# THE PSYCHOLOGY OF ATTITUDES & ATTITUDE CHANGE

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# 4

# HOW DO ATTITUDES INFLUENCE BEHAVIOR?

## QUESTIONS TO PONDER

1. How do attitudes predict deliberative behavior?
2. How do attitudes predict spontaneous behavior?
3. What are habits and how do they influence behavior?
4. Do we need attitudes if we have habits?

## PREVIEW

In the previous chapter, we explored the issue of *when* attitudes predict behavior. In addition to addressing when attitudes predict behavior, social psychologists have developed a number of models to explain *how* attitudes predict behavior. In this chapter, we introduce what we perceive to be the most prominent models of attitude–behavior relations: Fishbein and Azjen's (1975) Theory of Reasoned Action, its extension, the Theory of Planned Behavior (Ajzen, 1991), Fazio's (1990) MODE Model, and Eagly and Chaiken's (1993, 1998) Composite Model. For each model, we describe the basic tenets of the model and highlight research that has tested it. A lot of this research has focused on trying to predict diverse behaviors that are notoriously difficult to change or controversial in some way (e.g., using condoms to prevent the spread of sexually transmitted disease), which testifies to the importance of this research topic.

## THE THEORY OF REASONED ACTION AND THE THEORY OF PLANNED BEHAVIOR

As its name suggests, the Theory of Reasoned Action was developed to predict reasoned, deliberative (i.e., planned) behavior. According to this model (see Figure 4.1), the immediate predictor

(or determinant) of individuals' behavior is their *intention*. An intention represents a motivation to act. Put simply, the idea is that if, for example, you intend to recycle empty bottles, you are likely to engage in this behavior. 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 toward the behavior – whether the person thinks that performing the behavior is good or bad. *Subjective norms* refer to the perceived social pressure to perform or not perform the behavior. To continue our example, we should be more likely to intend to recycle empty bottles if we think it is good to recycle them and we feel that this would help us get along with people who are important to us.

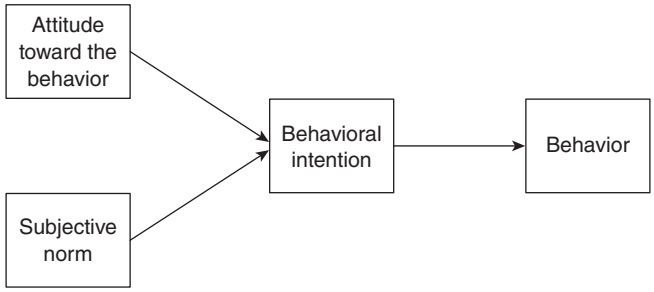


**Figure 4.1** The Theory of Reasoned Action

The Theory of Reasoned Action proposes that attitudes are shaped by the person's *expectancy* that the behavior will produce a desired consequence (e.g., recycling empty bottles helps the environment) and the *value* attached to this consequence (e.g., it is good to help the environment). Consequently, if we are asking participants about their attitude to recycling empty bottles, we might ask people to rate their agreement with different statements describing potential effects of recycling. The examples below focus on consequences for waste reduction:

Recycling reduces waste.

| Disagree Strongly | | | Neither | | | Agree Strongly |
|---|---|---|---|---|---|---|
| –3 | –2 | –1 | 0 | +1 | +2 | +3 |

It is good to reduce waste.

| Disagree Strongly | | | Neither | | | Agree Strongly |
|---|---|---|---|---|---|---|
| –3 | –2 | –1 | 0 | +1 | +2 | +3 |

Similar items could be generated for other consequences, such as effects on personal time, energy consumption, and climate change. According to the model, an individual's attitude toward the behavior can be measured by multiplying the expectancy score by the value score for each consequence examined (e.g., reducing waste, saving energy), and summing these products across the consequences.

Like the attitude component, subjective norms are determined by two factors. Specifically, the subjective norm component is the product of *normative beliefs* about how people who are important to the individual expect him or her to act and the individual's motivation to comply with these expectations. Returning to our example, subjective norms will be favorable if family and close friends have positive expectations toward you recycling empty bottles and you are motivated to comply with their expectations. This would entail agreement with the items below:

People who are important to me would want me to recycle.

| Disagree Strongly | | | Neither | | | Agree Strongly |
|---|---|---|---|---|---|---|
| –3 | –2 | –1 | 0 | +1 | +2 | +3 |

Generally speaking, I want to do what the people who are most important to me want me to do.

| Disagree Strongly | | | Neither | | | Agree Strongly |
|---|---|---|---|---|---|---|
| –3 | –2 | –1 | 0 | +1 | +2 | +3 |

Using these items, subjective norms can be measured by multiplying the belief scores by the motivation scores.

Researchers have tended to adopt a slightly simpler approach in practice. Dozens of studies have used simpler measures of attitude, like the semantic differential scales described in Chapter 1, and they often do not ask about motivation to comply with others. Also, studies have utilized primarily explicit measures, although implicit measures of attitudes as well as norms are now available (Yoshida, Peach, Zanna, & Spencer, 2012). Despite these simplifications, the measures of attitudes and norms often do a commendable job in predicting intentions and behavior.

Notwithstanding this success, it became clear to Ajzen (1991) that actions are also influenced by whether or not people feel they *can* perform the relevant behavior. Returning to our empty bottles, even if we have a positive attitude and positive subjective norms toward recycling empty bottles, we might feel that it is difficult to do if there is no recycling facility near our house, or we don't exactly know what to put in which bin. These beliefs undermine

a sense of self-efficacy, which is the "conviction that one can successfully execute the behavior required to produce the (desired) outcomes" (see Bandura, 1977, p. 193). In light of how these types of self-efficacy factors can influence our actions, the Theory of Reasoned Action was revised to include the idea that behavioral prediction is influenced by whether people believe that they can perform the relevant behavior. This revision is captured by the concept of *perceived behavioral control* – individuals' perceptions about whether they possess the resources and opportunities required to perform the behavior. The inclusion of this concept led Ajzen (1991; see also Ajzen & Madden, 1986) to name the revised model the *Theory of Planned Behavior*.

Similar to the measurement of attitude and subjective norm, perceived behavioral control can be measured by assessing specific beliefs about barriers or difficulties in performing the behavior, weighted by the extent to which these would prevent the behavior from being performed (power of control). Taking our recycling example further, one may thus ask:

I am often in doubt how to dispose of a piece of rubbish.

| Disagree Strongly | | | Neither | | | Agree Strongly |
|---|---|---|---|---|---|---|
| –3 | –2 | –1 | 0 | +1 | +2 | +3 |

If I am in doubt how to dispose of a piece of rubbish, I would find it very difficult to make the correct recycling decision.

| Disagree Strongly | | | Neither | | | Agree Strongly |
|---|---|---|---|---|---|---|
| –3 | –2 | –1 | 0 | +1 | +2 | +3 |

As is the case with the attitudinal and subjective norm components, an assessment of perceived behavioral control can be obtained by multiplying each control belief and its accompanying power of control and adding up these composites.

As shown in Figure 4.2, the Theory of Planned Behavior suggests that perceived behavioral control influences behavior in two ways. First, it has a direct effect on behavioral intentions: individuals' intention to engage in a particular behavior is affected by their confidence in their ability to perform the action. Second, perceived behavioral control has a direct effect on behavior. This effect depends on actual control of the relevant action; that is, whether the behavior can, in reality, be performed. Put simply, while people may believe that they can perform the relevant behavior, their perception may not be accurate. As a result, perceived behavioral control might not predict their behavior. Overall, adding a measure of perceived behavioral control should lead to a better ability to predict behavior than by only considering variables from the Theory of Reasoned Action.

