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SOCIAL PSYCHOLOGICAL THEORY

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CHAPTER OUTLINE

How can we understand the role of theory in applied social psychology? A good place to start is with the realization that we all are applied social psychologists. Although most of us would probably not think of ourselves in this way, all of us are constantly engaged in a process of making observations, constructing theories based on these observations, testing hypotheses derived from our theories, and applying these theories in our lives.

Let us imagine that you are 16-years-old again and that you will be taking your driver's

test in just a few months. Now, as you see it, the purpose of getting your driver's license is so that you can drive a car, and your reasons for wanting to drive a car are to have increased access to places you cannot get to with public transportation, more opportunities to spend quality time with friends, and greater freedom from parental supervision. Once you have your license, there will be only one obstacle standing in the way of your goal, and that is the fact that you do not have a car, and are unlikely to be able to afford one in the foreseeable future.

You realize that your dream of independence will be fulfilled only if you start now on what you anticipate will be a long and hard campaign to get permission to use the family car on a regular basis. Your first step in this campaign is careful observation of the tactics your friends use with their own families, tactics that include "borrowing" their family cars without actually asking; prolonged begging, whining, and pleading; and, when all else fails, completing homework and assigned responsibilities around the house without having to be nagged to do so, and even volunteering to do some helpful things.

On the basis of your observations, you conclude that some of these tactics work better than others. But, what distinguishes the tactics that work well from those that do not? The "borrowing" first and asking later approach seems to result in severe negative consequences, and begging, whining, and pleading seem to succeed only occasionally. However, more often than not, acting responsibly and being helpful seem to increase your friends' chances of using their family cars. So, putting all your observations together, you construct an "adolescent car acquisition theory" that goes something like this:

1. Parents believe that their primary role as parents is to raise their children to be responsible adults.

2. Because of this belief, parents are always looking for indications that their efforts have been successful, and when they see evidence of positive adult behavior, they reward it.

3. Therefore, parents are more likely to accede to a request allowing the enactment of adult behavior (e.g., borrowing the family car) if the request is preceded by the demonstration of different, but positive adult behavior.

While you are waiting to apply for your license, you design a research study to test your theory. You develop specific hypotheses like the following: Volunteering to babysit younger siblings instead of going out with friends on Friday night results in a higher probability of car acquisition on Saturday night. You subsequently recruit your friends to test these hypotheses with their families. Your hypotheses are supported; when your friends demonstrate responsible adult behavior, their rates of car acquisition increase markedly. Therefore, after you get your driver's license, you apply your theory by becoming a model (at least for a teenager) of adult maturity and responsibility. You take out the garbage without being asked, you leave the bathroom sparkling clean after you use it, and so on. Sure enough, when you pop the question, "May I borrow the car Saturday night?," the answer is usually yes.

But wait, there is more. Based on your observations of its successful application, you revisit your theory and realize that it may apply to more behaviors than just car acquisition. You generate and test additional hypotheses like the following: "If I finish my homework, my chances of having a later curfew will increase," and "If I mow the lawn, my band might be able to practice in the basement." Once more, your hypotheses are supported, and your confidence in your theory grows. You apply the knowledge you have gained, consistently demonstrate adult behavior, and become the envy of your friends for all of the privileges you get. Your parents are happy because they believe that your new maturity is the result of their excellent child-rearing techniques, and you are happy not only because of all the privileges you have gained, but also because you have constructed, tested, and applied your first social psychological theory. (In fact, you might be beginning to contemplate social psychology as a career.)

Would you have gotten to use the family car if there had been no adolescent car acquisition theory? Probably, but without the theory, your opportunities to drive would have occurred less often and would have been chance occurrences rather than planned ones. Your theory helped you to accomplish the five goals of science described in Chapter 1 (description, prediction, determining causality, explanation, and control) by providing you with a better *understanding* of what was going on in your parents' heads, thereby enabling you to exert more *control* over the car acquisition process.

This chapter discusses theory in the context of applied social psychology. First, it examines the role of theory in the scientific process. Then, it describes three functions fulfilled by social psychological theories and some of the characteristics of these theories. Finally, the chapter explores two influential theories—cognitive dissonance theory and the theory of planned behavior—in terms of their functions, characteristics, and contributions to applied social psychology. The intent

is not to provide an overview of major social psychological theories—which is done ably in other chapters in this book—but instead to give you a good understanding of theory and its essential role in applied social psychology.

THE SCIENTIFIC PROCESS

The five goals of science are description, prediction, determining causality, explanation, and control. Fulfilling these goals involves carrying out the steps in the scientific process outlined in Figure 2.1—from the observation of phenomena, to the development of theory, to the deduction of specific hypotheses derived from the theory, to testing these hypotheses through research and interventions. You might be interested in knowing that this was the path you followed, albeit unwittingly, in getting the keys to the family car and other privileges.

The first step in the process is *observation.* For social psychologists, the observation stage

Figure 2.1 The Scientific Process
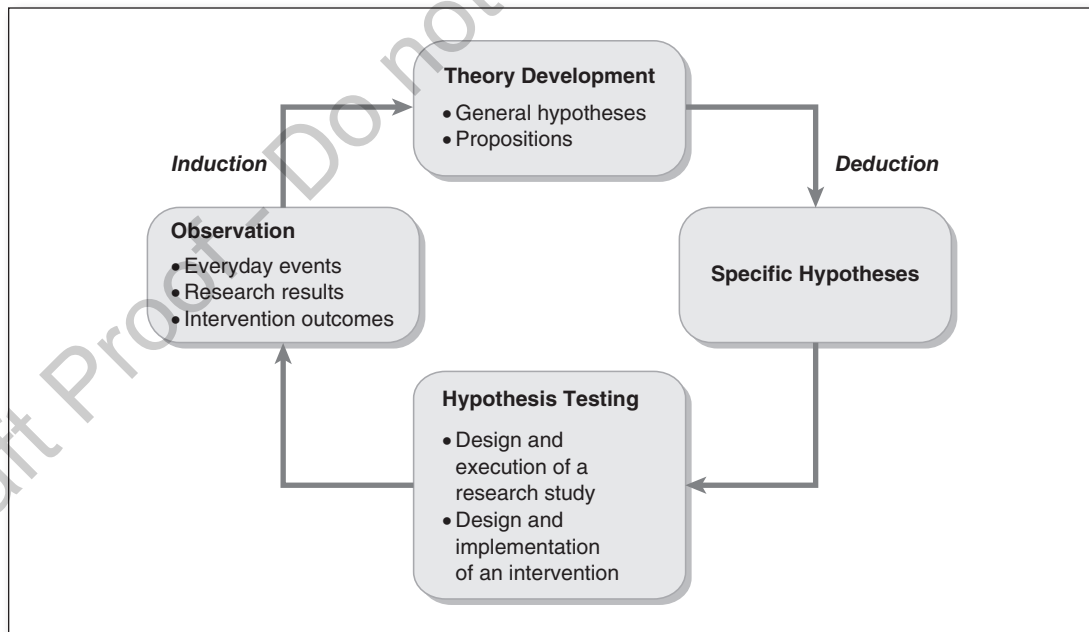
might consist of a single vivid incident from everyday life, a systematic program of descriptive data gathering (such as you used to construct your adolescent car acquisition theory), a review of existing research evidence, or the analysis of intervention outcomes. The bystander behavior theory of social psychologists John Darley and Bibb Latané, for instance, was triggered by their perception of the events surrounding a murder in New York City that took place in front of many witnesses who did not intervene to help the victim (Darley & Latané, 1968).

