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Cognitive Dissonance Theory

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ABSTRACT

Cognitive dissonance theory has been a major pillar of social psychology for decades. In this chapter, I discuss some of the reasons that Festinger's straightforward proposition about the relationship among cognitions created the pointed controversy that propelled it into the forefront of the discipline. Theories with the broad approach of cognitive dissonance often need modification and this chapter traces that journey. I then present the New Look and Self-Standards models that attempted to integrate extant data and changed our understanding of the motivational foundation that underlies dissonance. Current perspectives on cognitive dissonance focused on vicarious dissonance arousal by which individuals experience dissonance based on the behavior of fellow group members. Finally, the chapter examines the potential use of personal cognitive dissonance for optimizing the effectiveness of psychotherapy and the use of vicarious dissonance for increasing positive behaviors to protect health and wellbeing.

IN THE BEGINNING

The theory of cognitive dissonance has been a staple of social psychology for more than half a century. In this chapter, I will present my own perspective on the birth of dissonance and then take the responsibility for two alternative approaches that modified our view of the meaning of cognitive dissonance: the New Look model (Cooper and Fazio, 1984) and the subsequent Self-Standards model of dissonance (Stone and Cooper, 2001). The story begins with Festinger's observations about cognitive inconsistency and will move to our newer views of the motivation underlying cognitive dissonance.

The late Leon Festinger molded the original theory of cognitive dissonance from his interest in people's susceptibility to field forces (Lewin, 1951), including pressures from groups. He had published a number of major statements about the pressures that groups place on individuals to achieve attitudinal consensus (Festinger, 1950). In 1954, he shifted his focus to the study of the individual. Instead of viewing pressure from the vantage point of the group's needs and goals, he took the perspective of the individual who was driven to use others as a benchmark to measure his or her own standing in a group. He proposed that people were driven to

compare their opinions and abilities with similar others and that there was pressure either to conform to the attitudes of similar others or to convince others to hold attitudes similar to oneself (Festinger, 1954).

In the theory of cognitive dissonance, Festinger (1957) completed the task of viewing the world from the perspective of the individual. In dissonance theory, cognitive consistency was represented inside the head of the person. To think of mental life as a set of cognitive representations was a radical departure from the mainstream view of the 1950s. For the first time, people's views of their social world, their appraisals of their fellow group members, their own opinions about the world, and their observations of their own and others' behaviors could all be projected onto a common screen. All were cognitive representations inside the head. Moreover, some of those cognitive representations bore a relationship to each other. The birth of cognitive dissonance theory occurred at that instant. The new theory – cognitive dissonance – became the most productive of all of his creative insights, and dissonance theory charted a research agenda that would last for half a century.

COGNITIVE DISSONANCE IN A LEARNING THEORY WORLD

The major tenets of the original version of dissonance theory are well known and straightforward. The state of cognitive dissonance occurs when people perceive that a pair of cognitions is inconsistent. Formally, Festinger defined a pair of cognitions as dissonant if the actor believed that one cognition followed from the obverse of the other. He postulated that dissonance is experienced as an unpleasant drive and, like other unpleasant drive states, needs to be reduced. The reduction occurs by changing the cognition least resistant to change or by adding cognitions that minimize the perceived magnitude of the discrepancy. In keeping with Festinger's philosophical assumption that the dissonance battle was played out inside the head of the perceiver, he reasoned that inconsistency itself is a psychological state – that is, two cognitions are dissonant if the perceiver *believes* they are dissonant. The psychology of the perceiver, not the philosophical rules of logic, determines the existence of dissonance.

The idea that people prefer consistency to inconsistency was not new. Fritz Heider (1946) and Theodore Newcomb (1956) had written about such ideas previously and they were also consistent with field theoretical notions of Festinger's advisor, Kurt Lewin. To my knowledge, Festinger's 1957 book outlining his ideas did not raise controversy until the publication two years later of Festinger and Carlsmith's (1959) now classic study showing that people experienced dissonance after an attitude-inconsistent statement. As we know, Festinger and Carlsmith had people participate in a task that was specifically designed to be tedious and dull. Those participants then agreed to make a statement to a person, who they believed was a fellow student, extolling the excitement of the task. Few would have had difficulty with the finding that making the statement about the excitement of the task induced people to change their attitudes in the direction of their statement. If we accept the premise that people do not like inconsistency and that they are motivated to reduce the incongruence between their behavior and attitude, then the finding makes sense and would have been predicted by any consistency theory.