An example of a questionnaire measuring the full Theory of Planned Behavior can be found at: http://people.umass.edu/aizen/pdf/tpb.questionnaire.pdf.

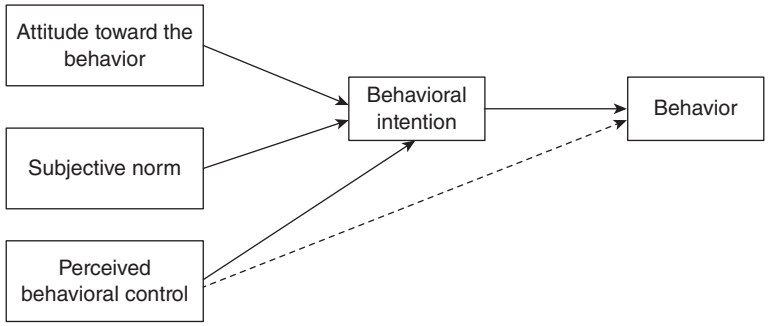


**Figure 4.2** The Theory of Planned Behavior

The Theory of Reasoned Action and Theory of Planned Behavior are the most frequently tested models of attitude–behavior relations. The predictions derived from the models have received strong empirical support. For example, a meta-analysis by Dolores Albarracín, Blair Johnson, Martin Fishbein, and Paige Muellerleile (2001) reviewed the results of studies assessing whether the Theory of Reasoned Action does an effective job in predicting condom use. Averaging across 96 studies, future condom use behavior was significantly related to behavioral intentions to use condoms ($r = 0.45$). People who reported that they intended to use condoms were more likely to use condoms in the future. Consistent with the model, behavioral intentions were predicted by both attitudes toward condom use ($r = 0.58$) and subjective norms about condom use ($r = 0.39$). If people held positive attitudes toward using condoms and felt that significant others viewed condom use as positive, they were more likely to intend to use condoms. Further, attitudes toward condom use were predicted by behavioral beliefs ($r = 0.56$), and subjective norms were predicted by normative beliefs ($r = 0.46$). Thus, the variables from the Theory of Reasoned Action showed the expected pattern of relations.

The Theory of Reasoned Action and Theory of Planned Behavior have been supported by reviews of research in other domains. For example, Chris Armitage and Mark Conner (2001) conducted a meta-analysis based on 185 studies that tested all or parts of the Theory of Planned Behavior in domains such as encouraging people to stop smoking, increasing the prevalence of blood donation, and getting people to take public transportation to work. Averaging across these studies, Armitage and Conner (2001) found strong support for the Theory of Planned Behavior. Basically, the results of these types of meta-analyses provide strong evidence that the Theory of Reasoned Action and Theory of Planned Behavior are effective in predicting "thoughtful" behavior.

**KEY POINTS**

- The Theories of Planned Behavior and Reasoned Action both indicate that attitudes are one of several psychological variables (e.g., subjective norms, perceived behavioral control) that shape behavior.
- The Theories of Planned Behavior and Reasoned Action both propose that the effects of attitudes on behavior are indirect: attitudes shape intentions to act, which in turn determine behavior.
- Numerous studies have obtained correlations supporting the Theories of Planned Behavior and Reasoned Action.

## ISSUES RELEVANT TO THE REASONED ACTION FRAMEWORK

Researchers have considered a number of questions that stem from the Theory of Reasoned Action and Theory of Planned Behavior. Four questions are particularly interesting. First, the model posits that attitudes are influenced by expectancies about the outcomes of action. Are some types of expectancies more important than others? We will show that this question is directly relevant to two of our attitude witches.

Second, the model posits that behavioral intentions are predicted by attitudes and subjective norms. Is one of these two predictors more important than the other? Both of the meta-analyses we described earlier in this chapter suggest that behavioral intentions are better predicted by attitudes toward the behavior than by subjective norms. However, there may be instances when subjective norms are more important. We will review whether there are particular behaviors and situations where subjective norms are especially important in predicting behavioral intentions, and whether there are individuals for whom subjective norms tend to be the more important predictor of behavioral intentions.

Third, an important part of the model examines how behavioral intentions get translated into behavior. We can all think of times when we intended to do something but did not follow through and carry out the behavior. For instance, one of the authors intended to complete a big cycling trip in France for his 40th birthday. Sadly, and despite his best intentions and urgings from others, that birthday came and went without a cycling trip. He still hasn't made good on his intention years later. We review research that considers how to increase the likelihood that behavioral intentions get translated into actions (and that the trip will eventually happen!).

Fourth, the models' focus on "reasoned" action and "planned" behavior makes it important to wonder what happens when people think about their attitudes more carefully. If we think about our attitudes, should they become more in line with our primary beliefs and, hence, better predictors

of our intentions and action? We will describe evidence showing that the effect of thinking about attitudes is more complex than this.

## Are some types of beliefs more important than others?

This question is relevant to Fishbein and Ajzen's (1975) argument that behavior can be changed by identifying the *salient beliefs* that are major determinants of that behavior. People can hold many beliefs about a given object, but they usually can think about only a small number at any given time. The salient beliefs are those that are easy to recall and link to the behavior. Fishbein and Ajzen (1975) suggested that these salient, easy-to-remember beliefs are the fundamental determinants of people's attitudes and behavioral intentions. To identify our salient beliefs for eating fruit, for example, the researchers would ask us to list all the advantages and disadvantages of eating fruit. They might also ask us to describe what people who are important to us would think about us eating fruit and to list the factors or circumstances that might make it easier (or more difficult) for us to do so.

It turns out that it may be useful to further subgroup these beliefs (Conner & Norman, 2005). Two potentially important dimensions are the extent to which they refer to positive versus negative outcomes and the extent to which they refer to instrumental versus emotional outcomes. The first dimension is similar to our distinction between positive and negative valence in attitude structure, and the second dimension is similar to our distinction between cognition and emotion in attitudes.

To be more specific, the first dimension distinguishes between outcomes that are liked (e.g., increased health from eating fruit) from those that are disliked (e.g., variable quality of taste). These beliefs about positive and negative outcomes may have distinct effects on behavior (Conner & Sparks, 2002). For example, Rebecca Lawton, Mark Conner, and Diane Parker (2007) found that beliefs about negative outcomes were most important in predicting speeding behavior, but beliefs about positive outcomes were most important in predicting the initiation of smoking.

The second dimension distinguishes between material costs and benefits to the self and consequences of an action for feelings and well-being. For example, instrumental outcomes for eating fruit may include better energy levels, easier weight control, and cardiovascular health; emotional outcomes could include feelings of pride and vitality. A large number of experiments support the distinction between *instrumental beliefs* and *emotional beliefs* (e.g., Crites et al., 1994; Trafimow & Sheeran, 1998; van der Pligt, Zeelenberg, van Dijk, de Vries, & Richard, 1998). This distinction is particularly important for understanding risky behaviors, which frequently conflict with relevant outcome cognitions (Loewenstein, Weber, Hsee, & Welch, 2001). People often know the risks of dangerous behaviors and think the risks are bad, but still perform the behaviors. For instance, people know that skiing is dangerous, but the thrills compel us to ignore the dangers of the spills. According to the "risk as feelings" hypothesis (Loewenstein et al., 2001), emotional reactions often drive behavior when cognitive and emotional reactions conflict (see also Lavine et al., 1998).

