. This research led Zajonc to consider the role of unconscious processes in determining preferences and behaviour.
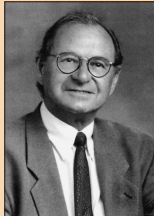
The cognitive component of attitudes

cognitive component of attitude
thoughts, beliefs and attributes associated with an attitude object

The *cognitive component of attitudes* refers to beliefs, thoughts and attributes we associate with a particular object. In many cases, a person's attitude might be based primarily upon a consideration of the positive and negative attributes about the attitude object. For example, when one of us recently bought a new car, he devoted considerable attention to factors such as different vehicles' safety records, petrol mileage, resale value and repair costs. In this example, attitudes towards the different cars were formed via a conscious consideration of the positive and negative characteristics of each car. Cognitions have an impact on many types of attitudes.

Plate 6.2 *Attitudes toward different cars might be based on the positive and negative characteristics of each car.*

Within the study of intergroup attitudes (see Chapters 3 and 14, this volume), stereotypes are usually considered as beliefs about the attributes possessed by a particular social group. Further, many studies have revealed that possessing negative stereotypes about a group of people is associated with having a prejudicial attitude towards the group (e.g., Esses, Haddock & Zanna, 1993; Kawakami, Dion & Dovidio, 1998).

Cognitions, in the form of beliefs, are a key part of one approach to attitudes, which argues that attitudes are derived from more elementary cognitions about the attitude object. Specifically, Fishbein and Ajzen's (1975) expectancy–value approach describes an attitude towards an object as the sum of 'expectancy × value' products. Expectancies are beliefs or subjective probabilities that the object possesses a certain attribute; these beliefs may range from 0 to 1 in strength. Values, or evaluations, are ratings of the attributes, normally from −3 to +3. An attitude object will be evaluated positively if it is seen as leading to, or associated with, positive things and avoiding negative things. Only salient beliefs count towards the overall attitudes; these are beliefs that a person considers most relevant. We can illustrate the model by computing a person's attitude towards the game of golf. This person might think that golf is (1) a valuable form of exercise, (2) a good way to see friends and (3) frustrating. Each of these beliefs will have both an expectancy and a value. For example, exercise might have a high expectancy (.9) and positive evaluation (+3); seeing friends might be perceived as having a lower expected outcome (.7) that is somewhat positive (+2); while frustration is (thankfully!) somewhat infrequent (.3) but very negative (−3). The individual's overall attitude towards golf is computed by summing the belief–evaluation products (e.g., $2.7 + 1.4 - .9 = 3.2$).

The behavioural component of attitudes

The *behavioural component of attitudes* refers to past behaviours with respect to an attitude object. For instance, people might infer that they have a negative attitude towards nuclear power plants if they recall having previously signed a petition against having a nuclear power plant built

behavioural component of attitude past behaviours associated with an attitude object

self-perception theory a theory which assumes that individuals often do not know their own attitudes and, like outside observers, have to engage in attributional reasoning to infer their attitudes from their own behaviour

near their neighbourhood. The idea that people might infer their attitudes on the basis of their previous actions was developed by Bem. According to Bem's (1972) *self-perception theory*, individuals do not always have access to their opinions about different objects (see also Nisbett & Wilson, 1977). Bem argued that this is especially likely when the person's attitude is particularly weak or ambiguous. Many studies have shown results consistent with this reasoning. For example, Chaiken and Baldwin (1981) asked participants to complete a questionnaire containing items that were framed in a way to remind people of either their pro-environment behaviours (e.g., picking up the garbage of others) or their

anti-environment behaviours (e.g., leaving on lights in unattended rooms). After completing this task, participants indicated their attitude towards the environment. The results were consistent with self-perception theory. When participants had been reminded of their positive behaviours, they reported more favourable attitudes than participants who had been reminded of their negative behaviours. Furthermore, this effect was obtained only among those individuals who, prior to the experiment, had weak attitudes about environmental matters.

Behaviours may also influence strongly held attitudes, but in a different way. Festinger (1954) proposed that people can change their attitudes in order to be consistent with behaviours that they have performed. For example, people might convince themselves that they like several boring tasks if they have just been given a small payment to tell others that the tasks are great (Festinger & Carlsmith, 1959). Many experiments support Festinger's hypothesis that this effect occurs because the counterattitudinal behaviour induces an aversive arousal, which participants are motivated to reduce (Zanna & Cooper, 1974; Zanna, Higgins & Taves, 1976). Additional evidence suggests that this effect is particularly likely to occur when the behaviour is threatening to the self-concept (Holland, Meertens & van Vugt, 2002; see Chapter 7, this volume).

Behaviours also influence attitudes in a more direct way. Research has demonstrated that performing a behaviour that has evaluative implications or connotations influences the favourability of attitudes. For example, Briñol and Petty (2003) conducted a study in which participants believed they were participating in a consumer research study on the quality of headphones. Participants were informed that a headphone manufacturer was interested in determining how headphones performed when listeners were engaged in various movements such as dancing and jogging. Briñol and Petty (2003) had participants move their heads in *either* an up-and-down motion (nodding the head) or a side-to-side motion (shaking the head) as they listened to an editorial played over the headphones. When the arguments contained in the editorial were strong, it was expected that moving one's head in an up-and-down motion would lead participants to be more positive about the position being advocated in the message, because nodding is a motion that is commonly associated with agreement. The results revealed that participants were more likely to agree with the content of a highly persuasive appeal when they moved their heads up and down as compared to side to side (see also Wells & Petty, 1980).

The enactment of other types of behaviour also affects the favourability of individuals' attitudes. For example, Cacioppo, Priester and Berntson (1993) asked participants to engage in either arm flexion (moving one's hand towards the body – a behaviour associated with approach) or arm extension (moving one's hand away from the body – a behaviour associated with avoidance) while viewing a variety of unfamiliar Chinese characters. Later in the experiment, when asked to rate the characters, Cacioppo et al. (1993) found that characters viewed during arm flexion were rated more positively than those viewed during arm extension. Taken together, in both the Briñol and Petty (2003) and Cacioppo et al. (1993) studies, a direct physical behaviour initiated by individuals influenced the favourability of their attitude.

SUMMARY

Attitudes have affective, cognitive and behavioural components. The affective component refers to feelings or emotions associated with an attitude object. The cognitive component refers to beliefs, thoughts and attributes associated with an attitude object. The behavioural component refers to past behaviours with respect to an attitude object.

THE STRUCTURE OF ATTITUDES

What are the two basic perspectives on attitude structure?
What is the evidence supporting a one-dimensional attitude structure?
What are some potential effects of attitudinal ambivalence?

In addition to considering the content of attitudes, another important issue concerns how positive and negative evaluations are organized within and among the affective, cognitive and behavioural components of attitudes. It is typically assumed that the existence of positive feelings, beliefs and behaviours inhibits the occurrence of negative feelings, beliefs and behaviours. For example, this framework suggests that an individual with positive feelings, beliefs and behaviours about the Welsh rugby team is unlikely to have negative feelings, beliefs and behaviours about this team. In other words, according to this *one-dimensional perspective of attitudes*, the positive and negative elements are stored in memory at opposite ends of a single dimension, and people tend to experience either end of the dimension or a location in between.

This one-dimensional view is opposed by a *two-dimensional perspective of attitudes*, which suggests that positive and negative elements are stored along two separate dimensions (Cacioppo, Gardner & Berntson, 1997). One dimension reflects whether the attitude has few or many positive elements, and the other dimension reflects whether the attitude has few or many negative elements. This view proposes that people can possess any combination of positivity or negativity in their attitudes. Consistent with the one-dimensional view, attitudes may consist of few positive and many negative elements, few negative and many positive, or few positive and few negative (i.e., a neutral position). Inconsistent with the one-dimensional view, attitudes might occasionally subsume many positive *and* many negative elements, leading to

one-dimensional perspective of attitudes a perspective that perceives positive and negative elements as stored along a single dimension

two-dimensional perspective of attitudes a perspective that perceives positive and negative elements as stored along separate dimensions
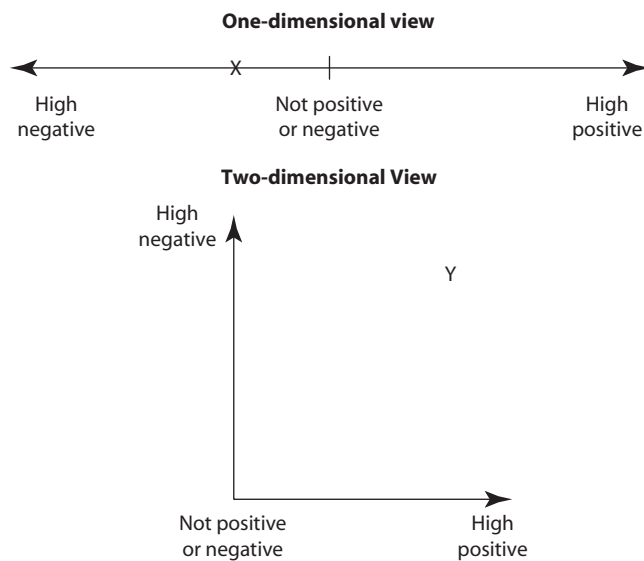
One-dimensional view

High
negative

Not positive
or negative

High
positive

Two-dimensional View

High
negative

Y

Not positive
or negative

High
positive

Figure 6.4 *The one-dimensional and two-dimensional perspectives of attitude.*

| attitudinal ambivalence an instance where an individual both likes and dislikes an attitude object |
| --- |

attitudinal ambivalence. The two-dimensional perspective explicitly allows for this ambivalence to occur, whereas the one-dimensional perspective does not.

