Soon after the first studies of selective perception, Leon Festinger (1957) proposed the theory of "cognitive dissonance." Since the 1950s, dissonance theory has generated hundreds of experiments, many of them among the most clever and entertaining in psychology. To understand the theory of cognitive dissonance and see how dissonance can influence judgment and decision making, consider a story told by Nathan Ausubel (1948; see also Deci, 1975, pp. 157-158).

A PARABLE OF COGNITIVE DISSONANCE

There was once a Jewish tailor who had the temerity to open his shop on the main street of an anti-semitic town. To drive him out of town, a gang of youths visited the shop each day, standing in the entrance and shouting, "Jew! Jew!"

After several sleepless nights, the tailor finally devised a plan. The next time that the gang came to threaten him, the tailor announced that anyone who called him a Jew would get a dime. He then handed dimes to each member of the gang.

Delighted with their new incentive, members of the gang returned the next day, shouting "Jew! Jew!", and the tailor, smiling, gave each one a nickel (explaining that he could only afford a nickel that day). The gang left satisfied because, after all, a nickel was a nickel.

Then, on the following day, the tailor gave out only pennies to each gang member, again explaining that he could afford no more money than that. Well, a penny was not much of an incentive, and members of the gang began to protest.

When the tailor replied that they could take it or leave it, they decided to leave it, shouting that the tailor was crazy if he thought that they would call him a Jew for only a penny!

WHY THE CHANGE?

Why would members of the gang harass the tailor for free but not for a penny? According to the theory of cognitive dissonance, people are usually motivated to reduce or avoid psychological inconsistencies. When the tailor announced that he was happy to be called a Jew, and when he changed the gang's motivation from anti-semitism to monetary reward, he made it inconsistent (or "dissonance-arousing") for gang members to please him without financial compensation. In the absence of a sufficiently large payment, members of the gang could no longer justify behaving at variance with their objective (which was to upset the tailor, not to make him happy).

BOREDOM CAN BE FUN

The same principle was demonstrated by Leon Festinger and Merrill Carlsmith (1959) in one of the most famous studies in all of social psychology. Sixty male undergraduates at Stanford University were randomly assigned to one of three experimental conditions. In the $1.00 condition, participants were required to perform tedious laboratory tasks for an hour, after which they were paid $1.00 to tell a waiting student that the tasks were interesting and enjoyable. In the $20.00 condition, students were paid $20.00 to do the same thing. And in the control condition, participants simply engaged in the tedious tasks.

What were the tasks? First, students spent half an hour using one hand to put 12 spools onto a tray, unload the tray, refill the tray, unload the tray again, and so on. Then, after thirty minutes were up, they spent the remainder of the hour using one hand to turn each of 48 pegs on a pegboard—one-quarter turn at a time! Each participant was seen individually, and the experimenter simply sat by, stopwatch in hand, busily making notes on a sheet of paper.

Once the student had finished his tasks, the experimenter leaned back in his chair and said:

I'd like to explain what this has been all about so you'll have some idea of why you were doing this. . . . There are actually two groups in the experiment. In one, the group you were in, we bring the subject in and give him essentially no introduction to the experiment. . . . But in the other group, we have a student that we've hired that works for us regularly, and what I do is take him into the next room where the subject is waiting—the same room you were waiting in before—and I introduce him as if he had just finished being a subject in the experiment. . . . The fellow who works for us then, in conversation with the next subject, makes these points: . . . It was very enjoyable, I enjoyed myself, it was very interesting. . . .

Following this explanation, the experimenter asked subjects in the control condition to rate how enjoyable the tasks had been. In the $1.00 and $20.00 conditions, however, the experimenter continued with his explanation:
The fellow who normally does this for us couldn’t do it today—he just phoned in, and something or other came up for him—so we’ve been looking around for someone that we could hire to do it for us. You see, we’ve got another subject waiting [looks at watch] who is supposed to be in that other condition. . . . If you would be willing to do this for us, we’d like to hire you to do it now and then be on call in the future, if something like this should ever happen again. We can pay you a dollar [or twenty dollars, depending on condition] for doing this for us, that is, for doing it now and then being on call. Do you think you could do that for us?