## Are there times when attitudes or subjective norms are most important in predicting behavioral intentions?

Usually, behavioral intentions are better predicted by attitudes than by subjective norms. Research has examined relevant differences between people and situations in determining whether attitudes or subjective norms are better predictors of intentions. It turns out that there are differences in the extent to which people and situations emphasize either personal or collective beliefs.

The idea that people differ in the degree that their behavioral intentions are influenced by attitudes and subjective norms was tested by David Trafimow and Kristina Finlay (1996). In their research, university students completed measures of attitudes, subjective norms, and behavioral intentions for 30 behaviors, which ranged from eating vegetables regularly to paying bills on time. When looking separately at each of the behaviors, Trafimow and Finlay (1996) found that, overall, behavioral intentions were better predicted by people's attitudes than by their subjective norms. Subjective norms were more important than attitudes for only one of the 30 behaviors – going into debt on one's credit cards (something familiar to many students!). That said, for most of the 30 behaviors, subjective norms uniquely predicted people's behavioral intentions after their attitudes had been taken into account. This means that subjective norms do predict behavioral intentions separately from attitudes, but not as much as attitudes.

More importantly, because Trafimow and Finlay (1996) collected measures of attitudes, subjective norms, and intentions from every participant for 30 different behaviors, these scientists could also consider whether *every* respondent's personal intentions were better predicted by their attitudes or subjective norms. For each participant, Trafimow and Finlay calculated the correlations among the respondent's own reported attitudes, subjective norms, and behavioral intentions. These analyses found that, when looking across their respondents, about 80% of people had intentions that were better predicted by their attitudes than by their subjective norms. Of course, this means that about 20% of the participants reported intentions that were more closely related to their subjective norms than their attitudes.

It is interesting to think about why some people's behavioral intentions are more strongly related to their attitudes, whereas others' intentions are more strongly related to their subjective norms. Is an individual's cultural background important? Are normative people more conformist in nature? Do they tend to have weaker attitudes? Are they more likely to be aware of the views of others? To start addressing these types of questions, Oscar Ybarra and David Trafimow (1998) explored whether making people think about *private-self cognitions* versus *collective-self cognitions* would influence how attitudes and subjective norms predict behavioral intentions. Private-self cognitions refer to an individual's self-assessment, while collective-self cognitions refer to how the individual feels judged by others. An example of a private-self cognition would be the belief "I am funny." In contrast, an example of a collective-self cognition would be the belief "My family thinks that I am funny." Research has found that people from individualistic cultures (e.g., the United States) can retrieve more private-self beliefs than collective-self beliefs, whereas individuals from collectivist cultures (e.g., China) can retrieve more collective-self beliefs than private-self beliefs (see Trafimow, Triandis, & Goto, 1991; Triandis, 1989).

Ybarra and Trafimow (1998) tested two predictions based on the distinction between private- and collective-self beliefs. First, they tested whether making salient a person's private self would also make their personal attitudes toward a behavior more salient, causing their attitudes to have a greater impact than subjective norms in forming behavioral intentions. Second, they tested whether making salient a person's collective self would make their subjective norms more salient, causing subjective norms to have a greater impact than attitudes in forming behavioral intentions. To test these hypotheses, Ybarra and Trafimow (1998, Study 2) asked one group of participants to think about themselves, their expectations, and how they were different from their family and friends, while another group of participants was asked to think about what they have in common with their family and friends and what these people expect from them. As you might have already guessed, the first manipulation was intended to make personal-self beliefs salient, whereas the second manipulation was designed to make collective-self beliefs salient. After completing this task, participants reported their attitudes, subjective norms, and behavioral intentions toward using a condom when having sex. The results showed that, among participants in the private-self belief priming condition, behavioral intentions were more highly correlated with (and better predicted by) attitudes ($r = 0.64$) than subjective norms ($r = 0.48$). In contrast, among participants in the collective-self belief priming condition, behavioral intentions were more highly correlated with (and better predicted by) subjective norms ($r = 0.67$) than attitudes ($r = 0.54$).

Taken together, the results of these studies have a number of important implications. First, they highlight the conditions under which subjective norms can become more important in predicting behavioral intentions. Second, the effect of this manipulation (making people think about private- vs. collective-self beliefs) fits the results of other experiments showing that different ways of thinking about ourselves affect the links between our attitudes and behavior. Third, they are relevant to understanding potential differences in the role of attitudes across cultures, which is a topic we explore further toward the end of the book.

**Function Witch:** Shouldn't the effect of the collective self be greater for attitudes that serve a social adjustment function, while the role of the individual self may be more prominent for attitudes serving other functions (e.g., instrumental, ego-defense)?

## How are behavioral intentions translated into behavior?

Our intentions don't always predict our behavior. Every single one of us has intended to do something that, for one reason or another, did not get done. There are many reasons why this might be the case. Sometimes, this can happen because we do not want to perform the intended behavior. Many people go to bed intending to exercise the next morning, but only because they feel they have to exercise and not because they want to exercise. This makes it all too easy to come up with something else to do instead (e.g., sleep longer, do the laundry). We may also be indecisive

about when to start executing an intention. For instance, we may be busy and think we will start exercising once we have a bit more time (which may never happen). An intention may also not materialize because we don't know how exactly to do it. We may have an intention to go to the gym but remain uncertain about the fitness machines and training schedules. At other times, we simply forget to perform the intended behavior. For instance, we may forget to exercise because of distractions (phone calls, kids arguing). The question of how to increase the link between intentions and behavior has received considerable attention in the social psychological literature (e.g., Sheeran & Webb, 2016).

Perhaps the most important development in this area is the concept of *implementation intentions* (Gollwitzer, 1999). At a basic level, implementation intentions are like "if–then" plans that specify behaviors that a person will need to perform in order to achieve a goal (Sheeran, 2002). In other words, implementation intentions take the form of mindsets that focus an individual on specifying where, when, and how a behavior will be enacted. These may occur in the form of "When I encounter situation A, I will perform behavior B" (Gollwitzer & Brandstätter, 1997). Think about an essay that you have to complete two weeks from now. In this case, an implementation intention might take the form of "When I return to university from my weekend at home, I will go straight to the library and start researching the essay topic."

Numerous studies have demonstrated that forming an implementation intention increases the likelihood that an individual will act on the intention. In one study, Sheina Orbell, Sarah Hodgkins, and Paschal Sheeran (1997) considered whether the formation of an implementation intention would increase the likelihood that women would perform breast self-examination (BSE) to help detect tumors in early stages. In Orbell et al.'s study, women randomly assigned to an intervention group were asked to indicate where and when they would perform BSE. Participants read these instructions:

> You are more likely to carry out your intention to perform BSE if you make a decision about where and when you will do so. Many women find it most convenient to perform BSE at the start of the morning or last thing at night, in the shower or bath, or while they are getting dressed in their bedroom or bathroom. Others like to do it in bed before they go to sleep or prior to getting up. Decide now where and when you will perform BSE in the next month and make a commitment to do so.