The one-dimensional and two-dimensional perspectives are presented in Figure 6.4. The top panel depicts the one-dimensional view of attitudes. Person X, who is plotted on an axis depicting the one-dimensional view, would be slightly negative. The single axis does not permit one to mark Person X as being both negative and positive. The bottom panel of Figure 6.4 depicts the two-dimensional view of attitudes, with one axis (from middle to top)

representing variability in negative evaluations and the other axis (from middle to right) depicting variability in positive evaluations. From this perspective, a person can possess high amounts of negativity and positivity towards an object. For example, Person Y in the figure could be considered highly ambivalent.

Which perspective is superior? At first glance, the two-dimensional perspective seems as though it should be superior because it allows for the same patterns of positivity and negativity as the one-dimensional view, while also allowing for ambivalence. For instance, it is difficult to interpret the meaning of the neutral point in one-dimensional scales for assessing attitudes (Kaplan, 1972). Imagine that people were asked to report their attitude towards eating fried foods on a nine-point scale that ranged from '1 – extremely unfavourable' to '9 – extremely favourable' as the end points, with '5 – neither unfavourable nor favourable' in the middle. If someone indicated that his or her attitude was neutral (e.g., 'neither favourable nor unfavourable'), it is half-way between the most extreme positive response option (e.g., 'extremely favourable') and the most extreme negative response option (e.g., 'extremely unfavourable'). People could choose this option because it is a compromise between many positive and negative elements of their attitude (e.g., they have many positive and negative feelings, thoughts and behaviours regarding eating fried foods) *or* because they have no positive or negative elements whatsoever (e.g., they have never eaten fried foods).

The failure to distinguish between these two reasons for the neutral selection is important, because measures that directly assess ambivalence predict a variety of outcomes. The best known outcome is *response polarization* (Bell & Esses, 2002; MacDonald & Zanna, 1998; see Research close-up 6.1). People who are highly ambivalent towards an object are more strongly influenced by features of their environment that make salient its positive or negative attributes. This causes them to behave more favourably towards the object when the positive elements are salient than when the negative elements are salient. In contrast, non-ambivalent people are less strongly influenced by the acute salience of the positive or negative attributes.
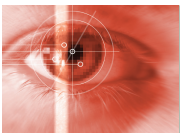
RESEARCH CLOSE-UP 6.1

Consequences of ambivalent attitudes

MacDonald, T.K. & Zanna, M.P. (1998). Cross-dimension ambivalence toward social groups: Can ambivalence affect intentions to hire feminists? *Personality and Social Psychology Bulletin*, *24*, 427–441.

Introduction

One of the reasons for the emergence of attitudinal ambivalence as an important construct is its potential to explain why people

sometimes react in very polarized ways to controversial groups or issues. This notion was illustrated nicely in MacDonald and Zanna's (1998) research, which examined consequences of students' ambivalence towards feminists. In an initial set of data, these investigators found that some students tended to both admire feminists *and* dislike them. This pattern can be labelled as cognitive-affective ambivalence, because it represents conflict between how the individuals think (e.g., admire feminists for their perceived courage) and feel (e.g., dislike feminists because of their perceived stridency). The investigators' second study, which is the focus of this close-up, examined

an important potential consequence of this ambivalence: polarized evaluations of a feminist's suitability for employment. The researchers expected that ambivalent people would be more strongly influenced by a prior event, which was whether a prior candidate who was admirable-but-dislikeable succeeded or failed in an interview.

Method

Participants
One hundred and two students (76 women and 26 men) took part for psychology course credit.

Design and procedure
The basic design included two factors: cognitive-affective ambivalence (high or low) and prime (either positive or negative). Ambivalence was measured using a questionnaire that was presented before the main study. This questionnaire asked the participants to use several scales to rate the extent to which they admired feminists (e.g., worthy of respect) and liked them (e.g., likeable). Participants who reported admiring feminists while disliking them (or liking but not admiring them) were classified as ambivalent, whereas participants who were similar in their levels of liking and admiration of feminists (either similarly high or similarly low) were classified as non-ambivalent.

These ambivalent and non-ambivalent participants were informed in a subsequent experimental session that they were taking part in a study of how people make hiring decisions. They listened to a 10-minute audio recording of a job interview, which featured an admirable but dislikeable man who was to be successful (positive prime condition) or unsuccessful with his application (negative prime condition). Participants then completed questions about the candidate's admirable qualities (positive prime condition) or dislikeable qualities (negative prime condition).

Finally, participants received, read and evaluated the applications of several women, including one who had completed a thesis and jobs that suggested a feminist political perspective. As part of this final task, participants rated the likelihood that they would hire each woman for a job (e.g., magazine editorial assistant, ombudsman). These ratings were made using different types of scales (e.g., 0% to 100%). To interpret these ratings, the responses were converted to standardized scores, such that very low values (e.g., −2) indicated low likelihood of hiring the candidate and very high values (e.g., +2) indicated high likelihood of hiring the candidate.

Results

The primary dependent measure was the rated likelihood of hiring the feminist applicant. As shown in Figure 6.5, participants
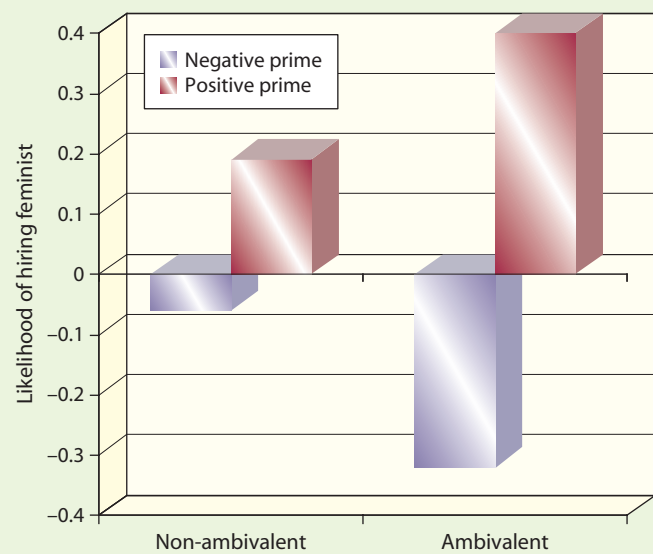

Figure 6.5 *Intentions to hire feminists as a function of cognitive-affective ambivalence and type of prime.*

who exhibited a high degree of ambivalence towards feminists reported stronger intentions to hire the feminist candidate after seeing the admirable-but-dislikeable male candidate succeed than after seeing him fail. In contrast, participants who exhibited a low degree of ambivalence towards feminists were less affected by the success or failure of the admirable-but-dislikeable male candidate. Thus, only the ambivalent participants' intentions were affected by the prime.

Discussion

MacDonald and Zanna (1998) concluded that cognitive-affective ambivalence has important consequences for behaviour. When people possess this ambivalence, making them mindful of either the cognitive (e.g., admiration) or affective (e.g., dislike) elements of their attitudes causes their behaviour to reflect the salient elements. As a result, ambivalent people might appear to strongly favour a person who is a target of their ambivalence (e.g., a feminist) in some situations (e.g., after a positive event), but strongly disfavour the individual in other situations (e.g., after a negative event). Thus, behaviour that may seem quizzical and contradictory on the surface may be explicable by considering the extent to which there is ambivalence in the underlying attitude.

SUMMARY

An important issue related to attitudes concerns how positive and negative evaluations are organized within and among the affective, cognitive and behavioural components of attitude. The one-dimensional view postulates that the positive and negative elements are stored as opposite ends of a single dimension. The two-dimensional view postulates that positive and negative elements are stored along two separate dimensions.

WHY DO WE HOLD ATTITUDES?

What is the most basic psychological need served by attitudes?
How might knowledge of attitude functions influence choice of
*   persuasive messages in advertising campaigns?*
Do people vary in the functions of their attitudes?

Individuals hold attitudes for a variety of reasons. For example, our attitudes towards the Welsh rugby team developed from many of our friends and colleagues supporting the same team. In contrast, our attitudes towards abortion are based on the value we place on an individual's freedom of choice and the sanctity of human life. Over the years, attitude researchers have devoted considerable attention to understanding the needs or functions that are fulfilled by attitudes.

attitude function the psychological need fulfilled by an attitude

The most prominent models of **attitude functions** were developed almost 50 years ago (Katz, 1960; Smith,

Plate 6.3 *Attitudes towards, e.g., the Welsh rugby team may be developed from friends supporting the same team.*

Bruner & White, 1956). Smith et al. (1956) suggested that attitudes serve three primary functions or needs: object appraisal, social adjustment and externalization. *Object appraisal* refers to the ability of attitudes to summarize the positive and negative attributes of objects in our social world. For example, attitudes can help people to approach things that are beneficial for them and avoid things that are harmful to them (Maio, Esses, Arnold & Olson, 2004). *Social adjustment* is fulfilled by attitudes that help us to identify with people we like and to dissociate from people we dislike. For example, individuals may buy a certain soft drink because it is endorsed by their favourite singer. *Externalization* is fulfilled by attitudes that defend the self against internal conflict. For example, bad golfers might develop an intense dislike for the game because their poor performance threatens their self-esteem.