The next step in the scientific process is *theory development,* with **theory** defined as "a set of interrelated hypotheses or propositions concerning a phenomenon or set of phenomena" (Shaw & Costanzo, 1982, p. 4). In your case, the phenomenon in question was the adolescent pursuit of the family car. You thought about (i.e., analyzed) all of your observations of your friends' behaviors in attempting to get their family cars and their parents' reactions, looked for a common thread, and found it: Parents reward evidence that they have succeeded in their mission to raise responsible adults. On the basis of your observation of many examples of a variety of behaviors and resulting consequences, you constructed a theory that explained all of the examples. This process of moving from the specific to the general is known as **induction** (i.e., inferring general principles from observing specific instances), and it is the way in which the vast majority of social psychological theories are constructed.

The third step in the scientific process outlined in Figure 2.1 is the development of *specific hypotheses* through a process of **deduction** (i.e., deriving specific hypotheses from the general hypotheses and propositions of the theory). A **hypothesis** may be defined as a prediction that specifies the relationship between variables. The relationship that is specified may be causal in nature (i.e., one variable causes change in another variable), or may simply suggest that the variables are correlated, but not in a causal manner (see Chapter 3). Your adolescent car acquisition theory includes the general causal hypothesis that

the voluntary enactment of particular adult behaviors by an adolescent will result in parents' granting permission for other adult behaviors (e.g., driving the family car). Based on this general hypothesis, you developed a series of specific hypotheses that attempted to specify the relationship between particular adult behaviors enacted by your friends (e.g., babysitting, washing dishes) and the particular adult behavior for which they would request permission (i.e., borrowing their family cars).

The fourth step in the scientific process is *hypothesis testing.* To test hypotheses, social psychologists use a variety of strategies, including conducting research and carrying out interventions. As indicated in Chapter 1, many social psychologists focus primarily on the goals of science that center on understanding social psychological phenomena. For these psychologists, the goal of control through the application of social psychological knowledge is not a central concern, and hypothesis testing is carried out through the design and execution of systematic research studies. The results (observations) of such research may provide support for the hypothesis, and thus for the theory from which it was derived. Observations that do not support the hypothesis may lead to modifications of the original theory, or to the development of a new one.

However, many social psychologists, particularly those who define themselves as applied social psychologists, are interested in pursuing the fifth goal of science—control. Thus, these social psychologists are interested in the *application* of the knowledge gained through theory development in the design and implementation of interventions. As a teenager who is eager to drive, your careful analysis of the adolescent request–parental resistance phenomenon enabled you to influence your parents so that they would give you the car keys nearly every time you asked. Applied social psychologists use theories in a similar way, that is, as the source of intervention strategies designed to improve the functioning of individuals, groups, or organizations. And as Figure 2.1 shows, the process does not end there.

Intervention strategies derived from theory and research results lead to further observations, to the modification of existing theories or the construction of new ones, to the testing of hypotheses derived from these theories, and to new possibilities for application (through a continuing process of induction and deduction).

THEORY IN SOCIAL PSYCHOLOGY

Functions of Social Psychological Theories

We noted in Chapter 1 that Kurt Lewin, one of the founders of social psychology, believed that there was "nothing so practical as a good theory" (Lewin, 1944/1951, p. 169). Why is a good theory practical? Or, to put it another way, what functions does a theory perform? One way in which to think about the functions of a theory is to see it as the one component of the scientific process outlined in Figure 2.1 that ties the other three components together by providing organization, direction, and guidance for the development of interventions.

The first function of a theory, which is related to observation, is to provide *organization.* Organization refers to the systematic arrangement of observations that demonstrate their relationship to one another. Just as an architect needs a blueprint to turn a heap of stones into a house, the social psychologist needs a theory to discern the pattern that underlies and connects observations of relevant phenomena. The move from observation to theory is a critical one because the most careful compilations of fact—the most detailed descriptions—do not tell us possible ways in which the observed phenomena are interrelated. Referring once more to your adolescent car acquisition theory, some of your friends found that their chances of using their family cars increased if they mowed the lawn, whereas others observed the same result if they volunteered to babysit. However, it was only when you organized these two observations (and others) within the framework of your theory that you were able

to identify a common theme that connected them. It was not solely lawn mowing or babysitting that earned your friends' use of their family cars; it was the meaning of these behaviors to your friends' parents.

The second function of theory, which is related to hypothesis testing, is to provide *direction.* Direction refers to guidance as to where research efforts should be focused. When you are traveling to a new destination, you use a road map to chart your course, perhaps noting alternate routes that you may try on future trips if your initial choice is not satisfactory. In the same way, social psychological theories may suggest possible previously unconsidered relationships between observed phenomena and may provide stimulation and guidance for further hypothesis testing, and the possible alteration of the theory or even the generation of new theories. For example, your adolescent car acquisition theory led you to demonstrate previously untried mature behaviors to your parents in pursuit of permission for other adult behaviors besides driving the car.

The third function of a theory, which is related most directly to application, is to guide *intervention.* Intervention refers to the attempt to bring about a change in the world. The goal of medical science is to identify the causes of disease, not out of idle curiosity, but rather to prescribe actions that will prevent its occurrence. In the same way, theories in social psychology provide prescriptions for the solutions to social and practical problems. So, for example, you used your adolescent car acquisition theory as the basis for an intervention strategy that solved your practical problem of getting access to the family car as frequently as possible.