Following this instruction, participants in this intervention condition were asked to write down where and when they would perform BSE. Women randomly assigned to the control group were not given any instructions about implementation intentions. Orbell et al. (1997) predicted that women in the implementation intention condition would be less likely to report forgetting to perform BSE and more likely to perform it.

The results of the study revealed that the formation of an implementation intention was effective. Indeed, one month after the intervention, 64% of participants in the intervention group reported having performed BSE compared to just 14% in the control group. The implementation intention instructions had a huge effect on behavior.

The positive effects of implementation intentions have since been documented for many types of health behaviors (see Sheeran, Milne, Webb, & Gollwitzer, 2005, for a review),

ranging from healthy eating to participation in cancer screening and psychotherapy. Effects have been found outside of the health context as well. For example, in a sample of more than 287,000 individuals during the 2008 American presidential election, one compelling field experiment found that facilitating implementation intentions helped to increase voter turnout by 4% (Nickerson & Rogers, 2010). Further, a meta-analysis by Gollwitzer and Sheeran (2006) provides strong evidence highlighting the role that implementation intentions can play in enacting behavioral intentions. Across almost 100 studies, they found that forming an implementation intention was very effective in making it more likely for an individual to enact a behavior they intended to perform.

These findings suggest that implementation intentions can serve as useful tools for helping people do as they intend. What is particularly elegant about this approach is its simplicity – it is not that hard to form an implementation intention. Just specify when, where, and how you are going to do something (even when it is something you really do not want to do), and chances are you are more likely to follow through on your intentions. At the same time, forming implementation intentions frees up cognitive capacity for other, different tasks, because goal performance has been placed under automatic control (Masicampo & Baumeister, 2011).

But this does not mean that forming *many* implementation intentions works. It is human nature to think that, when we can do something that is useful and easy, it is good to do lots of it. However, Aukje Verhoeven and colleagues (Verhoeven, Adriaanse, de Ridder, de Vet, & Fennis, 2013) found that forming a single implementation for a single goal (unhealthy snacking) was more effective than forming multiple implementation intentions. Multiple plans were less effective because they elicited different ways to fulfill the intention, rather than allow memory to powerfully focus on one behavior that could be automatically elicited.

Incidentally, the power of implementation intentions as a self-regulatory tool is not only confined to accomplishing behavioral goals; it has also been found to be effective in regulating emotions. Emotion regulation is extremely important for our own and others' well-being. It may take many forms, such as down-regulating negative emotions (e.g., fear, anger) or up-regulating positive emotions (e.g., excitement, joy). Thomas Webb, Inge Schweiger Gallo, Eleanor Miles, Peter Gollwitzer, and Paschal Sheeran (2012) provided meta-analytic evidence that forming implementation intentions is an effective way to successfully self-regulate emotions. This holds for the various aspects of self-regulation, such as recognizing the need to self-regulate as well as when and how to accomplish this, and the actual enactment of the strategy.

## Variables other than attitude, subjective norms, perceived behavioral control, and intentions

If the Theory of Planned Behavior is truly complete, we should not be able to find other variables that predict behavior intentions or behavior *independently* of attitude, subjective norms, and perceived behavioral control. For example, we might believe that beliefs about

the moral correctness of an action is important for whether people will perform the action, but the perceived morality of behavior is not explicitly included in the Theory of Planned Behavior. The Theory of Planned Behavior would suggest that, if moral beliefs do have any effect at all, these effects occur because the moral beliefs influence the attitudes, norms, or perceived behavioral control. Thus, if the Theory of Planned Behavior is correct, moral beliefs should *not* help us to predict a behavior after our analyses take attitudes, norms, and behavioral control into account.

The problem is that moral beliefs do help to predict behavior after analyses control for attitudes, norms, and perceived behavioral control (Conner, Lawton, Parker, Chorlton, Manstead, & Stradling, 2007; Maio & Olson, 1995a). Effects of attitudes on behavior are determined at least in part by moral considerations, though it is not yet clear whether this conclusion is better supported for some types of behavior (e.g., interpersonal behaviors) than for others (Godin, Conner, & Sheeran, 2005; Maio & Olson, 2000a, 2000b; Sparks & Manstead, 2006).

The problem is exacerbated by evidence that other variables also contribute uniquely to the prediction of intentions and behavior, above and beyond attitudes, norms, and perceived behavioral control. These additional variables include the personal need for satisfaction (Hagger, Chatzisarantis, & Harris, 2006), anticipated negative self-conscious emotion (Hynie, MacDonald, & Marques, 2006), and individual differences in *self-efficacy* (i.e., beliefs that one is capable of action; Manstead & van Eekelen, 1998). Thus, although the variables in the Theory of Planned Behavior are important (Armitage & Conner, 2001), it is clear that they are not enough for explaining behavior.

## The effects of thinking about reasons behind our attitude

Imagine that a friend sends you a web link to a charity running a survey on attitudes to helping the homeless. At your friend's urging, you complete the survey, which asks you to indicate your opinion toward helping the homeless and to write down reasons why you feel the way you do. A few months later, you encounter a homeless individual asking whether you could spare some change. Will having thought about the reasons behind your attitude change your attitude in some way, with consequences for your later behavior?

A fascinating line of research by Timothy Wilson and his colleagues has found that analyzing reasons for attitudes actually can cause attitude change, particularly when people lack knowledge about the attitude object and not when people possess a lot of knowledge about the attitude object (Wilson, Dunn, Kraft, & Lisle, 1989; Wilson, Kraft, & Dunn, 1989; see also Wilson, Lisle, Schooler, Hodges, Klaaren, & LaFleur, 1993). According to Wilson and colleagues, individuals who lack cognitive support for an attitude tend to randomly access a subset of their most accessible and easy to verbalize reasons when they are asked about their reasons, and these reasons often imply a slightly more unfavorable or favorable view than the person normally expresses. This random access occurs because these individuals do not know exactly *why* they feel the way

that they do – their attitudes are not strongly associated (in memory) with a set of reasons. Thus, these individuals access reasons that are temporarily accessible and possibly not consistent with their original attitude.

So how well does a person's new, post-reasons attitude predict his or her behavior? Several studies have found that analyzing reasons for an attitude caused lower subsequent attitude–behavior correlations (Wilson, Dunn et al., 1989). Other research found that analyzing reasons for an attitude caused lower subsequent attitude–behavior correlations when the attitude-relevant behaviors were affectively based than when the behaviors were cognitively based (Millar & Tesser, 1986; see also Maio & Olson, 1998a). Presumably, people who analyzed their reasons expressed subsequent attitudes that were based on their cognitions about the attitude object. If, in contrast, the attitude-relevant behavior was based on individuals' feelings about the attitude object, then the mismatch between the basis for the behavior and the basis for the post-reasons-analysis attitude produced low attitude–behavior correspondence. Thus, consistency between the basis for attitudes and behaviors appears to be an important determinant of the extent to which attitudes predict behavior.

According to Wilson, Dunn et al. (1989), analyzing reasons causes participants to access momentarily verbalizable reasons that influence their attitude immediately after reasons analysis, but the influence of these reasons eventually decays, thereby returning the attitude and subsequent attitude-relevant behavior to their original, affective bases. Consequently, the immediate post-reasons-analysis attitude is often incongruent with the later behavior. Consistent with this reasoning, post-reasons-analysis attitudes are less incongruent with subsequent behavior when there is a short interval before the measurement of behavior than when there is a long delay (Wilson, Dunn et al., 1989). In addition, analyzing reasons for an attitude increases subsequent attitude–behavior correlations when the instrumental attributes of the attitude object are reconsidered prior to target behavior (Millar & Tesser, 1986; Wilson, Dunn et al., 1989).