In his own program of research, Katz (1960) proposed four attitude functions, some of which relate to those proposed by Smith et al. (1956): knowledge, utility, ego defence and value expression. The *knowledge* function represents the ability of attitudes to organize information about attitude objects, while the *utilitarian* function exists in attitudes that maximize rewards and minimize punishments obtained from attitude objects. These functions are similar to Smith et al.'s (1956) object-appraisal function. Katz's *ego-defensive* function exists in attitudes that serve to protect an individual's self-esteem and is similar to Smith et al.'s (1956) externalization function. Finally, Katz proposed that attitudes may serve a *value-expressive* function, such that an attitude may express an individual's self-concept and central values. For example, a person might cycle to work because she values health and wishes to preserve the environment.

A number of themes have developed from research on attitude functions since the development of these theoretical perspectives. Here, we focus on two important developments. First, evidence implies that strongly held attitudes fulfil an object-appraisal function. Second, a distinction between instrumental attitudes (those that serve a utilitarian function) and symbolic attitudes (those that serve a value-expressive function) appears to be useful. In the following sections, we describe evidence regarding these observations.

Object appraisal

Smith et al.'s (1956) object-appraisal function (which combines aspects of Katz's utilitarian and knowledge functions) perhaps best explains why people form attitudes in the first place. This function suggests that attitudes classify objects in the environment for the purposes of action. In their description of the object-appraisal function, Smith et al. suggested that attitudes are *energy-saving devices*, because attitudes make attitude-relevant judgements faster and easier to perform. Two programs of research have directly supported this line of reasoning, while suggesting important caveats. First, Fazio (1995, 2000) argued that the object-appraisal function should be more strongly served by attitudes that are high in accessibility. This prediction is based on the assumption that strong attitudes guide relevant judgements and behaviour, whereas weak attitudes will have little effect during judgement and behaviour processes. Consistent with this hypothesis, research has shown that

(a)

(b)

Plates 6.4a and b *Attitudes toward abortion might be based on freedom of choice and sanctity of human life.*

highly accessible attitudes increase the ease with which people make attitude-relevant judgements. For example, people who have accessible attitudes towards an abstract painting have been shown to be subsequently faster at deciding whether they prefer the painting over another painting (see Fazio, 2000).

Another program of research has revealed that the strength of the object-appraisal motivation is influenced by differences across people in the need for closure, which is a 'desire for a definite answer on some topic, any answer as opposed to confusion and ambiguity' (Kruglanski, 1989, p. 14). As applied to the study of attitudes, object appraisal reflects the notion that attitudes can provide such 'answers', because attitudes help people to make decisions about attitude objects. As a result, a high need for closure should increase the desire to form and maintain attitudes. Kruglanski and colleagues have tested this hypothesis in a number of studies. In one study by Kruglanski, Webster and Klem (1993), some participants (who were either high or low in the need for closure) were initially given sufficient information that allowed them to form an attitude about a legal case, whereas other participants were not given this information (and were unable to form

an initial attitude). Later, all participants were given additional information about the case. The results of the study revealed that the impact of the later information on participants' final attitudes depended upon *both* participants' level of need for closure and whether they had already formed an attitude towards the case. As can be seen in Figure 6.6, among participants who had already formed an attitude based on the initial information, those who were high in need for closure were less persuaded by new information than participants who were low in need for closure. In contrast, if participants had not yet formed an attitude, those who were high in need for closure were more persuaded by new information than participants who were low in need for closure.

Instrumental versus value-expressive attitudes

Several researchers have argued for a distinction between instrumental (or utilitarian) and value-expressive attitudes (e.g., Herek,

Plate 6.5 *A person might cycle to work because she values health and wishes to preserve the environment.*

Plate 6.6 *How accessible is your attitude towards Queen Elizabeth II?*

1986; Prentice, 1987; Sears, 1988). Instrumental attitudes classify attitude objects according to their ability to promote self-interest, whereas value-expressive attitudes express concerns about self-image and personal values. Many lines of research support the distinction between instrumental and value-expressive attitudes. First, some attitude *objects* elicit attitudes that are associated primarily with one or the other of these functions. For example, Shavitt (1990) found that people's thoughts about air conditioners and coffee focus on the utility of the objects, whereas thoughts about greeting cards and national flags tend to focus on the objects' capacity to symbolize the self and social values.

Second, evidence indicates that people are more persuaded by messages containing arguments that match the primary function of their attitudes than by messages containing arguments that do not match the primary function of their attitudes. For example, Shavitt (1990) found that instrumental advertisements for products about which people held instrumental attitudes (e.g., an air conditioner) were more persuasive than symbolic advertisements for instrumental products. Similarly, Snyder and DeBono
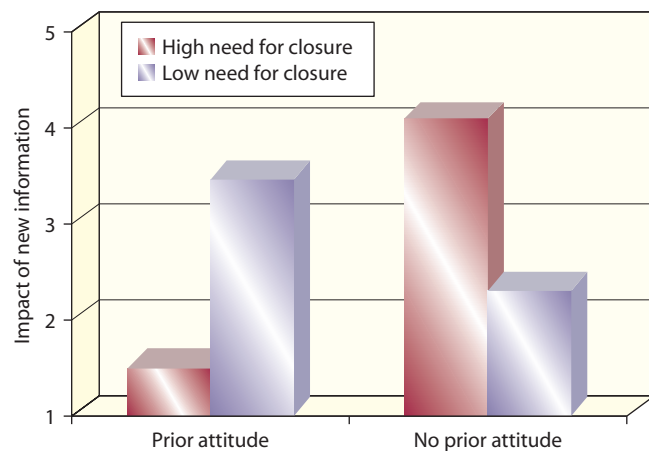

Figure 6.6 *The impact of new information by prior attitude and need for closure (adapted from Kruglanski et al., 1993).*

self-monitoring an individual difference construct concerning differences in how people vary their behaviour across social situations

(1985) found that individual differences in self-monitoring affected the persuasiveness of different types of advertisements. *Self-monitoring* (Snyder, 1974, 1987) refers to differences in how people vary their behaviour across social situations. While high self-monitors are oriented to situational cues and finely tune their behaviour to the situation in which they find themselves, low self-monitors tend to behave in ways that are consistent with their core values and tend not to adapt their behaviour to the situation in which they find themselves (see Individual Differences 6.1). As applied to advertising, Snyder and DeBono predicted that high self-monitors might be more influenced by advertisements that convey the positive images associated with using a particular product, while low self-monitors might be more influenced by advertisements that feature the quality of a product.

To test this hypothesis, Snyder and DeBono (1985) presented participants with one of two versions of an advertisement for a particular brand of whisky. In both versions of the advertisement,

Figure 6.7 *The influence of self-monitoring and appeal type on willingness to pay for a consumer product (adapted from Snyder & DeBono, 1985).*

INDIVIDUAL DIFFERENCES 6.1

Self-monitoring

Self-monitoring refers to differences in how people vary their behaviour across social situations (Snyder, 1974). High self-monitors are oriented to situational cues and tune their behaviour to the social situation, whereas low self-monitors tend to behave in ways that are consistent with their values and tend not to mould their behaviour to the social situation. Self-monitoring is assessed by a scale developed by Snyder (1974). Sample items are listed below. For each item, respondents are asked whether the statement is true or false as applied to them.

1 I can make impromptu speeches even on topics about which I have almost no information.
2 I can only argue for ideas which I already believe.
3 When I am uncertain how to act in a social situation, I look to the behaviour of others for cues.
4 My behaviour is usually an expression of my true inner feelings, attitudes and beliefs.
5 In different situations and with different people, I often act like very different persons.
6 I would not change my opinions (or the way I do things) in order to please someone else or win their favour.

High self-monitors would be more likely to judge statements 1, 3 and 5 as true of themselves, whereas low self-monitors would be more likely to judge statements 2, 4 and 6 as true of themselves.
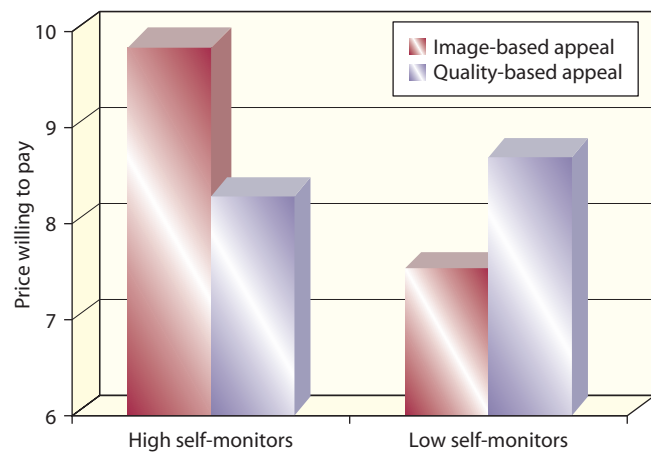
there was a picture of a whisky bottle resting on a set of architects' plans for a house. In one version of the advertisement, the picture was accompanied by the phrase 'You're not just moving in, you're moving up'. In the second version of the advertisement, the same photo was accompanied by the phrase 'When it comes to great taste, everyone draws the same conclusion'. It was predicted that high self-monitors would be more persuaded by the image-based appeal, while low self-monitors would be more persuaded by the quality-based appeal. The results of the study are shown in Figure 6.7. As predicted, Snyder and DeBono (1985) found that high self-monitors were willing to pay more for the whisky when presented with the image-based appeal, whereas low self-monitors were willing to pay more when presented with the quality-based appeal. Further research has demonstrated that these 'match the message to the function' effects occur because people devote more attention to convincing arguments that match the function of their attitude than to convincing arguments that do not match the function of their attitude (Petty & Wegener, 1998b).