Characteristics of Social Psychological Theories

Social psychological theories differ in terms of a number of characteristics, including scope, range, testability, and parsimony. The **scope** of a theory refers to the number of different human

behaviors that the theory attempts to explain. Social psychology, like other branches of psychology, has been influenced by several broad perspectives that explain most human behaviors by reference to a single central concept. For example, according to psychologist John Watson's (1913) *behaviorist perspective,* all human behaviors are learned responses to external rewards and punishments. Sigmund Freud's (1935) *psychoanalytic orientation* suggests that humans behave as they do because of unconscious motivations, and Lewin's (1944/1951) *phenomenological perspective* advances the notion that human behavior is the result of the way in which we subjectively interpret our environment. Many social psychological theories incorporate some aspects of these perspectives, recognizing the importance of learning (behaviorist), motivation (psychoanalytic), and internal cognitive processes (phenomenological). However, social psychological theories do not claim to be able to explain all kinds of human behavior and thus are more limited in scope than the perspectives they reflect.

Many social psychological theories, such as cognitive dissonance theory and the theory of planned behavior (discussed in more detail later in this chapter) are *midlevel theories* that attempt to explain one way of thinking or behaving that is relevant in a number of different situations. Other theories are *minitheories* that attempt to explain a particular human behavior when faced with a particular set of circumstances. For example, cultivation theory, discussed in Chapter 7, could be described as a minitheory because it focuses on how viewing a lot of television impacts individuals in various ways.

Range refers to whether a theory predicts the behaviors of only a specific group of people or all humans. Until relatively recently, the assumption shared by many social psychologists was that it is possible to identify certain universal principles that shape the behavior of all humans; therefore, the theories they developed were thought to apply to people in general. Social psychologists have come to realize, however, that people's behavior may be influenced by individual differences, such as intelligence and temperament, as well as by group differences, such as gender and cultural background. Therefore for instance, to determine possible limits to a theory's range, increased attention has been paid to testing hypotheses with men and women separately and with people who differ on individual- and group-level attributes.

Another characteristic of a theory, and perhaps the most important one, is its **testability**. Testability refers to the idea that a good theory is capable of being refuted or disproved. In our individualistic culture, the idea that you can accomplish anything you want so long as you try hard enough is a very powerful theory. Unfortunately, it is not a good theory because it is impossible to disprove. Did you accomplish your goal? If so, it must be because you tried very hard. If not, it must be because you did not try hard enough. How does one know that you did not try hard enough? One knows because if you had tried hard enough, you would have succeeded. The theory that anything is possible with enough effort is not testable because it does not specify what "enough" effort means. Many of the variables in which social psychologists are interested, such as values, attitudes, and beliefs, are internal states that are not directly observable, and so for some time theories about these variables were thought to be untestable. Thus, social psychologists were hampered in their theorizing until methods to measure these internal variables were developed (Jones, 1998), and much current social psychological research is devoted to developing new and better measurement methods so that promising theories can be tested.

A theory should also demonstrate **parsimony**, meaning that it should use the fewest possible propositions to explain the phenomenon in question. Perhaps in part because social psychologists have focused on midlevel theories and minitheories rather than attempting to construct and test grand theories (i.e., those that are broad in scope) of human behavior, their theories tend not to include an overabundance of propositions. However, given the complexity of social behavior,

social psychologists sometimes have to sacrifice some parsimony to provide adequate theoretical explanations.

Probably the best way in which to understand theories' functions and characteristics, as well as the interplay of observation, theory construction, hypothesis testing, and application, is to look at actual theories. We now consider two influential theories in social psychology—cognitive dissonance theory and the theory of planned behavior—and examine their function in terms of organization, direction, and possibilities for intervention.

COGNITIVE DISSONANCE THEORY

Description

How would you react if you felt the tremors of an earthquake, but fortunately did not suffer any direct injury or property damage? Prasad (1950) observed that, curiously, people in India who were in exactly this situation after a severe earthquake started spreading rumors of even worse disasters to come. When Festinger (cited in Myers & Spencer, 2004) read Prasad's descriptive study, he wondered whether perhaps the people spread these rumors not to provoke more anxiety, but rather to justify the anxiety they still felt, even though the earthquake was over and they had suffered no injuries or damage. Festinger wrote, "From that germ of an idea, I developed my theory of dissonance reduction—making your view of the world fit with how you feel or what you've done" (p. 132).

As indicated in Figure 2.2, the core of cognitive dissonance theory is the idea that humans are motivated to maintain consistency among their cognitions (e.g., opinions, attitudes, knowledge, values) because cognitive dissonance, the situation that exists when two cognitions are psychologically inconsistent with one another, is psychologically uncomfortable. Festinger's cognitive dissonance theory would suggest, in the case of Prasad's (1950) rumor spreaders, that their cognition that "the earthquake didn't hurt me in any way" was inconsistent with the cognition that "I'm still feeling very frightened." For them, apparently the easiest way in which to reduce their dissonance-caused discomfort was to justify their fear by adding new cognitions (Figure 2.2), that is, by generating rumors of impending disasters. They might have taken a seemingly more logical approach (e.g., moving away from the earthquake zone), but an additional key element of cognitive dissonance theory is the proposition that people will reduce dissonance in the easiest way possible. For example, the cognition that "exercising is good for my health" is dissonant with the cognition that "my only exercise is the trip between my couch and my refrigerator." The most logical action for me to take would be to start exercising. However, because breaking old habits and acquiring new ones is very difficult, I probably will reduce my dissonance in one of several other ways. I might change my cognition that exercising is good for my health ("Joggers drop dead from heart attacks every day"), add new cognitions that rationalize my "couch potato" existence ("Relaxing is also good for my health") (Festinger, 1957), or trivialize the importance of my inconsistent cognitions ("What's the big deal? Nobody lives forever") (Simon, Greenberg, & Brehm, 1995).

Organization

Although Festinger (1957) wrote an entire book detailing the definitions, assumptions, and hypotheses of his theory of cognitive dissonance, its essence can be captured in a few sentences. Think about what is implied by this seemingly simple theory: Human inconsistency is not a new phenomenon. Everyone can think of examples when we knew we were behaving in ways that contradicted our attitudes or beliefs, yet we still managed to find ways to rationalize the contradictions. In fulfilling the first function of a theory—organization—what cognitive dissonance theory does is to organize what we know about human inconsistency in such a way that we are led to some nonobvious conclusions about

Figure 2.2 Cognitive Dissonance Theory

Cognitive Dissonance Theory

Central Hypotheses

- Cognitions can be irrelevant to, consonant with, or dissonant with each other.
- Humans are motivated to maintain cognitive consonance.
- The presence of cognitive dissonance is psychologically uncomfortable and creates pressures to reduce dissonance.

Some Dissonance Producing Situations

- *Postdecisional dissonance.* Dissonance almost always exists after a decision has been made between two or more alternatives.
- *Effort justification.* Dissonance almost always exists when a person engages in an unpleasant activity to obtain some desirable outcome.
- *Insufficient justification.* Dissonance almost always exists after a successful attempt has been made to elicit overt behavior that is at variance with private opinion by offering a reward that is just sufficient to elicit the overt behavior.