## KEY POINTS

- Negative emotional beliefs may have a stronger impact on intentions than positive non-emotional beliefs.
- Relative to the influence of subjective norms, the influence of attitudes may be lower when people's collective self is salient than when their private self is salient.
- Getting people to form detailed plans about when and how they will execute behaviors can increase the likelihood of performing the behavior.
- Although the Theory of Planned Behavior is useful for predicting behavior, its utility can be further improved by considering other predictor variables (e.g., moral beliefs, emotion) and deliberative processes (e.g., effects of thinking about reasons for attitudes).

## THE "MODE" MODEL

We don't always think carefully about our actions. In many situations we think and act spontaneously, without really thinking of what we intend to do. These spontaneous actions can even contradict our intentions, leaving us at a loss to explain our behavior. As a result, the Theory of Planned Behavior may not provide the most appropriate framework for understanding and predicting spontaneous behavior. In an attempt to uncover how attitudes influence deliberative *and* spontaneous information processing, Russell Fazio (1990) developed the MODE Model of attitude–behavior relations.

MODE refers to *M*otivation and *O*pportunity as *DE*terminants of behavior. The MODE Model is best characterized as a dual-process model, in that it specifies two different ways in which attitudes can influence behavior. The MODE Model is represented in Figure 4.3. The model suggests that, if individuals have *both* sufficient motivation and opportunity, they may base their behavior on a deliberative consideration of their attitudes and other available information. However, when either the motivation or the opportunity to make a reasoned decision is low, individuals enter a spontaneous mode of information processing. Under these circumstances, the model states that attitude accessibility is vital. When people have a highly accessible attitude, it becomes automatically activated and elicits behavior that is consistent with the attitude. Conversely, when the attitude is not accessible, it is not automatically activated and is therefore not likely to predict behavior.

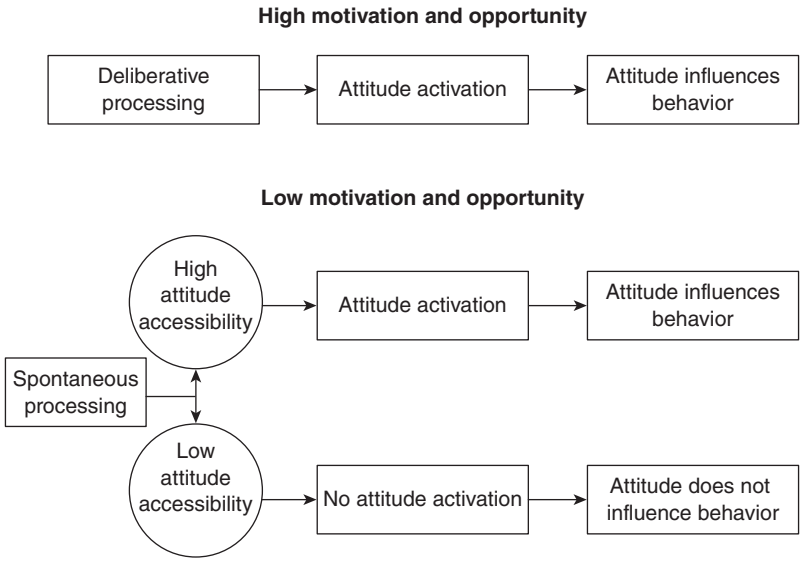


**Figure 4.3** The MODE Model

A number of studies by Fazio and colleagues have supported the MODE Model (e.g., Sanbonmatsu & Fazio, 1990; Schuette & Fazio, 1995). Most of these studies have focused on demonstrating the role of attitude accessibility in the spontaneous route, because this is the portion of the model that differs most from the focus of the Theories of Reasoned Action and Planned Behavior. An excellent example was a study conducted during the 1984 American presidential election. In Chapter 3, we described how Fazio and Williams (1986) measured participants' attitudes toward the incumbent United States President Ronald Reagan, as well as his opponent, Walter Mondale. Approximately five months later (and very soon after the election), Fazio and Williams measured whether their participants voted for Reagan or Mondale. We noted in Chapter 3 that the correlation between voters' initial attitude and their subsequent voting behavior was 0.78 for Reagan and 0.63 for Mondale. This is very impressive, particularly given the relatively long time-lag between the measures of attitude and behavior. What we did not say was that the large correlations were not the primary focus of this study. Fazio and Williams were interested in showing that the magnitude of the attitude–behavior relation depended on the *accessibility* of participants' initial attitude; that is, the ease with which the attitude can be retrieved from memory. Some participants had very accessible (i.e., strong) attitudes toward Reagan. These participants could report their attitudes very quickly. Other participants' attitudes were less accessible (i.e., weak); these participants could report their attitudes less quickly. Fazio and Williams (1986) found that the correlation between attitudes and behavior was significantly greater among those individuals whose attitude toward Reagan was highly accessible. Specifically, the correlation between attitudes toward Reagan and voting behavior was 0.89 among voters with highly accessible attitudes, compared to 0.66 among voters with less accessible attitudes toward Reagan.

So how does an attitude become accessible and what does this accessibility mean? As indicated in Chapter 1, Fazio (1990) suggested that attitudes become accessible when people have formed a strong association between their evaluation of an attitude object and their mental representation of the object. A general principle in psychology is that associations between any two concepts are strengthened by repeated pairing; thus, the strength of association between an attitude and the attitude object in memory should become stronger when people repeatedly perform behaviors that express the attitude. Consistent with this view, people become faster at reporting an attitude when they have previously been given many opportunities to express the attitude (e.g., on a rating scale) than when they have been given fewer opportunities to express it (Powell & Fazio, 1984).

**Structure Witch:** There is evidence that people are somewhat quicker to report attitudes when the attitudes are less ambivalent (Bargh, Chaiken, Govender, & Pratto, 1992). Does higher accessibility improve attitude–behavior correspondence even when attitudes remain ambivalent and therefore are more complex?

Research by Schuette and Fazio (1995) considers how attitude accessibility and motivation influence the extent to which people process information in a biased way. Schuette and Fazio

asked university students to evaluate two research studies on the effectiveness of the death penalty as a deterrent of crime. One study supported the idea that capital punishment is an effective deterrent; the second study reached the opposite conclusion. Before participants looked at the studies, Schuette and Fazio manipulated the accessibility of each participant's attitude toward the death penalty. Some participants expressed their attitude once (low accessibility), whereas others expressed their attitude six times (high accessibility). To manipulate motivation, some participants were told that their conclusions would be compared to those made by an expert panel. Participants in the low motivation condition did not receive this information.

The results revealed that the relation between individuals' prior attitude and their judgment about the study depended on both the accessibility of the participants' attitude and their level of motivation. Evaluations of the articles were consistent with participants' attitude when their attitude was highly accessible and their motivation was low ($r = 0.51$). In this case, their highly accessible attitude served as a cue that biased their perceptions. However, when participants were highly motivated, or when they had expressed their attitude only one time, attitudes were not correlated with evaluations of the studies (the correlations ranged from –0.06 to 0.18). In these conditions, being motivated can lead individuals to overcome the potential biases of their attitude, even if it is accessible. When not motivated, expressing an attitude just once does not make it sufficiently accessible for it to influence their perceptions.