SUMMARY

Individuals hold attitudes for a variety of reasons. The most prominent models of attitude functions were developed almost 50 years ago by Smith et al. (1956) and Katz (1960). Among the functions, the object-appraisal function is especially important as it suggests that attitudes serve as energy-saving devices that make judgements easier and faster to perform. There is also an important distinction between instrumental and value-expressive attitudes. Knowing the primary function of an attitude is important, because attempts at attitude change are more likely to be successful when the persuasive appeal matches the function of the attitude.

LINKING ATTITUDE CONTENT, STRUCTURE AND FUNCTION

What features of attitudes can make them strong?
What are some potential consequences of strong attitudes?

Attitude content, attitude structure and attitude function are inexorably linked. Indeed, we consider them to be analogous to three witches who make a better brew together than alone (Maio & Haddock, 2004). For example, although it is possible to partly disentangle the effects of attitude structure and attitude function (Maio & Olson, 2000; Murray, Haddock & Zanna, 1996), it is apparent that they are often related. This relation can be illustrated by considering attitudes towards a brand of car that are based on a need to conserve fuel. These attitudes should be based on beliefs about the extent to which the car obtains good fuel economy. Similarly, if attitudes towards a style of clothing fulfil a psychological need to enhance social relations, then these attitudes should be based on beliefs about the extent to which the style is preferred among one's friends. In other words, attitudes that serve different functions should often differ in the content of the beliefs that support them (see also Haddock & Maio, 2004).

A question of content, structure and function: How stable are attitudes?

One important question that is relevant to the content, structure and function of attitudes is the extent to which attitudes are stable over time. This question is relevant to efforts to quantify the strength of an attitude. As mentioned at the beginning of the chapter, we feel more strongly about some topics than about others. For over 75 years, the topic of *attitude strength* has been of considerable interest to attitude researchers. During this time, the strength of an attitude has been conceptualized in many different ways. For example, individuals can simply be asked how *certain* they are of their attitude, as well as how *important* their attitude is to them personally (see Haddock, Rothman, Reber & Schwarz, 1999). The strength of an attitude can also be measured by assessing its distance from the middle of a scale. This type of index, known as attitude *extremity*, has been found to have many important outcomes (see Abelson, 1995). Similarly, some attitudes can be retrieved from memory more quickly than others; such easily retrievable attitudes are referred to as being highly *accessible* (Fazio, 1995).

Strong attitudes differ from weak attitudes in a number of ways. Krosnick and Petty (1995) argue that there are four key manifestations of strong attitudes. First, strong attitudes are *more persistent*. That is, they are more temporally stable over the passage of time (Visser & Krosnick, 1998). Second, strong attitudes are *more resistant to change*. When faced with a persuasive appeal, strong attitudes are less likely to change than weak attitudes (Petty, Haugtvedt & Smith, 1995). Third, strong attitudes are *more likely to influence information processing*. Research has revealed that people devote greater attention to information that is relevant to strong versus weak attitudes (Houston & Fazio, 1989). Finally, strong attitudes are *more likely to guide behaviour*. Put simply, we are more likely to act upon strong versus weak attitudes (Holland, Verplanken & van Knippenberg, 2002; see Research close-up 6.2). We return to this last issue later in the chapter.

SUMMARY

Attitude content, attitude structure and attitude function are inexorably linked. Centrally relevant to these concepts is attitude strength. Attitudes vary in the degree to which they are persistent over time, resistant to change, influential in guiding information processing and influential in predicting behaviour.

THE MEASUREMENT OF ATTITUDES

What do we mean by explicit and implicit attitudes?
Do they measure the same thing?
Have social psychologists developed reliable and valid measures of attitudes?

Attitudes, like most constructs in psychology, are not directly observable. For instance, we can not see that a person holds a positive attitude towards red sports cars. Rather, attitudes have to be inferred from the individual's responses to questions about these vehicles (Fazio & Olson, 2003). As a result, social psychologists have needed to develop different methods to measure attitudes. In this section of the chapter, we describe some of the most commonly used techniques that have been developed. For forms of attitude measurement other than those discussed here (e.g., psychophysical measures, behavioural measures), see Bohner and Wänke (2002) and Fazio and Olson (2003).

In introducing different types of attitude measures, we have differentiated them on the basis of whether they are **explicit** (i.e., direct) or **implicit** (i.e., indirect). The distinction between explicit and implicit measures and processes has a long history

explicit measures of attitude attitude measures that directly ask respondents to think about and report an attitude

implicit measures of attitude attitude measures that assess attitudes without directly asking respondents for a verbal report of an attitude
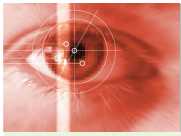
RESEARCH CLOSE-UP 6.2

Attitudes can predict and follow behaviour

Holland, R.W., Verplanken, B. & van Knippenberg, A. (2002). On the nature of attitude–behavior relations: The strong guide, the weak follow. *European Journal of Social Psychology*, *32*, 869–876.

....

Introduction

The experiment considers the circumstances under which (1) attitudes predict behaviour and (2) behaviour predicts attitudes. The authors review evidence demonstrating both causal pathways. First, they review a number of studies demonstrating that attitudes influence behaviour (some of these studies are discussed in this chapter). Second, they review a number of studies (derived from self-perception theory and dissonance theory) demonstrating that attitudes can sometimes be inferred from past behaviour. Holland et al. suggest that the concept of attitude strength is crucial to understanding when attitudes predict behaviour (as opposed to behaviour predicting attitudes). Specifically, Holland et al. postulate that strong attitudes are more likely than weak attitudes to predict behaviour, whereas weak attitudes are more likely than strong attitudes to follow from behaviour.

Method

Participants
One hundred and six students participated in the study.

Design and procedure
The experiment was split into two sessions, with an interval of one week. In session 1, participants completed measures assessing the favourability and the strength of their attitudes towards Greenpeace. Attitude favourability was measured by the question 'How positive or negative is your attitude towards Greenpeace?'; one of the attitude strength items was 'How certain are you about your attitude towards Greenpeace?' One week later, participants returned for an unrelated study. At the

end of this unrelated study, they were paid the equivalent of about £3 (in various coins and bills). Immediately after being paid, participants were told that the experimenter was also conducting a small study for Greenpeace. Importantly, participants were also informed that they could choose to donate money to Greenpeace. After making their decision whether or not to donate money, the experimenter asked participants to complete a short questionnaire, which included an assessment of their attitude towards Greenpeace.

The *attitude–behaviour* relation was derived by comparing the favourability of participants' attitude at time 1 with the amount of money they donated at time 2. The *behaviour–attitude* relation was derived by comparing the amount of money participants donated at time 2 with the measure of attitude that was taken immediately after the donation behaviour.

Results

As expected, the researchers found that attitude strength was crucial for understanding when attitudes predict behaviour as opposed to when behaviour predicts attitudes. First, with respect to the *attitude–behaviour* relation, strong attitudes at time 1 predicted behaviour at time 2; weak attitudes did not. On the other hand, with respect to the *behaviour–attitude* relation, weak attitudes were greatly influenced by behaviour; strong attitudes were not.

Discussion

Holland et al.'s (2002) findings provided support for their main hypotheses. When participants held strong opinions about Greenpeace, the favourability of their attitude predicted the amount of money they subsequently donated to the organization. When participants held weak attitudes about Greenpeace, their attitude was shaped by (i.e., inferred from) their donation behaviour. This study makes an important contribution to our understanding of the bi-dimensional causal relations between attitudes and behaviour.

within psychology. Psychologists usually think of explicit measures as those that require respondents' conscious attention to the construct being measured, whereas implicit measures are those that do not require this conscious attention. Within the context of attitude measurement, these terms can be used to distinguish between attitude measures in which the respondent is either aware *or* unaware that an attitude is being assessed (or how the attitude is being assessed). At a basic level, explicit measures of attitude are those that directly ask respondents to think about and report their attitude, whereas implicit measures of attitude are those that assess

attitudes without *directly* asking respondents for a verbal report of their attitude (Fazio & Olson, 2003).

Explicit measures of attitudes

The majority of attitude measures that have been developed can be conceptualized as explicit indicators. Most often, these measures have been self-report questionnaires, in which participants are asked to respond to direct questions about their opinions

towards the object in question. For example, if a group of researchers was interested in knowing a respondent's attitude towards abortion, they might ask the question 'What is your attitude towards abortion?' In the following section, we describe two explicit measures of attitude: Likert scales and the semantic differential.