Some Ways to Reduce Dissonance

- Change one or more of the dissonant cognitions.
- Add new cognitions to make existing cognitions consistent.
- Downplay importance of dissonant cognitions.

SOURCE: Adapted from Festinger (1957) and Aronson and Mills (1959).

the relationship between attitudes and behavior, particularly the idea that we may change our attitudes to match our behavior rather than the other way around.

Direction

The second function of a theory is to provide direction for research, and by this criterion, cognitive dissonance theory is one of the best. Festinger (1957) derived a number of intriguing hypotheses from cognitive dissonance theory that have been tested in hundreds of experiments. Figure 2.2 illustrates the three dissonance situations that have received the most attention. They involve postdecisional dissonance, effort justification, and insufficient justification.

Postdecisional dissonance. Let us start with postdecisional dissonance. Have you ever had to choose between two attractive alternatives? You go back and forth considering the pros and cons of each alternative, but eventually you have to make up your mind. Dissonance theory predicts that whichever alternative you choose (e.g., when purchasing a car), you will feel dissonance because of the two conflicting cognitions: "I bought the BMW" and "Maybe I should have bought the Audi because there are some great things about it." But, it is too late to change your mind; you have already signed the papers and driven the car home. Your decision has been made, so you cannot reverse your behavior. What will you do? The dissonance theory prediction, supported by extensive research (e.g., Brehm,

1956; Heine & Lehman, 1997; Knox & Inkster, 1968; Litt & Tormala, 2010; Shultz, Léveillé, & Lepper, 1999), is that you will reevaluate the chosen and unchosen alternatives so that the chosen alternative appears to be clearly superior to the unchosen alternative. In other words, two cars that were judged to be very close together before you made your decision are now perceived to be much further apart. Note what has happened here and how in some ways it contradicts common sense. We like to think that our attitudes guide our behaviors: "I like BMWs better, so I bought a BMW." But in this instance, your behavior actually contributed to a change in attitude: "I bought a BMW, so I guess I must like BMWs better."

Automobile salespeople are very aware of the practical implications of postdecisional dissonance. They use what is called a *lowball* technique by offering such a good deal on a car that the customer commits to buying it. In some cases, the customer is even allowed to take the car home overnight to reinforce the commitment made. When the customer returns the next morning to pay for the car, just before money changes hands, the salesperson explains that some costs in the total price had accidentally been omitted by the sales manager, so the car will actually cost more than the amount the customer had originally agreed to pay. The logical decision at this point is to refuse the deal (because it is no longer such a great deal). But by now, the customer has had many hours to justify choosing this car instead of any others that had been considered. The chosen alternative now looks so much better than the unchosen ones that the customer does not mind shelling out a little extra cash. After all, it is clearly a superior car (Cialdini, Cacioppo, Bassett, & Miller, 1978).

Effort justification. Cognitive dissonance theorists have also tested the effects of effort justification on attitude change. Have you ever worked very hard to achieve a goal—say, admission to the college you are now attending—only to have a sinking feeling after you attained the goal that all that effort might not have been worth it?

In this case, your two dissonant cognitions are "I worked very hard to get accepted by this college," and "So far, my college experience doesn't seem to be as good as I expected it to be." Cognitive dissonance theory predicts, again with research support (e.g., Aronson & Mills, 1959; Cunha & Caldieraro, 2009; Gerard & Mathewson, 1966), that in this situation, where (once again) you cannot change your behavior (changing schools in midyear is difficult), you will instead reevaluate the goal you have attained and convince yourself that it was in fact a very worthy goal (e.g., "I doubt that I would have a better experience at any of the other colleges I considered").

The idea of effort justification may be applied to practical problems. For example, Axsom and Cooper (1985) recruited overweight female college students to participate in a weight loss experiment in which participants were told that they would be completing a series of cognitive tasks (e.g., reciting nursery rhymes with delayed auditory feedback) designed to increase neurophysiological arousal that supposedly would enhance emotional sensitivity, and in turn lead to increased weight loss. (In actuality, there was no evidence that the cognitive tasks helped with weight reduction.) For some participants, the cognitive tasks were relatively difficult and required considerable effort to complete; for others, the tasks were relatively easy. Participants in a control group completed no cognitive tasks and were simply weighed. After four sessions over three weeks, the high-effort women had lost more weight than had the low-effort and control-group women. The dissonance theory interpretation for the high-effort women goes like this: "After I have expended all this effort to lose weight, I am more convinced than ever that weight loss is a good goal, and so I will try even harder to lose weight." Furthermore, despite the fact that there were no more sessions and the participants were not aware that they would be contacted again, the beneficial effects of the high-effort condition were still apparent a year later. When they weighed in at that time, the high-effort women had lost an average of

6.7 pounds, compared to less than 1 pound for the low-effort women and a gain of nearly 2 pounds for the control-group women. Further research by Axsom and his colleagues (Axsom, 1989; Cooper & Axsom, 1982) suggested that psychotherapy patients who have to work hard at their own treatment are more likely to report feeling better when the treatment is over than are those patients who do not have to work as hard.

Insufficient justification. Insufficient justification is the most difficult dissonance theory hypothesis to understand and is also the most intriguing. Suppose that your friend has just gotten a haircut that makes him look like a badly plucked chicken. When he asks you for your opinion, you can either tell him what you really think and hurt his feelings, or lie and tell him that the new haircut looks great. Normally, your knowledge that you lied would be dissonant with your belief that you are an honest person, and you would feel uncomfortable. However in this case, your concern for your friend's feelings provides you with considerable external justification for your lie, so you do not feel dissonance, and you do not change your real opinion (i.e., you still believe that the haircut was a big mistake). But, what happens if you lie about something and there is very little external justification for doing so? When this happens, cognitive dissonance theory predicts that because you cannot take back the lie (it has already been told), you will provide yourself with internal justification for your behavior. You will convince yourself that you were not really lying by changing your attitude regarding whatever it is you lied about.

In the original test of the insufficient justification hypothesis (one of the classic experimental studies of social psychology), Festinger and Carlsmith (1959) had college students participate in a very boring study and then induced them, for either $1 or $20, to tell another student that the study was very interesting. The participants were then asked to indicate how they really felt about the experiment. Consistent with cognitive dissonance theory predictions, students who

had lied to a fellow student for only $1 evaluated the experiment as more interesting than did students who had lied for $20. Why? According to Festinger and Carlsmith, both the $1 students and the $20 students had two dissonant cognitions: "I thought that the experiment was boring" and "I just told a fellow student that it was interesting; I just told a lie." For the students who had lied for $20, the inconsistency was resolved with the addition of the cognition, "I'm a poor student, and I got paid a lot of money for telling a harmless lie." But, for the students who had lied for $1, the knowledge that they had lied to a fellow student could not be externally justified (who lies for a paltry $1?), so they had to provide internal justification for their behavior by convincing themselves that the study had actually been kind of interesting.