All $1.00 and $20.00 subjects agreed to be hired, and after they told the waiting person how enjoyable the tasks were, they were asked, among other things, to evaluate the tasks. What Festinger and Carlsmith (1959) found was that subjects in the $1.00 condition rated the tasks as significantly more enjoyable than did subjects in the other two conditions.

Festinger and Carlsmith argued that subjects who were paid only $1.00 to lie to another person experienced “cognitive dissonance.” According to Festinger (1957), people experience cognitive dissonance when they simultaneously hold two thoughts that are psychologically inconsistent (i.e., thoughts that feel contradictory or incompatible in some way). In this instance, the dissonant cognitions were:

1. The task was extremely boring.
2. For only $1.00, I (an honest person) just told someone that the task was interesting and enjoyable.

When taken together, these statements imply that subjects in the $1.00 condition had lied for no good reason (subjects in the $20.00 condition, on the other hand, had agreed to be “hired” for what they apparently considered to be a very good reason: $20.00).

Festinger (1957) proposed that people try whenever possible to reduce cognitive dissonance. He regarded dissonance as a “negative drive state” (an aversive condition), and he presented cognitive dissonance theory as a motivational theory (despite the word “cognitive”). According to the theory, subjects in the experiment should be motivated to reduce the inconsistency between the two thoughts listed above.

Of course, there wasn’t much subjects could do about the second thought. The fact was that subjects did tell another person that the task was enjoyable, and they did it for only $1.00 (and they certainly weren’t going to change their view of themselves as honest and decent people). On the other hand, the tediumness of the task afforded subjects some room to maneuver. Tediumness, you might say, is in the eye of the beholder.

Thus, Festinger and Carlsmith (1959) concluded that subjects in the $1.00 condition later evaluated the task as relatively enjoyable so as to reduce the dissonance caused by telling another person that the task was interesting and enjoyable. In contrast, subjects in the $20.00 condition saw the experimental tasks for what they were: crushingly dull. Subjects in that condition had no need to reduce dissonance, because they already had a good explanation for their behavior—they were paid $20.00.

SELF-PERCEPTION THEORY

The story does not end here, because there is another way to account for what Festinger and Carlsmith found. In the mid-1960s, psychologist Daryl Bern proposed that cognitive dissonance findings could be explained by what he called “self-perception theory.” According to self-perception theory, dissonance findings have nothing to do with a negative drive state called dissonance; instead, they have to do with how people infer their beliefs from watching themselves behave.

Bern’s self-perception theory is based on two main premises:

1. People discover their own attitudes, emotions, and other internal states partly by watching themselves behave in various situations.
2. To the extent that internal cues are weak, ambiguous, or uninterpretable, people are in much the same position as an outside observer when making these inferences.

A self-perception theorist would explain Festinger and Carlsmith’s results by arguing that subjects who saw themselves speak highly of the task for only $1.00 inferred that they must have enjoyed the task (just as an outside observer would infer). On the other hand, subjects in the $20.00 condition inferred that their behavior was nothing more than a response to being offered a large financial incentive—again, as an outside observer would. The difference between self-perception theory and dissonance theory is that self-perception theory explains classical dissonance findings in terms of how people infer the causes of their behavior, whereas cognitive dissonance theory explains these findings in terms of a natural motivation to reduce inner conflict, or dissonance. According to Bern, subjects in the Festinger and Carlsmith (1959) study could have experienced no tension whatsoever and still given the same pattern of results.

A great deal of research has been conducted comparing these theories (cf. Bem, 1972), but it is still an open question as to which theory is more accurate or more useful in explaining “dissonance phenomena.” For many years, researchers on each side of the issue attempted to design a definitive experiment in support of their favored theory, but each round of experimentation served only to provoke another set of
experiments from the other side. In the final analysis, it probably makes sense to assume that both theories are valid in a variety of situations (but following psychological tradition, I will use dissonance terminology as a shorthand for findings that can be explained equally well by self-perception theory).