Likert scales Likert (1932) introduced a measure of attitude based upon summated ratings. In this approach, statements are written in such a way that responses indicate either a favourable or unfavourable attitude. An example of a Likert scale to assess attitudes towards euthanasia is presented in Figure 6.8. For each item, respondents are asked to indicate their degree of agreement or disagreement. As you read the items presented in Figure 6.8, you will notice that items can be written such that a strong positive attitude towards euthanasia will produce either a 'strongly agree' response (e.g., to item 1) or a 'strongly disagree' response (e.g., to item 3). Researchers create items that are worded in opposite directions in order to help avoid response sets (i.e., the tendency for a respondent to agree or disagree with all items on a scale).

How are Likert scales scored? In a questionnaire like the one in Figure 6.8, each response alternative is allocated a score (in this case from 1 to 5). Usually, a low score is taken to indicate a strong negative attitude and a high score is taken to indicate a strong positive attitude. Thus, for item 1, an individual who strongly disagrees with the statement would be allocated a score of 1, while a person who strongly agrees would be given a score of 5. For item 3 the procedure is reversed because the item is worded in the opposite direction to item 1. Scores for this item are recoded such that an individual who strongly disagrees with the statement is expressing a positive attitude (and hence is allocated a score of 5 for that item), whereas an individual who strongly agrees with that item is expressing a negative attitude (and thus is allocated a score of 1). To the extent that the items assess the same construct (i.e., a respondent's attitude), correlations among responses to each

Please respond to each scale by placing an 'X' in the space that best represents your opinion.

EUTHANASIA

BAD:__:__:__:__:__:__:__:GOOD
NEGATIVE:__:__:__:__:__:__:__:POSITIVE
DISLIKE:__:__:__:__:__:__:__:LIKE

Figure 6.9 *A semantic differential scale to measure attitudes towards euthanasia.*

item should be high. If they are sufficiently high, scores on the individual items are averaged to form a single attitude score.

Semantic differential scales A large amount of research is interested in demonstrating how people might hold more positive attitudes towards some attitude objects (e.g., movies directed by Clint Eastwood) than others (e.g., movies directed by Martin Scorsese). To address questions concerning the attitudes that people hold about a variety of attitude objects, it was necessary to develop methodologies that would allow researchers to measure attitudes towards many attitude objects along a common scale. Among the efforts to develop such a technique, the method that has been the most influential is the semantic differential approach (Osgood, Suci & Tannenbaum, 1957). An example of a semantic differential scale is presented in Figure 6.9. In this technique, participants are given a set of bipolar adjective scales, each of which is separated into a number of categories. Participants are asked to rate the attitude object by indicating the response that best represents their opinion. The bipolar adjectives typically include general evaluative terms such as favourable–unfavourable, good–bad and like–dislike. Similar to Likert scales, correlations among the items should be positive (to the extent that they measure the same attitude). If they are sufficiently high, they can be combined to form a single attitude score.

Issues relevant to the explicit measurement of attitudes

Historically, explicit measures of attitudes have dominated empirical research on the psychology of attitudes. Despite their wide appeal, however, a number of concerns have been raised over their use. For example, individuals might sometimes be unaware of their attitude towards an object (Fazio, Jackson, Dunton & Williams, 1995; Greenwald & Banaji, 1995; Nisbett & Wilson, 1977). Further, research has demonstrated that subtle differences in the way in which items are presented can influence responses to direct measures of attitude (see Haddock & Carrick, 1999; Schwarz, 1999).

Probably the most important criticism about direct measures of attitude is that they are affected by people's motivation to give *socially desirable responses*. This refers

The following statements are part of a survey on public attitudes. There are no right or wrong answers, only opinions. For each statement, indicate the number that best represents your personal opinion by using the following scale:

If you strongly disagree with the statement, indicate 1
If you disagree with the statement, indicate 2
If you neither disagree nor agree with the statement, indicate 3
If you agree with the statement, indicate 4
If you strongly agree with the statement, indicate 5

(1) I think euthanasia should be made legal. _____

(2) I would support a referendum for the institution of euthanasia. _____

(3) Euthanasia should never be used. _____

(4) Euthanasia is appropriate when someone wants to die. _____

(5) I am against the use of euthanasia in all circumstances. _____

Figure 6.8 *An example of a Likert scale to assess attitudes towards euthanasia.*

socially desirable responding a deliberative attempt to misrepresent responses so as to present oneself in a favourable way

to deliberate attempts to misrepresent (or fake) responses in a way that allows respondents to present themselves in a favourable way (Paulhus & John, 1998). To the extent that the researcher is interested in studying attitudes towards sensitive issues and/or issues that highlight norms of political or social appropriateness, people's responses might not necessarily reflect their true opinion, but instead may reflect a desire to present themselves in a positive manner. For example, in many cultures, it is considered socially inappropriate to express a prejudicial attitude towards ethnic minorities. The use of explicit, direct measures of attitude in such contexts may not provide an accurate report of attitude, as respondents may be reluctant to be perceived as prejudiced.

Implicit measures of attitudes

In an attempt to minimize problems associated with direct measures of attitude, social psychologists have developed a number of indirect or implicit response strategies. We describe here two of the most common measures, the evaluative priming technique (see Fazio et al., 1995) and the Implicit Association Test (IAT; Greenwald, McGhee & Schwartz, 1998).

Evaluative priming Fazio (1995) defines an attitude as an association in memory between an attitude object and a summary evaluation. According to Fazio and colleagues, these associations vary in strength, and the strength of the association determines the accessibility of an attitude. Let us describe this perspective more concretely by using an example. One of us *really* hates Brussels sprouts. Even thinking about Brussels sprouts sets off an immediate and strong negative reaction within him. He also dislikes rice cakes, but his reaction is not as aversive. Fazio's model would suggest that the negative attitude towards Brussels sprouts is more accessible than the negative attitude towards rice cakes, because the association in memory between 'Brussels sprouts' and 'dislike' is stronger than the association between 'rice cakes' and 'dislike'.

According to Fazio and colleagues, the strength of these associations should affect how quickly an individual responds to an evaluative word after having been briefly presented with the attitude object. In a typical study of this process, a participant is seated in front of a computer. The attitude object is briefly presented on the computer screen (e.g., the term 'Brussels sprouts') and then replaced by an evaluative adjective (e.g., 'disgusting'). The participant's task is to indicate the valence of the adjective as quickly as possible. That is, the participant indicates whether the *adjective* means something positive or negative, *not* whether the attitude object itself is good or bad. Of primary interest is the speed with which the participant makes this response. In our example, the presentation of 'Brussels sprouts' should produce faster responses to negative adjectives and slower responses to positive adjectives. Furthermore, if the person hates Brussels sprouts more than rice cakes, this facilitation/inhibition should be more pronounced when presented with Brussels sprouts than when presented with rice cakes.

This approach has been used in studies of numerous attitude objects, including attitude objects that might elicit social desirability concerns on explicit measures. For example, Fazio et al. (1995) adapted the evaluative priming paradigm to study prejudicial attitudes. In this study, white participants were instructed that their task was to indicate the meaning of positive and negative adjectives. However, prior to the presentation of each individual adjective, participants were briefly shown a photo of a black or white person. Fazio et al. (1995) found that, among white participants, the presentation of a black face produced faster responding to negative adjectives and slower responses to positive adjectives (relative to what was found in response to the presentation of white faces). Thus, in this study, a negative attitude towards black people was represented by differences in the time required by white participants to categorize positive and negative adjectives after the presentation of black versus white faces (black participants did not show this tendency). Further, white participants who showed the pattern most strongly were more likely to show more negative behaviour towards a black experimenter in the study. Thus, these differences in response times were easily interpretable as reflecting a negative attitude towards blacks.

The Implicit Association Test Another important indirect procedure is the Implicit Association Test (IAT; Greenwald et al., 1998). For ease of presentation, we will work through an example of procedures that would use the IAT to assess gender attitudes. This example is depicted in Figure 6.10. In a typical IAT study, participants are seated at a computer and asked to classify attitude objects and adjectives. An IAT study generally involves five separate blocks. In *block 1* of a gender IAT, participants are presented
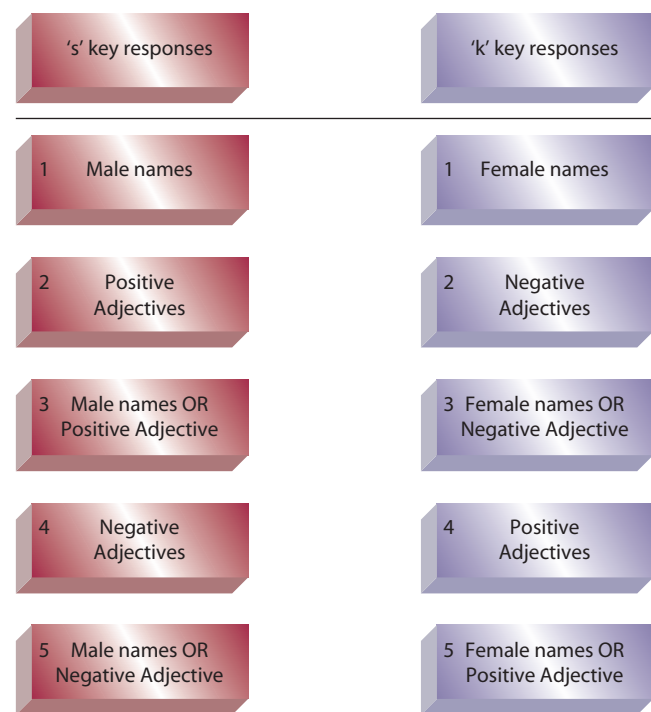