Similar results can occur for implicit measures of attitude. Recall from Chapter 1 that implicit measures of attitude tap evaluations that spontaneously come to mind, without people reporting their attitudes in a conscious manner. In general, spontaneous evaluations may reflect attitudes that are highly accessible (Fazio, Sanbonmatsu, Powell, & Kardes, 1986; cf. Bargh et al., 1992). As a consequence, the MODE Model predicts that the spontaneous evaluations that are tapped by implicit measures should be stronger predictors of judgments and behavior when motivation to deliberate is low than when it is high. In one experiment supporting this hypothesis, Olson and Fazio (2004b) asked university undergraduates to complete a measure of their motivation to control prejudicial reactions and the evaluative priming measure of attitudes described in Chapter 1. Three to five weeks later, participants were shown pictures of Black individuals and White individuals, along with brief descriptions of them. The descriptions of the Black individuals and the White individuals were matched by gender, status, and type of occupation (e.g., a Black repair woman and a White painter). For each photo, participants had to rate the individual on a variety of traits (e.g., intelligent, likeable).

Analyses of these ratings revealed that they varied as a function of participants' motivation to control prejudice and their spontaneous attitudes. When participants were low in the motivation to control prejudice, those who possessed more negative spontaneous attitudes toward Blacks rated the Black individuals more negatively (relative to the White individuals). This effect is straightforward and is consistent with the previously described effects of accessible attitudes on judgment and behavior when motivation to deliberate is low. The story becomes more interesting when we consider the participants who were high in the motivation to control prejudice: those who possessed more negative spontaneous attitudes toward Blacks rated the Black individuals

more *positively* (relative to the White individuals). These participants appeared to override and overcompensate for their spontaneous negative attitudes in an effort to appear less prejudiced! In other words, participants' high motivation overrode the effect of participants' spontaneous attitudes, as the MODE Model predicts.

## RESEARCH HIGHLIGHT 4.1

### WHICH DEPARTMENT STORE TO VISIT?

One particularly ingenious study testing the MODE Model gave participants information about two department stores that included camera departments (Sanbonmatsu & Fazio, 1990). Brown's store was described favorably, but its camera department was described negatively. In contrast, Smith's store was described unfavorably, but its camera department was described positively. After a delay, participants were asked where they would shop for a camera. Sanbonmatsu and Fazio (1990) manipulated the conditions under which people made their choice. Some people were motivated to make a good decision, because they were told they would need to justify their choice. Other participants were not given this instruction. Opportunity was manipulated by forcing some people to make their decision under time pressure.

The results of the study indicated that participants were likely to base their decisions on the description of the camera department (that is, to buy a camera from Smith's) when they were *both* motivated and had the opportunity to make their decision without time pressure. Participants were less likely to base their decisions on the description of the camera departments when either (a) the instructions encouraged them merely to form an opinion about the stores (when they were less motivated) or (b) participants had to make their decision under time pressure (when they had limited opportunity).

The MODE Model has become tremendously important in research on attitudes. The model elegantly explains how both deliberative and spontaneous behaviors are influenced by attitudes. This breadth is attained by its focus on motivation and ability as determinants of processing strategy – a focus that is shared with leading models of how attitudes are shaped (see Chapter 5). Nonetheless, its most compelling and unique evidence has helped to understand the effects of attitudes on spontaneous behavior in particular. Across a variety of studies, it is clear that attitude accessibility plays an important role in understanding the effects of attitudes on spontaneous behavior (see Glasman & Albarracín, 2006). The model has been validated in a wide range of domains, including, for instance, racial prejudice (Kumar, Karabenick, & Burgoon, 2015; Phillips & Olson, 2014), speeding (Elliott, Lee, Robertson, & Innes, 2015), media influence (Ewoldsen, Rhodes, & Fazio, 2015), and law enforcement (Zabel, Zabel, Olson, & Carlson, 2016).

**KEY POINTS**

- The MODE Model suggests that attitudes can influence behavior through either a spontaneous or deliberate route.
- In the spontaneous route, the strength of association between people's mental representations of the attitude object and their evaluation of it determines the likelihood that the attitude will influence judgments and behavior.

# THE COMPOSITE ATTITUDE–BEHAVIOR MODEL

The final model we wish to address is Alice Eagly and Shelly Chaiken's (1993, 1998) Composite Model of attitude–behavior relations. Like the Theories of Reasoned Action and Planned Behavior, the Composite Model suggests a link between attitudes, intentions, and behavior. As can be seen in Figure 4.4, the model proposes a number of factors that affect attitudes toward behaviors: *habits* (automatic responses based on past behaviors), *attitudes toward targets* (the target of the behavior), *utilitarian outcomes* (rewards and punishments associated with performing the behavior), *normative outcomes* (approval and disapproval from others that might occur from performing the behavior), and *self-identity outcomes* (how performing the behavior might influence the self-concept). Eagly and Chaiken suggest that some of these factors can affect intentions or directly affect behavior.

To date, relatively little research has tested the complete Composite Model. However, the model is well known among scientists who study attitudes, and we believe that it is important to mention the model because it explicitly highlights the role that *habits* can play in determining behavior. As such, we want to devote attention to recent research that has tested how habits influence behavior. Readers interested in a more complete treatment of the model (and especially its treatment of different types of outcomes) should read Eagly and Chaiken's (1993) comprehensive text.

## What are habits?

The inclusion of *habits* is an important aspect of Eagly and Chaiken's framework. Many researchers have suggested that habits should be effective in predicting future behavior. From a social psychological perspective, habits are more than just behaviors that we have performed frequently. Of greater relevance is the idea that habitual behaviors are *automatic*, in the sense that they can occur without conscious awareness and monitoring and are difficult to control (see Verplanken, 2006; Verplanken & Orbell, 2003). Consistent with that view, Bas Verplanken and Henk Aarts (1999, p. 104) defined habits as "learned sequences of acts that have become automatic responses to specific cues, and are functional in obtaining certain goals or end states" (see also Wood, 2017;