The cognitive dissonance aroused by insufficient justification has been demonstrated in many studies (e.g., Brehm & Cohen, 1962; Hobden & Olson, 1994; Macias et al., 2009; Riess & Schlenker, 1977) and also has been used to change people's attitudes about important issues. Leippe and Eisenstadt (1994) either told (high external justification) or asked (low external justification) White college students at a U.S. university to write an essay in support of doubling the scholarship funds available to African American students, even though this would mean halving the funds available to other students. Consistent with cognitive dissonance theory predictions, only the students who had written the essay voluntarily subsequently expressed more favorable and supportive attitudes toward African Americans than they had before engaging in the attitude-discrepant behavior.

As illustrated, good theories provide direction for research by generating testable hypotheses. The results of hypothesis testing research also can lead to theory modification. One modification of cognitive dissonance theory with significant implications for application is Aronson's (1968, 1992) reinterpretation of cognitive dissonance as always involving some form of *self*-justification. Think about the following cognitions: "I am driving at night on a lonely

country road and just got a flat tire," and "I don't have my tire jack with me." In his book, Festinger (1957) argued that a person in this situation, although frustrated would not feel dissonance because the two cognitions are not psychologically inconsistent; that is, the two cognitions do not contradict each other in the way that the following cognitions do: "I smoke," and "I know that smoking is bad for me" (pp. 277–278).

Aronson (1999) disagreed, stating that the dissonance would come from the fact that the driver, like most of us, likes to think that he is a reasonably intelligent individual, but his two cognitions lead him to conclude that he must be a total idiot to drive down a country road in the middle of the night without a jack. This observation led to Aronson's *self-consistency dissonance theory,* which posits that situations evoke dissonance because of an inconsistency between self-concept and awareness of one's behavior. In other words, people experience dissonance when they behave in ways that they view as reflecting negatively on themselves (that they are incompetent, immoral, irrational, etc.). Research supports this idea, and as Aronson (1968, 1992) pointed out, the results of many cognitive dissonance experiments can be interpreted in accordance with his modification of cognitive dissonance theory. Furthermore, Aronson's reworking of dissonance theory provides a good illustration of how cognitive dissonance theory has fulfilled the third function of theory: helping in the design of interventions.

Intervention

Do you believe that we need to do more to conserve our natural resources? Now, do you behave in a way that is consistent with your beliefs? It is quite possible that your behavior is not necessarily consistent with your beliefs. Let us take recycling as an example. How many of us look for the recycling box every time we have something to throw out, and how many of us "cheat" quite often, or at least occasionally, because it is just easier to toss that bottle into the nearest garbage can?

But, what would happen to your behavior if you were asked to write and deliver a speech on the importance of recycling, a speech that would be videotaped and shown to various audiences as part of a community campaign to increase participation in recycling programs? Now, suppose that you do not recycle very much, if at all, even though you think that it is a good idea. You still would probably be able to give the speech, coming up with some pretty good arguments in support of recycling. However, it is unlikely that your own recycling behavior would change much at all. But, suppose that just before you write the speech, you are questioned about your own recycling behavior. Now that you must focus on your behavior, you have two dissonant cognitions: "I will be preaching recycling to my community," and "I don't practice what I preach." In other words, you are now very aware of your hypocrisy.

This is exactly the manipulation that Fried and Aronson (1995) used in their experiment. College students were asked to write and deliver a pro-recycling speech, but prior to writing the speech, half of the participants (the hypocrisy condition) were asked to list examples of recent times when they had failed to recycle. After they had written their speeches, all participants were asked whether they would volunteer to make phone calls for a local recycling organization. Just as predicted, the participants in the hypocrisy condition (who had been reminded that their actual behavior was not consistent with their expressed attitudes) volunteered significantly more often, and for longer periods of time, than did those students who had only written the speeches. Similar results have been reported in experimental studies involving the induction of hypocrisy to increase condom use (Aronson, Fried, & Stone, 1991; Stone, Aronson, Crain, Winslow, & Fried, 1994), to encourage water conservation (Dickerson, Thibodeau, Aronson, & Miller, 1992), and to encourage safe driving (Fointiat, 2004).

A meta-analysis of research using dissonance-based health interventions was conducted by Freijy and Kothe (2013). They found that programs that incorporated hypocrisy, such as having

participants talk about the health risks of binge drinking and then reflecting on their own drinking behavior (arousing dissonance), were the most frequently used and also tended to be highly effective. One area that is particularly promising for dissonance-based interventions is in the prevention of body dissatisfaction and treatment of eating disorders. In their meta-analysis, Stice, Shaw, and Marti (2007) reported that eating disorder prevention programs with a dissonance-based component were the most effective in reducing dieting behaviors, body dissatisfaction, and fear of weight gain despite participants being underweight, and exhibiting extreme exercise behaviors.

Naughton, Eborall, and Sutton's (2013) study of smoking cessation provides another example of how theoretically grounded research can drive the development of effective health interventions. The researchers interviewed pregnant women who were experiencing dissonance related to their smoking behavior (e.g., "I smoke even though it can cause birth defects"), which increased their motivation to stop smoking. Consistent with cognitive dissonance theory, women who were unable to quit smoking reduced their dissonance by adopting "disengagement beliefs" that underestimated the likelihood of harm to their babies, such as deciding that the medical evidence was unclear. The results of this study can be used to design interventions that target and debunk these beliefs, thus decreasing their usefulness as dissonance reducers and increasing the likelihood that pregnant women will be able to stop smoking.

Summing Up Cognitive Dissonance Theory

How can we sum up cognitive dissonance theory? Based on the "germ of an idea" triggered by his reading a study about rumors, Festinger (1957) developed a theory that, given its applicability to a number of different situations, could be described in terms of scope as a midlevel theory. As originally proposed, cognitive dissonance theory had a broad range because it was presumed to apply to people in general rather than to particular individuals or groups. Further research on individual and cultural differences has modified this presumption somewhat. The central premise of cognitive dissonance theory is that psychological inconsistency makes people uncomfortable. However, Cialdini, Trost, and Newsom (1995) developed a Preference for Consistency scale and discovered that some people have a low preference for consistency, whereas others have a high preference for consistency. Consistent with cognitive dissonance theory predictions, both high- and low-consistency preference individuals changed their attitudes when they were induced to behave in attitude-inconsistent ways, and had low external justification for doing so. However, contrary to cognitive dissonance theory predictions, people with a low preference for consistency changed their attitudes to match their behaviors even when they had high external justification for behaving as they did and could have avoided attitude change by attributing their behavior to the external pressure.