The provocative element in Festinger and Carlsmith's (1959) research was the role played by the magnitude of the incentive that participants were offered to make a public statement that was contrary to their beliefs. Some were offered a large incentive while others were offered a meager incentive. Festinger and Carlsmith reasoned that the large incentive would be a sufficiently important cognition consistent with the behavior to keep dissonance low, whereas people offered a small incentive would still be in the throes of dissonance. The finding that behavior associated with small incentives could create more change than behavior associated with large incentives had the effect of prodding a large sleeping animal with a small stick. It woke the animal and, to continue the metaphor, allowed the provocateur not only to be noticed but, in the end, to assume a leadership position in the metaphorical jungle.

The year 1957 was the realm of learning theories. The number of people considering themselves social psychologists was scant. The "science" of psychology was focused on the rules of sensation, perception, and learning. The last of these topics was particularly vibrant, with lively debates among followers of Hull, Spence, Tollman, and Skinner filling the pages of the professional literature. They disagreed about many issues such as the importance of habits and the proper role of drive states. What they all agreed upon, however, was the role of rewards and reinforcements. Although they conceptualized them differently, larger rewards led to more behavior change; smaller rewards led to less change. This was the gospel according to learning theory.

Dissonance theory, and Festinger and Carlsmith's findings in particular, put the brakes on that assumption. The playing field changed. Suddenly, attitudinal and behavioral change were at the service of smaller rewards rather than larger ones. Large incentives merely reduced the dissonance drive state and led to less change than smaller rewards, or perhaps no rewards at all. We should also not underestimate Festinger's use of the drive state as the motivation for change. By positing that people were motivated by what was essentially a drive, he positioned dissonance theory alongside the major learning theories in which drive-reduction played the critical role. It is unclear whether Festinger ever believed that we would ever find evidence for the drive concept, but by using it as the motivational metaphor, his findings were instantly recognized as a challenge to all who wanted to see social behavior as merely a carryover of the behavioral rules that applied to rats and pigeons.

Other findings continued to goad the conventional learning theory wisdom. The more people suffered, the more they liked what they suffered to attain (Aronson and Mills, 1959). The less punishment with which children were threatened to refrain from playing with an attractive toy, the more they devalued the toy (Aronson and Carlsmith, 1963) and the longer they refrained from playing with it (Freedman, 1965). Learning theorists rose to the challenge of these findings, criticizing the methodology, the conclusions, and the theory. Journals, including the new *Journal of Personality and Social Psychology,* were filled with debates about the intriguing new ideas predicted from cognitive dissonance theory. The early controversial years of provocative dissonance results were followed by challenges from critics, and followed again by studies from a growing number of dissonance researchers. By the early 1970s, dissonance had become a "movement" and very few questioned the existence of dissonance as a powerful principle of human social behavior.

TROUBLE IN DISSONANCE HEAVEN

My own activity as a dissonance researcher came from an unlikely source. I attended graduate school at Duke University, partly to study with Jack W. Brehm, one of Festinger's original students and the researcher responsible for the very first published experiment based on dissonance theory (Brehm, 1956). However, Jack was busy with his new theory of psychological reactance and I was assigned to work with Edward E. Jones, who was soon to become a towering figure in the world of person perception and attribution. Nonetheless, Jones was a fan of dissonance research and was perplexed by a study that had been published by Rosenberg (1965) that seemed to spell trouble for the fledgling theory.

Rosenberg had argued that the reason for Festinger and Carlsmith's startling result was that participants had been worried that they were being evaluated on their level of psychological consistency. He coined the term *evaluation apprehension* to capture participants' concern that the person who had asked them to say that the task was fun was also privy to their attitudinal confessions when they responded to the dependent measure. Rosenberg provided evidence that attitude change was a direct function of level of reward (i.e., more attitude change for higher compensation) when the experimenter who collected the dependent measure was not in any way connected to the person who made the request for the counterattitudinal behavior. Jones suspected that the key element missing in Rosenberg's critical study was the element of choice. Although Festinger had not paid much attention to the need for a person to *choose* to engage in counterattitudinal behavior, he had built it into his original experiment (Festinger and Carlsmith, 1959). So, my advisor sent me out to devise a study to show that how people perceived their freedom to engage in attitude discrepant behavior made all of the difference in the arousal of dissonance.