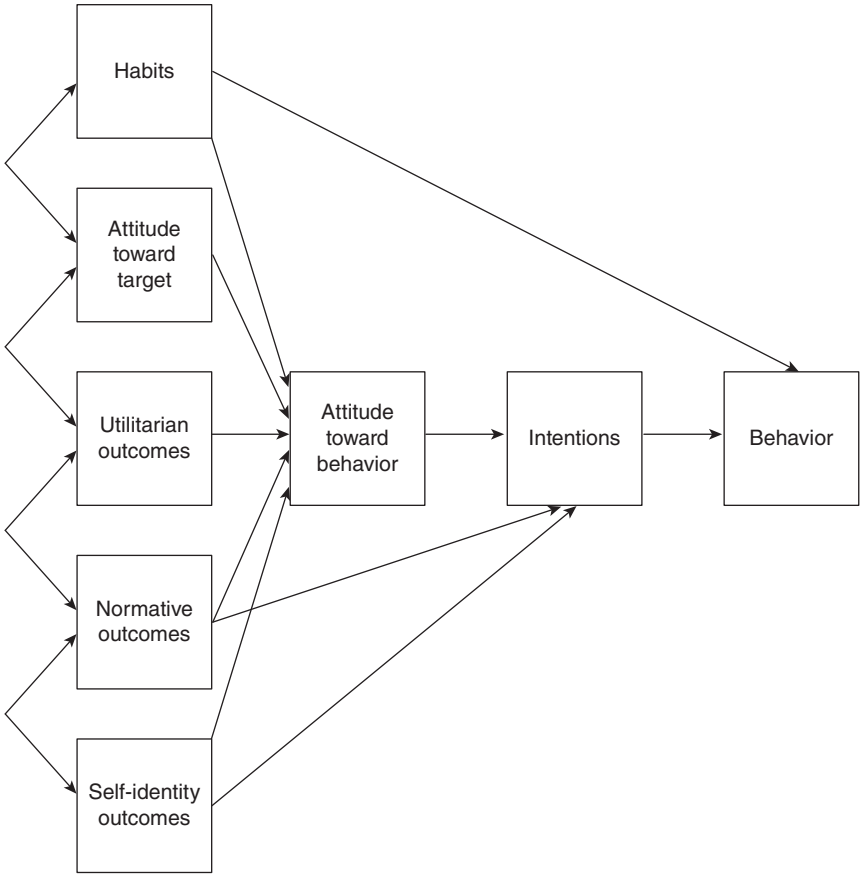


**Figure 4.4** The Composite Model of attitude–behavior relations

Wood & Neal, 2007; Wood & Rünger, 2016). These qualities make habits particularly impactful on behavior when willpower (i.e., our ability to control our behavior) is low (Neal, Wood, & Drolet, 2013).

## How do habits influence behavior?

Habits are memory-based propensities to respond automatically to specific cues, which are acquired by the repetition of cue-specific behaviors in stable contexts (Verplanken, 2018). Cues can be anything, but are often the time, place, or people that define the situation. These cue–response links are ingrained in our thoughts and are activated by the performance context (e.g., Orbell & Verplanken, 2010; Wood & Neal, 2007; Wood & Rünger, 2016). Building upon

this idea, many studies have demonstrated that habits can play an important role in predicting future behavior. For example, a field experiment in the Netherlands assessed the degree to which habits and variables from the Theory of Planned Behavior predicted travel behavior (Verplanken, Aarts, van Knippenberg, & Moonen, 1998). The travel behavior included decisions about whether to take a bicycle, bus, car, or train to work. At the start of the study, participants completed measures of habit strength (e.g., frequency of past behavior), attitudes, subjective norms, and behavioral intentions about their travel choice. For the next week, participants kept a diary that recorded how often they drove their car and used other forms of transport. The results revealed that habits were highly predictive of behavior, even predicting behavior after behavioral intentions and perceived behavioral control were taken into account. Further, the study found that behavioral intentions were uniquely predictive of behavior only when participants' habits were weak. When habits were strong, they were enough to be the main predictor of future behavior.

Similarly, in a meta-analytic review of the literature, Judith Ouellette and Wendy Wood (1998) found that the role of habits in predicting future behavior depends upon the stability of the context in which the behavior is performed. These scientists found that behaviors that occur repeatedly in a stable context (e.g., wearing seat belts) are likely to be re-enacted when individuals face that situation in the future. Furthermore, this role of habits was presumably spontaneous, because a large component of this effect was independent of effects of reported intentions on behavior. In contrast, unstable contexts (e.g., using a condom when having sex with a new partner) prevented habits from exerting a powerful role in predicting behavior (see also Albarracín et al., 2001), and the effects of habits in these contexts were more strongly related to the simultaneous influence of intentions. Thus, when habits have formed, behavior is driven by the behavioral context rather than by intention or "willpower." This realization is important as it has consequences for how behavior might be changed, which is a topic we turn to in the final section.

## RESEARCH HIGHLIGHT 4.2

### YOU'RE A HARD HABIT TO BREAK: GETTING RID OF UNWANTED HABITS

Don't we all have some habit that we would like to eliminate? For example, many smokers consider their own smoking as a bad habit they would like to break. While none of the authors is a smoker, one of them has a bad habit of reaching for a small bag of potato snacks (chips or crisps) instead of a piece of fruit when craving a late-night snack; another author habitually slouches; the third finds it hard to resist the pre-dinner old single malt scotch. The common-sense view on how we might break these habits is to exert willpower, or, in the now more familiar social psychological terms, rely on

attitudes and intentions to adopt a new behavior. However, as we have seen in the previous section, attitudes and intentions are not the primary drivers of habitual behaviors. Supposing we do have a positive attitude and an intention to choose a late-night piece of fruit, walk straight up, or have tomato juice instead of whisky, if intentions do not drive our habits, this is a lost cause to begin with.

A more effective approach is to analyze the performance context, identify the cues that trigger the habit, and aim our strategies at breaking those cue–response links. This may be done by avoiding the cues, replacing the associated responses with more desirable ones, or changing the performance context itself. Avoiding cues may seem the easier option, but is often not feasible, as many performance contexts are unavoidable. Replacing responses is a more promising strategy, although this effort requires a bit more than simply deciding to do that. Research has considered how unwanted habits can be broken and replaced with "good" habits, using techniques such as implementation intentions (e.g., Adriaanse, Gollwitzer, De Ridder, de Wit, & Kroese, 2011; Holland, Aarts, & Langendam, 2006).

In a demonstration of how implementation intentions can be used to replace bad habits with good ones, Rob Holland, Henk Aarts, and Daan Langendam (2006) conducted a clever field experiment in which they tested whether habit replacement (via implementation intentions) would lead to more recycling in a workplace environment. At the start of the experiment, the researchers unobtrusively measured the amount of paper and plastic cups being recycled in several departments within one company. After emptying garbage cans for a few days (in order to get a good pre-test measure of recycling behavior), different departments within the company were randomly assigned to a control condition, a facility condition (in which a recycling box was placed near the desk of each participant), or an implementation intentions condition. In the implementation intentions condition, participants were asked to write down when, where, and how to recycle their old paper and used plastic cups. After the departments were randomly assigned to one of the conditions, recycling behavior was measured after one week, two weeks, and two months.

In the implementation intentions conditions of the study, the amount of paper and plastic cups thrown away was reduced by about 75%. This change remained even after two months, suggesting that new habits were leading to a real change in behavior. Similarly, Holland et al. (2006) found that the correlation between recycling behavior before the study and recycling behavior two months after the study was close to zero in the implementation intention conditions, suggesting that participants' bad habits were broken and replaced.

This study, and others like it, have played an important role in helping to determine how and when habitual behaviors influence future behaviors. They also have tremendous practical importance (e.g., Adriaanse, Vinkers, De Ridder, Hox, & De Wit, 2011). After all,

*(Continued)*

(Continued)

most of us are confronted with behaviors we want to change but find it very difficult to do. Whether we are trying to save more money, exercise more regularly, or eat a healthier diet, we experience difficulties jumping the gap from good intentions to good actions. Research is providing strong clues about how these gaps can be overcome.

One of the problems with replacing old habits with new behaviors is the danger of relapses. The neural pathways that represent old habits are not simply "erased" when an individual chooses alternative responses; the old traces only gradually decrease in strength. In other words, newly forming and old, fading habits may co-exist for a certain period of time (e.g., Walker, Thomas, & Verplanken, 2015). Thus, during the time a habit is being formed, a process which – if a behavior is daily repeated – may take anything from a few weeks to many months (Lally, van Jaarsveld, Potts, & Wardle, 2010), the old habit may be re-activated, and result in a relapse.