As discussed elsewhere in this book, cross-cultural psychologists have identified a reliable cultural difference known as individualism–collectivism (Hofstede, 1991). In individualistic cultures, the integrity of the individual is most important, whereas people in collectivistic cultures are expected to behave in ways that preserve the integrity of the group, regardless of their own attitudes. Therefore, Kashima, Siegal, Tanaka, and Kashima (1992) hypothesized that the preference for internal psychological consistency would be stronger in individualistic cultures than in collectivistic cultures. Consistent with their hypothesis, they found that Australians, whose culture is relatively individualistic, had stronger beliefs about the importance of attitude–behavior consistency than did Japanese, whose culture is relatively collectivistic. Recent research also shows that cognitive dissonance operates differently between North Americans and East Asians (e.g., Hoshino-Browne et al., 2005; Imada & Kitayama, 2010; Kitayama, Snibbe, Markus, & Suzuki, 2004).

Without a doubt, cognitive dissonance theory fulfills the criterion of testability. Since its inception, it has inspired many hundreds of studies and continues to influence research (e.g., Abelson et al., 1968; Harmon-Jones & Mills, 1999; Martinie, Olive, & Milland, 2010; West, Jett, Beckman, & Vonk, 2010; Wicklund & Brehm, 1976). Cognitive dissonance theory also provides a good example of parsimony given that the essence of the theory can be captured in a few propositions.

In short, cognitive dissonance theory provides an excellent example of how theory serves three main functions: (a) organizing the existing literature, (b) providing direction for the testing of hypotheses derived from the original theory and for the generation of new hypotheses and new theories, and (c) suggesting many possibilities for intervention. Recapitulating the scientific process (see Figure 2.1) and emphasizing the relationship that should exist between experimentation and application, Festinger (1999) said it very well:

> I think we need to find out about how dissonance processes and dissonance reducing processes interact in the presence of other things that are powerful influences of human behavior and human cognition, and the only way to do that is to do studies in the real world. They're messy and difficult . . . But out of them will emerge more ideas which we can then bring into the laboratory to clarify and help to broaden and enrich the work. (p. 385)

We turn now to the theory of planned behavior a younger theory than cognitive dissonance, but one that has generated a large volume of research across many fields.

THEORY OF PLANNED BEHAVIOR

Description

The **theory of planned behavior** emerged as many theories do through a process of observation and reflection. As graduate students in the 1960s, Icek Ajzen and his contemporaries compared strict behaviorist interpretations of human action with their own experiences with complex decision making (Ajzen, 2011b). For example, people deciding which button to press in response to a specific stimulus in order to earn an artificial "reward" in a laboratory experiment hardly seems analogous to people's decisions to join a gym, smoke marijuana, or disobey traffic laws. Ajzen and his colleagues also observed a disconnect between the way people behave, and their general dispositions (Ajzen, 2011a). For example, you may know someone who values environmental causes, but may not always make eco-friendly choices, perhaps choosing to drive to school some days instead of biking or taking the bus.

The foundation for the theory of planned behavior is the theory of reasoned action, proposed by Fishbein and Ajzen in 1975 to explain and predict a variety of volitional behaviors. The theory of reasoned action states that people enact behaviors because they intend to do so, although intentions can change over time as people take in new information. In the theory, **behavioral intentions** result from a combination of a person's attitude toward the behavior and subjective norms. **Attitude** is determined by what a person believes the likely outcome of the behavior will be, and what they think about that outcome. **Subjective norms** are a person's beliefs about what the people they know would think of this behavior, and how motivated they are to do what these significant others would do or approve of. Let us return to your adolescent car acquisition theory. In your quest to gain the use of the family car, you decide to demonstrate responsible behavior, so you take out the garbage without being asked, thus (you hope) making it more likely your parents will lend you the car on a regular basis. According to the theory of reasoned action, you believe that taking out the garbage will probably lead to your parents noticing and approving of this action (outcome), which will be helpful to you (evaluation of outcome) in that it will further demonstrate responsible behavior. On this basis, you form a positive attitude toward taking out the garbage.

You also believe that your parents think you should be helping out around the house by taking out the garbage (subjective norm), and you want to comply with their expectations in order to test your theory. Your attitude toward taking out the garbage combines with your perception of your parents' approval of this activity to produce an intention to take out the garbage, which leads to the behavior. In this example, the subjective norm is related to your attitude toward the behavior, which is often the case with real-life examples. Now, imagine one component of the theory is absent. For example, suppose your parents don't really care whether or not you take the garbage out. The likely result would be that you will not form the intention to take out the garbage, and therefore not perform the behavior. Extensive research continues to support the theory of reasoned action through direct testing of the relationships among attitudes, subjective norms, and behavioral intentions. However, the theory of planned behaviour has been found to

be less predictive of intentions when the behavior is not completely under a person's control (Godin & Kok, 1996). In fact, Ajzen (2011b) noted that confining the theory to volitional behaviors "imposed too severe a limitation on a theory designed to predict and explain all manner of socially significant behavior" (p.445).

Ajzen (1985) decided to extend the theory of reasoned action by introducing the variable of volitional control and developed the theory of planned behavior (see Figure 2.3). Ajzen recognized that a multitude of factors under varying degrees of individual control can interfere with the performance of behaviors. You may have planned all week to shop for groceries on Saturday, but when you wake up, it's raining outside and your roommate needs to borrow the car, so you postpone your shopping expedition. As Ajzen put it, "every intended behavior is a *goal* whose attainment is subject to some degree of uncertainty. We can thus speak of a behavior-goal unit; and the intention constitutes a plan of