The results of our study were published as Linder, Cooper, and Jones (1967) – my very first published dissonance article. In two experiments, we showed that attitude change can be a direct function of incentive magnitude *or* an inverse function, depending on whether dissonance is ever aroused by the procedure. If people perceive that they were free to accept or decline the invitation to make a counterattitudinal statement, then dissonance is aroused. We found that when people had been given the freedom to decline, then just like Festinger and Carlsmith had found, attitudes were an inverse function of incentive magnitude: the lower the reward, the greater the attitude change. It is only in the absence of dissonance – brought about by the absence of decision freedom – that attitude change became a direct function of the magnitude of the reward. In other words, reinforcement works to elicit attitude change but is trumped by dissonance arousal. When dissonance exists – in this case, facilitated by the perception of decision freedom – it provides the underpinning for attitude change following counterattitudinal advocacy. (Later, Jones told me that I got his idea completely wrong, ran a different experiment from the one he thought I was running, but had no complaints about the outcome!)

THE THEORY EVOLVES: THE SEARCH FOR MODIFIERS BECOMES THE NEW LOOK MODEL OF DISSONANCE

A broad-stroke theory almost always needs modifiers. Many of the studies in the first decade of dissonance theory did exactly that. Linder et al.'s (1967) results were of that genre. Dissonance is aroused and leads to attitude change when decision freedom is high but not when it is low. We thus learned that choice was a modifier of dissonance. Carlsmith et al. (1966) as well as Davis and Jones (1960) had shown that people need to feel committed to their counterattitudinal behavior. If participants thought they would have a chance to "take back" their counterattitudinal statements, then dissonance would not occur. We thus learned that commitment was a modifier of cognitive dissonance.

A few years later, Steve Worchel and I wondered aloud whether *any* counterattitudinal statement expressed in *any* circumstance produced dissonance or whether something had to happen as a result of the behavior. Put another way, would an attitude discrepant statement uttered in the dark of one's own residence with no one to hear the remark cause the arousal of dissonance? We suspected that the solitary utterance would not lead to dissonance. We designed a study that replicated the procedure of Festinger and Carlsmith's (1959) with the added factor of whether or not the student in the waiting room seemed convinced by the participant's statement that the task was fun and interesting. We predicted and found that the inverse

relationship between incentive magnitude and attitude change following counterattitudinal behavior occurred only when there was a consequence pursuant to the behavior – in this case, misleading a fellow student to have a false expectation (Cooper and Worchel, 1970). We had found another modifier: inconsistent cognitions lead to dissonance in the presence, but not the absence, of an unwanted consequence.

In 1980, a visiting professor at Princeton University, Paul Secord, expressed his consternation about the state of play of dissonance theory. He told me that he loved the theory when it was broad, simple, and comprehensible – that is, inconsistent cognitions lead to the state of dissonance. However, with two decades of research under the dissonance tent, he felt he needed a scorecard to know when it is true that inconsistent cognitions arouse dissonance and when it is not. He expressed the thought that the modifiers of dissonance had become the face of the theory and that someone needed to make sense of the modifiers. That was the challenge that my former graduate student, Russell Fazio, and I took up in the paper that became our signature modification of dissonance theory: the "new look" (Cooper and Fazio, 1984).

The New Look model of dissonance

Fazio and I examined the published data. Secord had a point. Inconsistent cognitions aroused dissonance

- *but only* if the actions were freely chosen;
- *but only* if the actor was committed to the discrepant cognition;
- *but only* if there was an aversive event following the dissonance;
- *but only* if the aversive consequences were foreseeable.

And the list went on. The theory was sorely in need of a cure for the *but onlys*.

It occurred to us that the important quest to find the modifiers of dissonance had contributed to a more meaningful understanding of dissonance. Looked at from a slightly different perspective, the research of the prior two decades had transformed dissonance into a different kind of theory. Rather than maintaining that dissonance is a function of inconsistency, the data had actually called out for a new statement about the meaning of dissonance. The data were there. The *New Look* just had to tell the new story in different words.

As Festinger had surmised, dissonance is an arousing, uncomfortable tension state that motivates change. However, it is not brought about by cognitive inconsistency per se, but rather by the perception that one is responsible for bringing about an unwanted event. That perception, rather than the perception of inconsistency, is what results in the experience of cognitive dissonance.

Dissonance arousal and dissonance motivation

According to the New Look, dissonance begins with a behavior. In order for that behavior to lead to a cognitive or attitude change, a set of processes must unfold that can best be divided into two stages: *dissonance arousal* and *dissonance motivation*. Dissonance arousal occurs when people take responsibility for bringing about an aversive event. This conclusion may come about quickly, but not easily. There are several decision points that need to be crossed in order for a behavior to bring about dissonance arousal.