As the next sections demonstrate, cognitive dissonance influences a wide range of judgments and decisions. Most dissonance-arousing situations fall into one of two general categories: predecisional or postdecisional. In the first type of situation, dissonance (or the prospect of dissonance) influences the decisions people make. In the second kind of situation, dissonance (or its prospect) follows a choice that has already been made, and the avoidance or reduction of this dissonance has an effect on later behavior.

AN EXAMPLE OF PREDECISIONAL DISSONANCE

A father and his son are out driving. They are involved in an accident. The father is killed, and the son is in critical condition. The son is rushed to the hospital and prepared for the operation. The doctor comes in, sees the patient, and exclaims, "I can't operate; it's my son!"

Is this scenario possible? Most people would say it is not. They would reason that the patient cannot be the doctor's son if the patient's father has been killed. At least, they would reason this way until it occurred to them that the surgeon might be the patient's mother.

If this possibility had not dawned on you, and if you consider yourself to be relatively nonsexist, there is a good chance you are experiencing dissonance right now (see Item #16 of the Reader Survey for a self-rating of sexism). Moreover, according to the theory of cognitive dissonance, you should be motivated to reduce that dissonance by behaving in a more nonsexist way than ever.

In 1980, Jim Sherman and Larry Gorkin used the female surgeon story to test this hypothesis. Sherman and Gorkin randomly assigned college students to one of three conditions in an experiment on "the relationship between attitudes toward social issues and the ability to solve logical problems." In the sex-role condition, students were given five minutes to figure out how the story of the female surgeon made sense. In the non-sex-role condition, students were given five minutes to solve an equally difficult problem concerning dots and lines. And in the control condition, students were not given a problem to solve. In the sex-role and non-sex-role conditions, the experimenter provided the correct solution after five minutes had passed (roughly 80 percent of the subjects were not able to solve the assigned problem within five minutes).

Next, subjects were told that the experiment was over, and they were presented with booklets for another experimenter's study about legal decisions (the students had been told previously that they would be participating in "a couple of unrelated research projects"). Subjects were informed that the principal investigator of the other study was in South Bend, Indiana, and that they should put the completed booklets in envelopes addressed to South Bend, seal the envelopes, and drop them in a nearby mailbox. Then subjects were left alone to complete the booklet on legal decisions.

In reality, the experiment on legal decisions was nothing more than a way to collect information on sexism without subjects detecting a connection to the first part of the experiment. Subjects read about an affirmative action case in which a woman claimed that she had been turned down for a university faculty position because of her gender. Then they indicated what they thought the verdict should be, how justified they thought the university was in hiring a man rather than the woman, and how they felt about affirmative action in general.

Sherman and Gorkin (1980) found that, compared with subjects in the control group and subjects who were presented with the problem concerning dots and lines, subjects who had failed to solve the female surgeon problem were more likely to find the university guilty of sexual discrimination, less likely to see the university as justified in hiring a male for the job, and more supportive of affirmative action policies in general. In other words, after displaying traditional sex-role stereotypes, students tried to reduce their dissonance by acting more "liberated" (or, in terms of self-perception theory, trying to show themselves that they were not sexist). This method of dissonance reduction, called "bolstering," has also been used successfully to promote energy conservation. S. J. Kantola, G. J. Syme, and N. A. Campbell (1984) found that heavy users of electricity cut their consumption significantly when they were informed of their heavy use and reminded of an earlier conservation endorsement they had made.

OTHER EXAMPLES OF PREDECISIONAL DISSONANCE

Predecisional dissonance can also influence consumer behavior, as shown by Anthony Doob and his colleagues (1969). These researchers matched 12 pairs of discount stores in terms of gross sales, and they randomly assigned each member of a pair to introduce a house brand of mouthwash at either $0.25 per bottle or $0.39 per bottle. Then, after nine days, the store selling the mouthwash at $0.25 raised the price to $0.39 (equal to the price at the other store). The same procedure was followed with toothpaste, aluminum foil, light bulbs, and cookies (and, in general, the results for these items paralleled the results using mouthwash).