Figure 2.3   The Theory of Planned Behavior
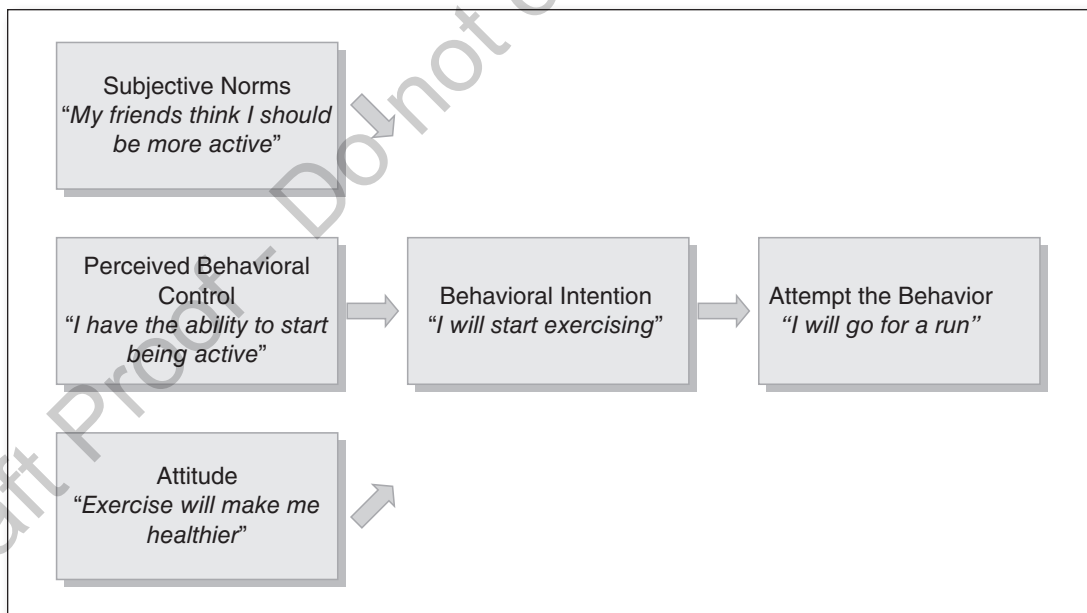
action in pursuit of the behavioral goal" (1985, p. 24). In other words, volitional control, the amount of control a person believes they have over a behavior, and their perception of the probability that there will be obstacles (control beliefs), as well as their evaluation of how much of an impact will occur with facilitating or obstructing factors, will affect a person's intentions to attempt a behavior. These factors can be external, like time, opportunity to perform the behavior, or whether the behavior relies on other people. Or they can be internal factors, such as skills, abilities, emotional state, or beliefs about the ability to perform a specific behavior (self-efficacy). For example, you may believe you can improve your grades by spending more time studying, but you also believe that your role on the soccer team will place significant demands on your time. And since you also believe that you are a much better soccer player than a student, you conclude that there is little point in attempting to study more (no behavioral intention).

Organization

Ajzen (1985) developed the theory of planned behavior based on his analysis of experiments that tested the theory of reasoned action. He noted that although some studies showed a high correlation between intention and attempted behavior, thus supporting the theory of reasoned action, other experiments showed a much weaker relationship between intention and action. The behaviors studied in the experiments with weaker relationships, such as a study of weight reduction in college women (Sejwacz, Ajzen, & Fishbein, 1980), and a study of blood donation (Pomazal & Jaccard, 1976), seemed to involve variables that reduced behavioral control. For example, losing weight depends in large part on an individual's metabolism, and in order to donate blood, potential donors have to be able to pass the screening procedures. The new theory of planned behavior organized these seemingly inconsistent results and formulated a set of relationships to be tested.

It is easy to imagine how the theory of planned behavior can be applied to a variety of behaviors of concern to social scientists who are interested in determining why people decide to act or fail to act, especially in cases where people's stated attitudes and beliefs do not translate into actions. Consider the practice of downloading music or movies from the Internet without paying for them. People who otherwise believe that stealing is wrong sometimes engage in this behavior. Why might this be? The theory of planned behavior can provide a testable framework for the analysis of this attitude-behavior disconnect. For example, you believe that stealing is wrong, but you love music, you know that all your friends are effortlessly downloading free music, and the cyber-police have not come to their houses to arrest them. As a result, your pro music attitude, supported by a high perceived level of behavioral control and a perception of supportive subjective norms, will make it likely that your behavior will not reflect your anti-stealing attitude, and you will download music from the Internet without paying for it. In fact, some researchers have started to apply the theory of planned behavior to issues like illegal downloading and other online behaviors (e.g., Robertson, McNeill, Green, & Roberts, 2012; Sang, Lee, Kim, & Woo, 2015). Other researchers have used the theory of planned behavior to understand and predict attitude-behavior links across diverse fields, such as social psychology, business, information technology, education, and healthcare (Conner & Armitage, 1998; Godin & Kok, 1996).

Direction

Analysis of the available research also indicates that the theory of planned behavior, like cognitive dissonance theory, has fulfilled the second function of a theory—providing research direction by suggesting new relationships among existing phenomena, thereby stimulating hypothesis testing. The theory of planned behavior has been applied to diverse topics, from recycling and eco-friendly tourist behaviors (Cheung & Chan,

1999; Han, Hsu, & Sheu, 2010) to adolescent sexting (Walgrave, Heirman, & Hallam, 2014), and like cognitive dissonance theory has proceeded through the phases of hypothesis testing with direct tests and proposed extensions.

One area where the theory of planned behavior has provided ample direction is behaviors related to health and safety. Researchers have found that perceived behavioral control, in addition to attitude and subjective norms is predictive of intentions to exercise (Blue, 1995), engage in unsafe driving behaviors (Parker, Manstead, Stradling, Reason, & Baxter, 1992), use condoms (Albarracin et al., 2001), attend cancer screenings (Devellis, Blalock, & Sandler, 1990; Montano & Taplin, 1991), quit smoking (De Vries, Backbier, Kok, & Dijkstra, 1995; Norman, Conner, & Bell, 1999), and start smoking (Van De Ven, Engels, Otten, & Van Den Eijnden, 2007). Another study of unsafe driving behaviors by Parker and colleagues' (1992) provides an example of how the theory of planned behavior outlines the path from thoughts to behaviors. In this study, drivers who a) had relatively negative views regarding dangerous driving behaviors, such as following closely or drinking and driving (attitude), b) felt that others would disapprove (subjective norm), and c) believed they had control over these behaviors (perceived behavioral control) were less likely to intend to engage in these unsafe behaviors. Interestingly, while many other studies report that attitudes are the strongest predictor of intentions, this study reported that subjective norms were the most influential. This finding has interesting implications for other behaviors that are performed in social contexts like tipping in restaurants, and suggests future directions for social psychological research and intervention.

Direct tests of the theory of planned behavior confirm the predictive value of perceived behavioral control on intentions and goal attainment, but suggest that the theory is more predictive for some types of behavioral intentions than others (Godin & Kok, 1996; Schifter & Ajzen, 1985). Several meta-analyses also suggest that researchers can use parts of the theory, like measures of attitudes, subjective norms, and perceived behavioral control to predict behavioral intentions indirectly (e.g., Albarracin et al., 2001; Blue, 1995), and that beliefs can predict attitudes, subjective norms, and perceived behavioral control (Armitage & Conner, 2001), providing researchers with different avenues for hypothesis testing.