First, a behavior has to be perceived to have an unwanted consequence. Almost every behavior has a consequence. The question at issue for the actor is whether the consequence is unwanted and, if so, how unwanted is it? For example a person may favor a particular solution to the healthcare dilemma in the United States but advocate for a bill that is a bit different. If the person successfully convinces her friends, colleagues, or senators to support the bill, is this consequence sufficiently unwanted to lead to dissonance? Here, we argued that the consequence has to

fall outside a person's "latitude of acceptance" of possible positions that she can accept in order for dissonance to be aroused, otherwise dissonance will not follow from the behavior. Empirical evidence supports this first link in the dissonance process (Fazio et al. 1977).

The second decision point is the acceptance of *personal responsibility* for the consequences of the behavior. We defined responsibility as a combination of two factors: freely choosing the behavior in question and the ability to foresee the consequences of that behavior. Accepting responsibility leads to dissonance; denial of responsibility allows people to avoid the unpleasant state of dissonance. Decision freedom is crucial because it is necessary for the acceptance of responsibility

Although decision freedom is necessary, it is not sufficient to lead to acceptance of responsibility. Imagine that the healthcare advocate in our example purchased a book that examined the potential uses and abuses of privatized healthcare. After the purchase, she found out that the proceeds from the book were donated to an advocacy group that condemned any government-supported healthcare plan. Would our advocate feel personally responsible for supporting a group that she finds unacceptable and contrary to her values? The New Look model argues that the answer is no. Despite the fact that she really gave money in support of the disliked group, she had no way to foresee that her actions would lead to the unwanted consequence. Foreseeability, then, is the second element that combines with decision freedom to determine whether one is responsible for an aversive event (Goethals et al., 1979). It is the acceptance of personal responsibility that provides the necessary and sufficient link to dissonance arousal.

On the radical nature of the New Look

We did not intend the New Look to be a radical departure from Festinger's original notion, but we soon saw that it was. The arousal of dissonance no longer depended on what had been its major tenet – that is, the presence of inconsistency. It is true that inconsistency is typically a reasonable proxy for the active ingredients that lead to dissonance arousal. When people behave in ways that are inconsistent with cherished beliefs, they are typically simultaneously taking personal responsibility for bringing about at least the potential for an unwanted event. They may never find out if someone will be convinced by an attitude-discrepant statement, but the potential for bringing about an unwanted event is apparent. Thus, according to the New Look, acting inconsistently often brings with it the features that are actually the active ingredients in the dissonance process. Similarly, when people choose one attractive item over another in the free-choice research paradigm (Brehm, 1956) of dissonance, they are responsible for the aversive consequence: that is, rejecting all of the attractive elements of the unchosen alternative and accepting all of the unattractive features of the chosen alternative. And when people in an effort justification study (Aronson and Mills, 1959) choose to suffer in order to attain a goal, they are responsible for engaging in the unpleasant work, embarrassment or effort that is, in itself, an unwanted consequence. The problem with relying on inconsistent cognition as the underpinning of cognitive dissonance is that it requires a long list of caveats and exceptions (the *but onlys)* that moderate the effect. The underpinnings of the New Look model permit a more comprehensive view of the process.

Testing the New Look

Most of the work on the New Look model of dissonance preceded the publication of the New Look. As explained, the New Look was a way of understanding the theoretical underpinnings of dissonance, given what we already knew from published work on dissonance.

I would postulate that there were four major categories of findings on which the New Look relied. First, research must show that people experience dissonance arousal when they choose to engage in attitude-discrepant behaviors and not when they were forced to do so. This finding had already been well established prior to the New Look and continues to be a reliable research result. Second, attitude discrepant behavior must be shown to lead to dissonance when and only when the potential for aversive consequences exists. We had already shown this phenomenon on many occasions prior to the New Look model. Cooper and Worchel (1970) were the first to demonstrate it, but replications of the effect abound (Cooper et al., 1974; Goethals and Cooper, 1972; Goethals et al., 1979; Norton et al., 2003). (In fairness, this feature has emerged as a more controversial issue with some research questioning not its importance but its ubiquity [Harmon-Jones et al., 1996]). A third critical feature of the model was that dissonance arousal relies on the consequences of a behavior being foreseeable at the time they commit to their behavior. This, too, was well established (Cooper and Goethals, 1974; Goethals and Cooper, 1972; Goethals et al. 1979).