What Doob et al. (1969) found was that, consistent with cognitive dis-
sonance theory, stores that introduced the mouthwash at a higher price tended to sell more bottles. In 10 of 12 pairs, the store that introduced the mouthwash at $0.39 later sold more mouthwash than did the store that initially offered the mouthwash for $0.25.

Doob and his associates explained this finding in terms of customer "adaptation levels" and the need to avoid dissonance. They wrote: "When mouthwash is put on sale at $0.25, customers who buy it at that price or notice what the price is may tend to think of the product in terms of $0.25. They say to themselves that this is a $0.25 bottle of mouthwash. When, in subsequent weeks, the price increases to $0.39, these customers will tend to see it as overpriced, and are not inclined to buy it at this much higher price" (p. 350). Furthermore, according to dissonance theory, the more people pay for something, the more they should see value in it and feel pressure to continue buying it. This principle is true not only with purchases, but with any commitment of resources or effort toward a goal (for another example, see Aronson & Mills, 1959). The net result is similar to that found with many of the behavioral traps discussed in Chapter 21.

EXAMPLES OF POSTDECISIONAL DISSONANCE

Postdecisional dissonance is dissonance that follows a decision rather than precedes it. In the mid-1960s, Robert Knox and James Inkster studied postdecisional dissonance by approaching 141 horse bettors at Exhibition Park Race Track in Vancouver, Canada: 72 people who had just finished placing a $2.00 bet within the past thirty seconds, and 69 people who were about to place a $2.00 bet in the next thirty seconds. Knox and Inkster reasoned that people who had just committed themselves to a course of action (by betting $2.00) would reduce postdecisional dissonance by believing more strongly than ever that they had picked a winner.

To test this hypothesis, Knox and Inkster (1968) asked people to rate their horse's chances of winning on a 7-point scale in which 1 indicated that the chances were "slight" and 7 indicated that the chances were "excellent." What they found was that people who were about to place a bet rated the chance that their horse would win at an average of 3.48 (which corresponded to a "fair chance of winning"), whereas people who had just finished betting gave an average rating of 4.81 (which corresponded to a "good chance of winning"). Their hypothesis was confirmed—after making a $2.00 commitment, people became more confident that their bet would pay off.

This finding raises an interesting question: Does voting for a candidate increase your confidence that the candidate will win the election? (See Item #36 of the Reader Survey for your answer.) In 1976, Oded Frenkel and Anthony Doob published a study exploring this question.

Frenkel and Doob used the same basic procedure as Knox and Inkster (1968); they approached people immediately before and immediately after they voted. In one experiment they surveyed voters in a Canadian provincial election, and in another they queried voters in a Canadian federal election. In keeping with the results of Knox and Inkster, Frenkel and Doob (1976, p. 347) found that: "In both elections, voters were more likely to believe that their candidate was the best one and had the best chance to win after they had voted than before they voted."

CONCLUSION

As the opening story of the Jewish tailor shows, cognitive dissonance theory can be a formidable weapon in the hands of a master. Research on cognitive dissonance is not only bountiful and entertaining, it is directly applicable to many situations. For example, retail stores often explicitly label introductory offers so as to avoid the kind of adaptation effects found by Doob et al. (1969). Similarly, many political campaigns solicit small commitments in order to create postdecisional dissonance (this strategy is sometimes known as the "foot-in-the-door technique"). In the remainder of this book, we will discuss several other applications and findings from cognitive dissonance theory.

One of the leading authorities on dissonance research is Elliot Aronson, a student of Festinger and an investigator in many of the early dissonance experiments (for readers interested in learning more about the theory of cognitive dissonance, a good place to begin is with Aronson, Mills, 1959). The net result is similar to that found with many of the behavioral traps discussed in Chapter 21.

...
It is well known that changes in attitude can lead to changes in behavior, but research on cognitive dissonance shows that changes in attitude can also follow changes in behavior. According to the theory of cognitive dissonance, the pressure to feel consistent will often lead people to bring their beliefs in line with their behavior. In Chapter 3, we will see that, in many cases, people also distort or forget what their initial beliefs were.