In addition to providing direction to numerous researchers over the past 30 years, the theory of planned behavior continues to stimulate interest and new directions. For example, Conner and Armitage (1998) have suggested that the theory of planned behavior could be extended to include belief salience (how easily the belief comes to mind), past behavior, self-efficacy, moral norms, and self-identity. Researchers have found support for the inclusion of anticipated affective outcomes, such as guilt or regret in theory of planned behavior models for behaviors, such as gambling and illegal downloading (Robertson et al., 2012; Wang & McClung, 2012). For example, if an individual anticipated they would feel worried and regret for their actions after having unprotected sex, they would incorporate this into their decision making and be less likely to intend to have unprotected sex.

Intervention

One strength of the theory of planned behavior is its fulfillment of the third function of a theory, that is, its application in interventions (see Hardeman et al., 2002 for a review of these applications). As Ajzen (2011a) highlights, the questionnaires developed to test the theory of planned behavior are ideally suited for the development of behavioral interventions. Direct testing of the theory of planned behavior often involves pilot testing to determine which beliefs about a behavior are commonly held by a group of participants in order to develop a survey measure. Similar procedures can be used to identify salient beliefs that can be targeted when developing behavioral interventions. For example, a poverty reduction organization that wants to increase attendance at a job skills program it offers could ask potential clients

about the disadvantages and advantages of attending the program (behavioral beliefs), whether they think the significant others in their lives would approve or disapprove of their attendance (subjective norms), and the factors that might make attending the program easier or harder (control beliefs). On the basis of this information, the organization could then develop an intervention to target beliefs or concerns that prevent people from attending, such as an advertising program stressing the value of the outcomes (usable skills), or locating of the program delivery site on a bus route. When developing interventions, researchers can also compare people who engage in the behavior of interest (e.g., exercising regularly) to those who do not, to identify potential differences in salient beliefs regarding the behavior. Returning to the example of the job skills program, if the organization observes that single parents drop out of the program at higher rates than other clients, it could talk to single parents about the barriers they perceive and experience and redesign the program to include additional supports that will increase attendance for this group. If a common concern for the single parents is undependable childcare arrangements, resulting in low perceived behavioral control, then the organization could invite parents to bring their children and provide an on-site caregiver. The theory of planned behavior also provides a theoretical foundation for evaluating interventions. After all, we want to ensure that our interventions are not only grounded in theory, but also that they work! One of the ways the theory of planned behavior can guide these efforts is by providing information about the factors that contribute to the formation of behavioral intentions. Let us say that a large company develops a customer service training program for its staff members. Before management decides to spend money on training every department, they assess the program's effectiveness by comparing several departments that received the training to similar departments that did not. They wisely decide to survey both groups on their attitudes, subjective norms, and perceived

behavioral control in relation to customer service, as well as asking about intention to engage in service behaviors, and actual behavior over the past 30 days. If after six months management finds no difference in the rates of service behaviors between groups, the company could turn to the theory of planned behavior to help figure out why. By assessing any changes (or lack of changes) in the factors that contribute to a behavior of interest, researchers can determine what factors the intervention needs to target and can adjust accordingly. Conversely, if the intervention is successful, the researchers have an idea as to why.

Summing Up the Theory of Planned Behavior

Ajzen's (1985) theory of planned behavior focuses on the way in which attitudes and beliefs interact to create behavioral intentions and action. In scope, the theory of planned behavior can be described as a midlevel theory, designed to predict and explain behavioral intentions in a variety of situations.

The limited body of cross-cultural research suggests that the theory of planned behavior is generalizable to different cultural groups, although the pattern of relationships may be different. For example, Hagger and colleagues (2007) used the theory of planned behavior to compare exercise behaviors among youth in Estonia, Great Britain, Greece, Hungary, and Singapore. The authors hypothesized that the theory would predict behavior for all the groups. The authors found, as predicted, that the attitudes of significant others in the youths' lives (subjective norms) were more influential in the countries characterized as holding highly collectivist values, whereas the youth's own attitudes about exercise were more influential in individualistic countries. However, as predicted, behavioral intentions did predict behavior for youth in all the countries, suggesting that the theory of planned behavior can be adapted to specific cultural groups. The theory has also been applied to

understanding people's intention to disobey traffic laws by exceeding the speed limit in Turkish and Swedish samples (Warner, Özkan, & Lajunen, 2009). Given the ever increasing globalization of commerce, other studies have tested the applicability of the theory of planned behavior to topics such as e-commerce (Pavlou & Chai, 2002), environmentally friendly purchasing behaviors in Chinese and U.S. samples (Chan & Lau, 2002), and entrepreneurial intentions among students from Germany, India, Iran, Poland, Spain and the Netherlands (Moriano, Gorgievski, Laguna, Stephan, & Zarafshani, 2012), all with similar results.

Like cognitive dissonance theory, the theory of planned behavior provides a good example of the three functions of theory—organization, direction, and intervention. Of particular interest to applied social psychologists are the many potential applications of this theory.

What about testability? As indicated previously, the theory of planned behavior deals with the internal processes that may lead to behavioral intentions, which in turn may lead to behaviors—a chain of events that may be difficult to study in its entirety. Researchers have addressed this challenge by testing subsets of the variables included in the theory of planned behavior and tailoring their measures to each population of interest. The theory of planned behavior also treats perceived behavioral control as a proxy for actual behavioral control, which can limit the predictive and explanatory power of the theory when these perceptions are inaccurate. Meta-analyses support the predictive value of perceived behavioral control, though debate continues on how to measure perceived behavioral control and the extent of its influence (Armitage & Conner, 2001; Conner & Armitage, 1998).

Like cognitive dissonance theory, the theory of planned behavior is a parsimonious theory, even though it explains and predicts all manner of social behaviors. Overall, the theory of planned behavior has admirably fulfilled the three key functions of theory: organization, direction, and intervention.

Summary

The scientific process involves a continuing cycle of observation, theory development, deduction of hypotheses, and hypothesis testing (in research and applications). Theory development is central to this process—organizing our observations, directing our hypothesis testing, and guiding our efforts to intervene in solving real-world problems. The two theories discussed in this chapter—cognitive dissonance and the theory of planned behavior—illustrate the way in which the process works, with the original theory leading to hypothesis testing, observation of results, and theory revision (if needed). As you read through this book, you will discover the many different contexts where social psychology has been applied and the importance of theory to the development and implementation of intervention strategies designed to improve the functioning of individuals, groups, organizations, communities, and societies.