Figure 6.10 *The procedure of the five block Implicit Association Test.*

with a variety of male and female names. Participants would be instructed to make one response (e.g., press the 's' key on a keyboard) when they see a male name and make a different response (e.g., press the 'k' key) when they see a female name. They are asked to perform this task (and all others in the test) as quickly as possible. There might be anywhere from 20–40 trials within this (and subsequent) blocks. In *block 2*, participants are presented with a variety of positive and negative adjectives. Again, they would be asked to make one response (press the 's' key) when a positive adjective appears on the screen and a different response (press the 'k' key) when a negative adjective appears on the screen. In *block 3*, participants are instructed that they will see names or adjectives and that they are to press the 's' key when they see a male name *or* positive adjective, and press the 'k' key when they see a female name *or* negative adjective. *Block 4* is similar to block 2, but this time the responses are reversed, such that a participant now presses the 's' key when a negative word appears and the 'k' key when a positive word appears. *Block 5* is similar to block 3, but this time participants are to press the 's' key when a male name or negative adjective appears, and the 'k' key when a female name or positive adjective appears. The key blocks are 3 and 5 – they measure the strength of association between an attitude object (in this case gender categories) and evaluations.

How does the IAT use these blocks to compute an attitude score? Imagine an individual who is more negative about women compared to men. For this individual, the task in block 3 should be quite simple. If the person favours men to women, trials in which men are associated with positive adjectives and women are associated with negative adjectives should produce fast responses, because the links between these categories and the evaluations are congruent. Let's imagine that our participant's mean response time to trials in this block is 700 ms. In contrast, responses in block 5 should take longer for this participant. Given the person's inherent preference for men over women, trials that associate women with positivity and men with negativity should require more time to elicit a response. Let's imagine that the individual's mean response time for this block is 1200 ms. Thus, our participant's mean response time for block 3 is shorter than that for block 5 by 500 ms. This difference is referred to as the IAT effect (see Greenwald, Nosek & Banaji, 2003; Greenwald et al., 1998, for additional details about computing IAT effects).

The IAT and other implicit measures have become increasingly popular among attitude researchers (see Fazio & Olson, 2003). These types of measures have gained popularity because they assess attitudes without the necessity of asking the participant for a direct verbal report. As noted earlier, part of their appeal is due to the belief that responses on these measures are less likely to be affected by socially desirable responding (see Fazio & Olson, 2003). That said, despite (or perhaps due to) their popularity, implicit measures of attitude have also been the source of criticism.

For example, a number of researchers have argued that the (sometimes) low correlation found between implicit and explicit measures of attitude implies that they assess different constructs (see Karpinski & Hilton, 2001). Other criticisms have focused on *how* implicit measures assess attitudes. For instance, Olson and Fazio (2004) have claimed that the IAT can be contaminated by extrapersonal associations with the attitude object. These authors argue that a personalized version of the IAT (one in which the positive and negative judgements are personalized; e.g., using 'I like' and 'I don't like' versus 'pleasant' and 'unpleasant') is more effective. As research continues to progress on implicit measures of attitude, the debate around implicit measures will surely continue. Our own view is that implicit measures of attitude have much to offer, in that they have allowed social psychologists to generate novel and important questions about the underlying causes of human behaviour.

Are attitude measures reliable and valid?

A sound measure must be both reliable and valid. *Reliability* refers to 'the degree to which test scores are free from errors in measurement' (American Psychological Association, 1985, p. 19). In the context of attitude measurement, reliability has two important meanings. First, internal consistency refers to whether the individual items are assessing the same psychological construct. Items that assess the same construct should be positively correlated. Second, test–retest reliability refers to consistency in scores across time. A sound attitude measure should produce similar scores across repeated testing (in the absence of any true attitude change).

A number of studies have investigated the reliability of explicit and implicit measures of attitude. Explicit measures have been shown to exhibit high reliability. For example, semantic differential scales using the evaluative dimensions of good–bad, positive–negative and favourable–unfavourable exhibit high internal consistency (Huskinson & Haddock, 2004). Given their more recent introduction, less research has been conducted assessing the reliability of implicit measures of attitude. However, a paper by Cunningham, Preacher and Banaji (2001) found that several implicit measures possessed reasonably high internal consistency and test–retest correlations.

The *validity* of a measure refers to the degree to which it assesses the construct it is designed to assess. A number of studies have investigated the validity of explicit and implicit measures of attitude. Explicit measures of attitude have been shown to be valid. For example, Haddock, Zanna and Esses (1993) demonstrated that a semantic differential measure of attitudes towards gay men was highly predictive of a subsequent measure of anti-gay discrimination (see Eagly & Chaiken, 1993, for more examples). Regarding implicit measures, Cunningham et al. (2001) and Fazio and Olson (2003) have found that implicit measures possess convergent and predictive validity. One particularly compelling study used functional magnetic resonance imaging (fMRI) technology to assess brain activity in response to different stimuli. Phelps et al. (2000) found that an IAT measure of racial prejudice was highly predictive of amygdala activation when presented with pictures of unknown black individuals (the amygdala is an area of the brain associated with fearful evaluations). In this research, pronounced amygdala activation in response to black faces was associated with strong implicit prejudice towards African Americans.

SUMMARY

Attitudes can be measured in a number of ways. Attitude measures can be distinguished on the basis of whether they are *explicit* (i.e., direct) or *implicit* (i.e., indirect). Explicit measures of attitude directly ask respondents to think about and report an attitude, whereas implicit measures of attitude are those that assess attitudes *without* directly asking respondents for a verbal report of their attitude. Explicit and implicit measures are both useful tools in attempts to understand and predict human behaviour.

DO ATTITUDES PREDICT BEHAVIOUR?

How do measurement issues affect whether attitudes predict behaviour?
What factors affect relatively deliberative and contemplative attitude–behaviour sequences?
How does the MODE model explain relatively spontaneous attitude–behaviour sequences?

Common sense would dictate that attitudes should predict behaviour. For example, one would expect that an individual who possesses a positive attitude towards the environment would engage in recycling behaviour. Similarly, it seems sensible to predict that a student who strongly supports saving endangered animals will make an annual donation to the World Wildlife Fund. However, is the link between attitudes and behaviour this simple?

In addressing this question, we wish to start by turning back time and visiting the United States of America in the early 1930s. A college professor named Richard LaPiere was travelling across America with a young Chinese couple. At the time, there was widespread anti-Asian prejudice in the United States. As a result of this prejudice, LaPiere was concerned whether he and his travelling companions would be refused service in hotels and restaurants. Much to his surprise, only once (in over 250 establishments) were they not served. A few months after the completion of the journey, LaPiere sent a letter to each of the visited establishments and asked whether they would serve Chinese visitors. Of the establishments that replied, only one indicated that it would serve such a customer, with over 90 per cent stating that they definitely would not (the rest were undecided). While there are a number of methodological problems with LaPiere's (1934) study (e.g., there was no way of ensuring that the individual who answered the letter was the same person who served LaPiere and his friends), it is a reminder that people's behaviour might not necessarily follow from their attitudes.

Let us now move ahead 30 years on from this study. By the late 1960s, a number of studies had examined the relation between attitudes and behaviour. In 1969, Wicker reviewed the findings of these studies. He reached a rather sobering conclusion: attitudes were a relatively poor predictor of behaviour. Across almost 40 studies that were conducted before 1969, Wicker found that the average correlation between attitudes and behaviour was a modest .15. These conclusions led a number of social psychologists to question the value of the attitude concept. It was argued that if attitudes do not guide actions, then the construct is of limited use.

Attitude researchers responded to this criticism by devoting greater attention to the study of *when* and *how* attitudes predict behaviour. In the last 30 years, research findings have led to a more optimistic conclusion – attitudes do predict behaviour, under certain conditions. In a meta-analytic review of the literature, Kraus (1995) compared the results of over 100 studies on the **attitude–behaviour relation**. He found that the average correlation between opinions and actions was .38, a value much higher than that obtained by Wicker

attitude–behaviour relation the degree to which an attitude predicts behaviour

(1969). This difference in correlations could be explained in various ways. First, more modern research might be using better measures of attitudes and/or behaviours. Second, modern researchers might be using better techniques for testing their predictions. Third, contemporary researchers might be doing a better job of examining situations *when* attitudes are highly predictive of behaviour. In this section of the chapter, we consider a number of variables that influence the attitude–behaviour relation and introduce models that have been developed to understand how attitudes predict behaviour.

When do attitudes predict behaviour?

(1) When there is correspondence between attitudinal and behavioural measures A number of early attempts to assess the attitude–behaviour relation (included in Wicker's, 1969, review) were plagued by methodological problems. Specifically, in many of these studies there was a low degree of *correspondence* between the measures of attitude and behaviour. Returning to LaPiere's (1934) research, his measure of attitude asked respondents to indicate whether they would serve 'members of the Chinese race'. This statement is quite broad in comparison to the measure of behaviour, which involved service being offered to a highly educated, well-dressed Chinese couple accompanied by an American college professor. Had the attitude measure been more specific (e.g., 'would you serve a highly educated, well-dressed Chinese couple accompanied by an American college professor?'), the relation between attitudes and behaviour in LaPiere's (1934) study might have been more pronounced.