Another strategy for habit change is to change the performance context. Just like avoiding cues, this is, normally speaking, very difficult to accomplish. However, opportunities for context change do arise every now and then. For instance, commuters may be faced with temporary road blockages, and may be forced to consider alternative ways of getting to work, which for some may be a discovery of better options (e.g., Fujii, Gärling, & Kitamura, 2001). We may also capitalize on situations when we go through some life course change, such as transitions from school to work, moving house, changing jobs, starting a family, or retirement. Under such circumstances, performance contexts are changed in a natural fashion. This may "unfreeze" old habits (e.g., Lewin, 1947), and open up opportunities for adopting new ways of doing things or new behaviors altogether. For example, Bas Verplanken, Ian Walker, Adrian Davis, and Michaela Jurasek (2008) found that commuters to their university who had moved house in the past year and were environmentally concerned used the car less frequently for commuting to work than those who were also environmentally concerned but had not recently moved. This led to the *habit discontinuity hypothesis*, which states that behavior change interventions are more effective when delivered in the context of important life course changes (e.g., Verplanken, Roy, & Whitmarsh, 2018). Recently, this hypothesis was tested in a field experiment among 800 households in the English city of Peterborough. Households either received an intervention to promote sustainable behaviors or served as a control group (Verplanken & Roy, 2016). Within each condition, half of the households had moved house in the previous six months, while the other households had not moved, and were matched on key attributes with the relocated households. Self-reported frequencies of 25 environment-related behaviors were assessed at baseline and eight weeks later. While controlling for key determinants of sustainable behaviors (intentions, perceived control, habit strength, environmental values, personal norms, level of involvement) it was found that the intervention was more effective among those who had moved house, especially when they had relocated in the past three months.

### KEY POINTS

- The Composite Model indicates that behavior is influenced by a combination of habit, attitudes, and three types of behavioral outcomes (utilitarian, normative, and self-identity).
- The Composite Model's emphasis on the role of habit is supported by the powerful role of habit in predicting behavior.
- Habits may affect behavior more strongly when the behavior is repeatedly performed in a similar context than when the behavior must be performed in different contexts.

## WHAT WE HAVE LEARNED

- Research examining the Theory of Reasoned Action and the Theory of Planned Behavior has found that behavior can be predicted from behavioral intentions, which are based on attitudes, subjective norms, and perceived behavioral control.
- The Theory of Reasoned Action and the Theory of Planned Behavior do not effectively account for unique effects of different types of belief or for other variables that affect behavior independently of attitudes, subjective norms, and perceived behavioral control (e.g., moral norms, habit).
- According to the MODE Model, attitude accessibility is an important determinant of attitude–behavior correspondence when there is low motivation and/or opportunity to carefully consider available information.
- The Composite Model uniquely emphasizes the role of habit in predicting intentions and behavior.

## WHAT DO YOU THINK?

- The Theory of Planned Behavior predicts that stronger perceptions of behavioral control lead to greater intentions to perform the action and a greater likelihood of performing the action. Should this be true for all behaviors? Are there behaviors that you can easily control, but would never intend to enact? How would the Theory of Planned Behavior look at those behaviors?
- How often are behaviors truly spontaneous or truly deliberate? Can you think of cases where behavior is a mixture of spontaneous processes and deliberate ones? For instance, how would attitudes toward gender and ethnicity influence judgments of a job candidate?

- Can you think of any barriers to the successful use of implementation intentions? The wife of one of the authors suggested that he could correct his slouching habit by thinking "Every time I see a door frame, I will stand up straight." Two years later, his habitual vertical orientation remains curved, though perhaps a bit straighter than before. How would you help him?
- How well do the existing models help to predict the performance of complex behaviors, such as healthy eating, which entails different foods, situations, and repetition over time? These behaviors involve plans, abilities to overcome obstacles, goals, social influences, and adaptation to competing needs. Is it a simple matter to expand current models of attitude–behavior relations to explain such behavior?

## KEY TERMS

*Accessibility* – the ease with which the attitude can be retrieved from memory.

*Attitudes toward targets* – an evaluation of the target of a behaviour (rather than the behaviour itself).

*Behavioral intentions* – a pre-behavior decision to perform or not perform the action.

*Collective-self cognitions* – how the individual feels judged by others.

*Emotional beliefs* – those that refer to the consequences of an action for feelings and well-being.

*Expectancy* – belief that a behavior will produce a desired consequence.

*Habit discontinuity hypothesis* – behavior change interventions are more effective when delivered in the context of life course changes.

*Habits* – memory-based propensities to respond automatically to specific cues, which are acquired by the repetition of cue-specific behaviors in stable contexts and are capable of being enacted without conscious monitoring, while being difficult to control.

*Implementation intentions* – "if–then" plans specifying behaviors that a person will need to perform in order to achieve a goal.

*Instrumental beliefs* – those that refer to the personal, material costs, and benefits of an action.

*Normative beliefs* – beliefs about how people who are important to us expect us to act.

*Normative outcomes* – approval and disapproval from others that might occur from performing a behavior.

*Perceived behavioral control* – individuals' perceptions about whether they possess the resources and opportunities required to perform a behavior.

*Private-self cognitions* – refers to an individual's self-assessment.

*Salient beliefs* – those that are easy to recall and link to the behavior.

*Self-efficacy* – individuals' belief that they can successfully execute a behavior.

*Self-identity outcomes* – effects of a behavior on the self-concept.

*Subjective norms* – perceived social pressure to perform or not perform a behavior.

*Utilitarian outcomes* – rewards and punishments associated with performing a behavior.

*Value* – the perceived importance of a consequence of a behavior.

## FURTHER READING

### BASIC

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# SECTION 3

## INTRODUCTION: WHAT SHAPES ATTITUDES?

Can you remember meeting other new students during your first days at school, college, or university? Some of them may have smiled when you first met them; others may have seemed indifferent or even a bit unpleasant. As the initial weeks progressed, you may have found it easy to warm up to some people more than others: you ended up liking some and disliking others. We seem to form impressions of people almost instantly. We develop intuitions that some people are nice and others are not, and we then hear good things or bad things about them. These intuitions and information can merge to form relatively long-term attitudes, which easily jump into mind whenever we encounter the individuals.

The process of getting to know people provides a simple example of how attitudes are shaped, and the chapters in this section of the book describe theories and research that explain how we form and change attitudes more generally. To address these issues, the chapters build on differences in attitude content. In Chapter 2 we noted that most research has dealt with the three different types of content, which we called the taxi CAB of attitudes: *cognition*, *affect*, and *behavior*. Each type of content can be used to describe attitude formation and change.

Chapter 5 focuses on cognitive processes. We will see that the dominant models of attitude change have focused on how cognitions shape attitudes and that these models have been tested by a number of clever experiments. Chapter 6 focuses on affective processes. This chapter describes a diverse array of fascinating ways in which affect plays a role in attitude – effects that have each led to interesting speculations about how they occur. Chapter 7 focuses on behavioral processes. We will see that behavior has subtle, counterintuitive, and powerful effects on our attitudes and that these effects have led to major theories and programs of experiments to discover their origins. Chapter 8 rounds off the section by highlighting some basic principles that are common across the cognitive, affective, and behavioral processes that shape attitudes.