The idea that there needs to be high correspondence between measures of attitude and behaviour was articulated by Ajzen and Fishbein (1977). They stated that measures of attitude and behaviour need to correspond in four key ways: action, target, context and time. The *action* element refers to the behaviour being performed (e.g., recycling glass). The *target* element refers to the target of the behaviour (e.g., a particular brand of coffee, a political candidate). The *context* element refers to the environment in

which the behaviour is performed (e.g., whether the behaviour is performed alone or in the presence of others). Finally, the *time* element refers to the time frame in which the behaviour is performed (e.g., whether the behaviour is to be performed immediately or in one year's time). Ajzen and Fishbein (1977) argued that a measure of attitude will be most effective in predicting behaviour when both measures correspond on these four elements. Further, they conducted a review of the literature that supported this conclusion.

The importance of correspondence between measures of attitude and behaviour was also demonstrated in a study by Davidson and Jaccard (1979). These researchers were interested in predicting women's use of birth control pills. In this study, women were asked a number of questions about their attitudes, ranging from questions that were very general (their attitude towards birth control) to somewhat specific (their attitude towards birth control pills) to very specific (their attitude towards using birth control pills during the next two years). Two years after participants responded to these attitude questions, they were contacted by the researchers and asked to indicate if they had used birth control pills in the previous two years. It was predicted that the correlation between attitudes and behaviour would increase as the measures became more correspondent. The results of this study confirmed the authors' predictions. To start, the general attitude measure did not predict behaviour ($r = .08$), probably because this measure was too general in relation to the measure of behaviour. The question that was somewhat specific did a better job of predicting behaviour ($r = .32$); this item had the advantage of matching the behavioural measure with respect to the target. Finally, the most specific question was very effective in predicting behaviour ($r = .57$), because the attitude measure was highly correspondent with the measure of behaviour with respect to two key elements: target and time.

(2) It depends upon the domain of behaviour Research has also demonstrated that the relation between attitudes and behaviour differs as a function of the topic under investigation. In his review of the literature, Kraus (1995) found that topics varied in the degree to which opinions predicted actions. At one extreme, the relation between political party attitudes and voting behaviour tends to be very high. For example, in an investigation conducted during the 1984 American presidential election, Fazio and Williams (1986) measured attitudes towards the then United States President Ronald Reagan (see Plate 6.7). Approximately five months later, they measured whether participants voted for Reagan or his opponent. Despite the time lag between measures, the correlation between voters' initial attitude towards Reagan and their subsequent voting behaviour was an impressive .78. At the other extreme, Kraus (1995) noted that there is a low correlation between individuals' attitudes towards blood donation and the act of donating blood. At first glance, it is perhaps not surprising that this is a behavioural domain where one might expect a low attitude–behaviour relation. It may be that a low relation arises because the behaviour of donating blood is much more difficult to enact than the simple expression of one's attitude through a behaviour like voting.

(3) It depends upon the strength of the attitude As mentioned earlier in the chapter, attitudes differ in their strength. For

Plate 6.7 *Do attitudes towards politicians predict voting behaviour?*

instance, one of us absolutely loves the music of Bruce Springsteen, the other feels less strongly. As we already know, attitude researchers would say that one author has a very strong positive attitude towards the music of Bruce Springsteen, while the other has a weak attitude. Which author recently drove all night to see Bruce Springsteen perform live . . . for the eighth time? Not surprisingly, it is the one with the strong attitude.

A number of studies have demonstrated that strong attitudes are more likely than weak attitudes to predict behaviour. For instance, returning to the study of Fazio and Williams (1986), recall that they found a very high correlation between political attitudes and voting behaviour. This study also contained a measure of attitude strength – the accessibility of the participants' initial attitude. Some participants had very accessible (i.e., strong) attitudes towards Reagan, whereas other participants' attitudes were less accessible (i.e., weak). Fazio and Williams (1986) found that the correlation between attitudes and behaviour was significantly greater among those individuals whose attitudes towards Reagan were high in accessibility. Similar results have been found in many other studies using different operationalizations of attitude strength (see Eagly & Chaiken, 1993; Kraus, 1995), leading to the conclusion that strong attitudes are more likely than weak attitudes to predict behaviour.

(4) The role of personal variables The final set of variables we wish to consider concerns differences across people in the tendency to behave in line with their actions. In addition to

examining how situations influence behaviour, social psychologists are interested in understanding how personality differences help account for our actions. With respect to the attitude–behaviour relation, a number of researchers have examined how various personality constructs moderate the degree to which opinions influence actions.

The personality construct most frequently tested as a moderator of the attitude–behaviour relation is *self-monitoring* (Snyder, 1974, 1987). As discussed earlier in the chapter, self-monitoring refers to differences across people in how they vary their behaviour across social situations. A number of studies have investigated whether the relation between attitudes and behaviour is more pronounced for low self-monitors than for high self-monitors. In one study testing this proposal, Snyder and Kendzierski (1982) investigated attitudes towards affirmative action (policies that give special advantages to members of ethnic minority groups). These researchers gave students who favoured or opposed affirmative action the opportunity to participate in a social situation that supported the behavioural expression of a positive attitude towards this issue. The results revealed that, among low self-monitors, decisions on whether to participate were predicted by their attitude towards affirmative action. However, among high self-monitors the behavioural decision was unrelated to the favourability of their attitude.

Another relevant variable that affects the size of the attitude–behaviour relation is the nature of the participants involved in the research. Research has found that students show lower attitude–behaviour relations compared to non-students. For example, Kraus (1995) observed that the average correlation between attitudes and behaviour was .34 in studies that used student samples; the correlation was .48 in studies with non-student samples. This difference might be attributable to the observation that university students tend to have less crystallized attitudes compared to older individuals (see Sears, 1986; Visser & Krosnick, 1998).

Models of attitude–behaviour relations

In addition to understanding *when* attitudes predict behaviour, social psychologists have developed a number of models to explain *how* attitudes predict behaviour. In this section of the chapter, we describe some of the most prominent models: Fishbein and Azjen's (1975) *theory of reasoned action* (as well as its extension), Fazio's (1990) *MODE model* and Eagly and Chaiken's (1993, 1998) *composite model*.

The theory of reasoned action and theory of planned behaviour As its name suggests, the *theory of reasoned action* is a model that was developed to predict deliberative (i.e., planned) behaviour. According to this model (see Figure 6.11), the immediate predictor (or determinant) of individuals' behaviour is their *intention*. Put simply, if you intend to

theory of reasoned action a model in which behaviour is predicted by behavioural intentions, which are determined by attitudes and subjective norms

Figure 6.11 *The theory of reasoned action.*

recycle glass bottles, you are likely to engage in this behaviour. Within the original conceptualization of the model, intentions were determined by two factors, attitudes and subjective norms. The *attitude* component refers to the individual's attitude towards the behaviour – whether the person thinks that performing the behaviour is good or bad. A person's attitude towards a behaviour (e.g., recycling glass) is a function of the expectancy that the behaviour will produce a desired consequence (helping the environment) *and* the value attached to this consequence (it is good to help the environment). According to the model, an individual's attitude is derived by multiplying the expectancy and value for each consequence and summing these values.
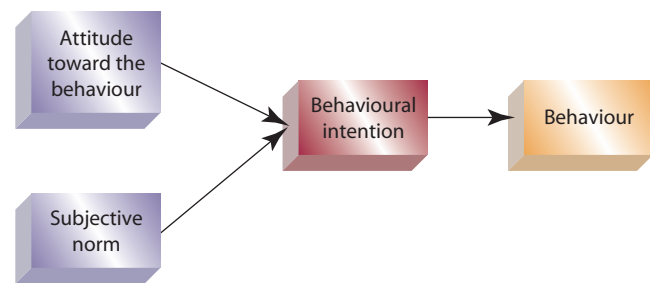
Subjective norms refer to an individual's beliefs about how significant others view the relevant behaviour. Like the attitude component, subjective norms are perceived to be derived from two factors that are multiplied and then summed. Specifically, the subjective norm component is a function of normative beliefs (how important others expect the individual to act) and the individual's motivation to comply with these expectations. Returning to our example, subjective norms will be high if your family and close friends have positive expectations towards recycling glass and you are motivated to comply with these expectations.

While the theory of reasoned action did a commendable job in predicting behaviour, it soon became clear that individuals' actions were also influenced by whether or not they felt they could perform the relevant behaviour. For example, if an individual wanted to change his dietary habits by eating a healthier diet, a positive attitude and positive subjective norms are unlikely to produce the desired behaviour change if he is unable to restrain himself from eating sweets, chocolates and fish and chips. As a result, the theory of reasoned action was revised to include the notion that behavioural prediction is affected by whether people believe that they can perform the relevant behaviour. This revision is captured by the concept of *perceived behavioural control*. The inclusion of this concept led Ajzen (1991; see also Ajzen & Madden, 1986) to name the revised model the *theory of planned behaviour*. According to this model (see Figure 6.12), perceived behavioural control is determined by control beliefs – individuals' perceptions about whether they possess the resources and opportunities required to perform the behaviour.

theory of planned behaviour an extension to the theory of reasoned action that includes the concept of perceived behavioural control
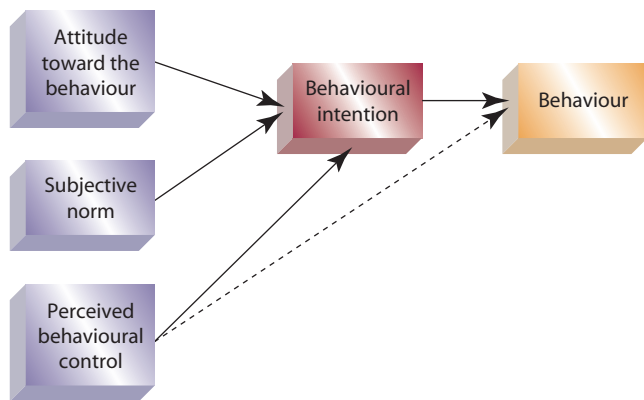
Figure 6.12 *The theory of planned behaviour.*

PIONEER

Icek Ajzen (b. 1942) completed his undergraduate degree at the Hebrew University of Jerusalem before pursuing a PhD at the University of Illinois (1969). It was here that Ajzen and Martin Fishbein developed the theory of reasoned action (TRA). This model led to many important developments regarding the relation between attitudes and behaviour. Ajzen extended the TRA by adding the concept of perceived behavioural control; this model is known as the theory of planned behaviour (TPB).

Perceived behavioural control influences behaviour in two ways. First, it is postulated to have a direct causal influence on behavioural intentions. This implies that an individual's intention to engage in a particular behaviour is affected by his or her perceived confidence in their ability to perform the action. Second, perceived behavioural control also has a direct effect on behaviour. This relationship is dependent upon actual control of the relevant action, that is, whether the behaviour can, in reality, be performed. Put simply, while individuals may believe that they can perform the relevant behaviour, their perception may not be accurate.

The theory of reasoned action and theory of planned behaviour are the most frequently tested models of attitude–behaviour relations. Overall, the predictions derived from the models have received strong empirical support. For example, a review by Albarracin, Johnson, Fishbein and Muellerleile (2001) compared the results of over 90 studies assessing whether the theories of reasoned action and planned behaviour do an effective job in predicting condom use. Consistent with the theory of reasoned action, behavioural intentions were predicted by both attitudes and subjective norms, while behavioural intentions predicted condom use. Consistent with the theory of planned behaviour, perceived behavioural control predicted behaviour independently of behavioural intentions. Similar findings supporting the models

have been found in reviews of other behavioural domains (see, e.g., Armitage & Conner, 2001).

One issue pertinent to the reasoned action/planned behaviour approach that has received considerable attention concerns *how* behavioural intentions are translated into behaviour. An important development relevant to this issue is the concept of *implementation intentions* (Gollwitzer, 1999). Implementation intentions are conceptualized as 'if–then' plans that specify a behaviour that one will need to perform in order to achieve a goal and the context in which the behaviour will occur (Sheeran, 2002). That is, implementation intentions take the form of mindsets in which an individual attempts to specify where and when a behaviour will be enacted, in the form of 'When I encounter the situational context A, I will perform behaviour B' (Gollwitzer & Brandstätter, 1997). For example, a student might say to himself, 'when I return from Easter holidays, I will start revising for my exams'. Numerous studies have demonstrated that forming an implementation intention increases the likelihood that an individual will perform a desired behaviour. In one study, Orbell, Hodgkins and Sheeran (1997) considered whether the formation of an implementation intention would increase the likelihood that women would perform breast self-examination (BSE). Participants in an intervention group were asked to indicate where and when they would perform BSE, whereas participants in a control group did not receive these instructions. The results of the study revealed that the formation of an implementation intention was effective in eliciting the desired behaviour. For example, one month after the intervention, 64 per cent of participants in the intervention group reported having performed BSE, compared to 14 per cent in the control group (see Sheeran, Milne, Webb & Gollwitzer, 2005, for a review of implementation intentions and health behaviours).

The MODE model Not all behaviour is deliberative and planned. Quite often we act spontaneously, without consciously thinking of what we intend to do. When our behaviour is spontaneous, the theory of planned behaviour may not provide a proper conceptualization of behavioural prediction (see Fazio, 1990). In an attempt to uncover how attitudes influence spontaneous behaviour, Fazio (1990) developed the *MODE model* of attitude–behaviour relations. MODE refers to *M*otivation and *O*pportunity as *DE*terminants of behaviour.

> **MODE model** a model of attitude–behaviour relations in which motivation and opportunity are necessary to make a deliberative consideration of available information

At a basic level, the MODE model suggests that, if individuals have *both* sufficient motivation and opportunity, they may base their behaviour on a deliberative consideration of the available information. However, when either the motivation or the opportunity to make a reasoned decision is low, only attitudes that are highly accessible will predict spontaneous behaviour. A number of studies by Fazio and colleagues have supported the MODE model (see, e.g., Sanbonmatsu & Fazio, 1990; Schuette & Fazio, 1995). For example, Sanbonmatsu and Fazio (1990) gave participants information about two department stores that included camera departments. Brown's store was described favourably, but its camera department was described negatively. In contrast,

Smith's store was described unfavourably, but its camera department was described positively. After a delay, participants were asked where they would shop for a camera. The results of the study indicated that participants were likely to base their decisions on the description of the camera department when they had received prior instructions asking them to form opinions of the stores *and* their camera departments. Participants were less likely to base their decisions on the description of the camera departments when the instructions encouraged them merely to form an opinion about the stores. More important, when the evaluations were not requested, the information about the camera departments was used *only* when participants were motivated to form an accurate decision and had abundant time to reach their decision.

The composite model The final model we wish to address is Eagly and Chaiken's (1993, 1998) composite model of attitude–behaviour relations. Like the theories of reasoned action and planned behaviour, the composite model suggests a link between attitudes, intentions and behaviour. The model proposes a number of factors that affect attitudes towards behaviours: habits (relevant past behaviour), attitudes towards targets (the target of the behaviour), utilitarian outcomes (rewards and punishments associated with performing the behaviour), normative outcomes (approval and disapproval from others that might occur from performing the behaviour) and self-identity outcomes (how performing the behaviour might influence the self-concept). Eagly and Chaiken suggested that some of these factors can affect either intentions or behaviour directly. The inclusion of habits is a particularly noteworthy aspect of Eagly and Chaiken's model, as many researchers have suggested that past behaviours are effective in predicting future behaviour (see Aarts, Verplanken & van Knippenberg, 1998; Ouellette & Wood, 1998).

SUMMARY AND CONCLUSIONS

- Expressing an attitude involves making an evaluative judgement about an attitude object.

- Attitudes have affective, cognitive and behavioural components. All three components contribute to overall attitudes.

- Positive and negative elements of attitudes contribute to how they are structured and organized.

- Attitudes can serve a number of psychological functions or needs. People hold attitudes for a number of reasons.

- Attitudes differ in their strength. These differences have important consequences.

- Attitudes can be measured in a number of ways. It is important to distinguish between direct (explicit) and indirect (implicit) measures of attitude.

- Attitudes are relatively effective in predicting behaviour.

- While numerous advances have been made regarding attitudes, many issues remain to be studied, including how and where attitudes are represented within the structure of the brain (e.g., via neuropsychological techniques such as fMRI), whether implicit and explicit measures of attitude are more or less effective in predicting spontaneous vs. deliberative behaviours, and the degree to which attitudes are conscious vs. unconscious.

SUMMARY

On the whole, attitudes do a reasonable job of predicting behaviour. The degree to which attitudes predict behaviour depends upon factors such as the level of correspondence across measures, the domain of behaviour, attitude strength and personality factors. The theory of reasoned action and its extension, the theory of planned behaviour, have received strong support as models for predicting deliberate behaviour. The MODE model suggests that motivation and opportunity are necessary to make a deliberative consideration of available information. The composite model proposes a number of variables that affect the attitude–behaviour relation.

Suggestions for further reading

Eagly, A.H. & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt Brace Jovanovich. This volume provides a comprehensive review of all aspects of research on the psychology of attitudes.

Fazio, R.H. & Olson, M.A. (2003). Implicit measures in social cognition research: Their meaning and use. *Annual Review of Psychology*, *54*, 297–327. This paper reviews advances that have been made concerning implicit measures of attitude.

Fazio, R.H. & Petty, R.E. (Eds.) (2007). *Attitudes*. Vol. 1: *Structure, function, and consequences*. Hove: Psychology Press. This volume comprises a collection of important published papers on attitude structure, attitude content and the attitude–behaviour relation.

Haddock, G. & Maio, G.R. (Eds.) (2004). *Contemporary perspectives on the psychology of attitudes*. Hove: Psychology Press. This volume reviews a number of contemporary research programs on the psychology of attitudes.

Maio, G.R. & Olson, J.M. (Eds.) (2000). *Why we evaluate: Functions of attitudes*. Mahwah, NJ: Lawrence Erlbaum. This volume is a comprehensive examination of research on attitude functions.