The fourth crucial feature had not been demonstrated when the model was first introduced. The responsibility-for-consequences model predicts that any behavior – not just inconsistent behavior – will arouse cognitive dissonance if it foreseeably leads to an aversive event. The radical nature of the New Look lay in its position that inconsistency was not necessary for dissonance to occur. In a study designed to collect evidence for this hypothesis, Scher and Cooper (1989) had people commit to attitude-consistent or attitude-inconsistent behavior. A cover story led participants to believe that a university committee was considering a policy in which student health records would become open to parents to peruse. Some were asked to write counterattitudinal essays that supported this unpopular and unwanted policy while others were asked to write proattitudinal essays. The students were led to believe that the essays might either convince the committee or might boomerang and convince the committee of the opposite of what was written. In this way, the behavior (counterattitudinal versus proattitudinal) was manipulated orthogonally with the side of the issue that the committee was likely to believe (a desired versus an unwanted consequence of the essay).

When attitudes were measured following the essay, the results showed an effect for the consequence of the essay and not for the discrepancy of the arguments. Counterattitudinal advocacy led to attitude change only if it had the potential to produce an aversive event, thus replicating the finding of Cooper and Worchel (1970). But so did proattitudinal advocacy. Writing in the direction of their own beliefs, students who discovered that their essays were likely to produce a boomerang and thus help to bring about an unwanted event changed their attitudes. The consequence and not the inconsistency of behavior and attitude produced dissonance arousal that ultimately motivated attitude change.

Is dissonance arousing?

One of the hallmarks of Festinger's brilliance was his adoption of the drive model to introduce the theory of cognitive dissonance. Clark Hull, Kenneth Spence and their colleagues were debating the proper mix of drives and habits to understand how organisms learn. M.L. Skinner (1953) had made the unique proposal that drives were not necessary at all to understand learning. The drive concept was highly accessible and controversial as Festinger introduced cognitive dissonance to the community.

By postulating a drive state underlying the dissonance process, he made his work relevant to the learning community both inside and outside of social psychology. By postulating that dissonance reduction in social behavior is often an inverse function of the

magnitude of incentive and reward, he upset the foundation that the learning community had laid for social psychologists. I believe that the drive and reinforcement notions were both key to the influence that dissonance had in the 1950s. I was never certain that Festinger ever expected the drive concept to receive a direct test. It was a virtual metaphor, a way to think about the process that had the added benefit of making his fledgling theory both noticed and controversial. I believe he was pleasantly surprised when subsequent research found that he had guessed correctly.

Converging evidence has now demonstrated that dissonance has, as Festinger (1957) called it, "drive-like properties." Waterman and Katkin (1967) reasoned that if dissonance was a drive, then it should have the effect that drives typically have on learning: it should facilitate simple learning and interfere with complex learning. Waterman and Katkin (1967) found evidence for the former but not for the latter. That evidence was supplied a few years later by Pallak and Pittman (1972) who found that dissonance following counterattitudinal advocacy interfered with people's ability to learn a complex task.

Using a different logic, Zanna and Cooper (1974) showed that if people believed their arousal following counterattitudinal advocacy was due to something other than the advocacy (such as a pill), they did not show attitude change following the advocacy. Apparently, attitude change is directed toward lowering the uncomfortable drive state. If the arousal was thought to be due to some other agent, no attitude change ensued. Moreover, reducing the degree of bodily arousal by means of a sedative was shown to decrease attitude change following counterattitudinal advocacy while ingesting an arousing agent was shown to increase attitude change (Cooper et al. 1978)

A third line of evidence was the measurement of arousal following counterattitudinal advocacy. Croyle and Cooper (1983) found skin conductance differences between participants in high dissonance and low dissonance conditions. Losch and Cacioppo (1990) replicated that finding and also showed that dissonance reduction is directed at reducing the uncomfortable affect that dissonance produces. Elliot and Devine (1994) added to the literature on the uncomfortable motivational state by asking participants how they felt following a dissonance-arousing act. Participants reported significantly more negative discomfort than participants in low dissonance conditions.

The New Look complements the original version of dissonance theory by accepting the notion that cognitive changes are motivated by psychological discomfort and physiological arousal. What may have begun as a metaphor to predict change has received substantial support from a variety of research perspectives. Dissonance, we believe, is motivated by being responsible for brining about an unwanted consequence of behavior. It is experienced as discomfort and motivates cognitive change.

SELF-STANDARDS: MOVING THE NEW LOOK FORWARD

The New Look model of dissonance was not without its critics (see Harmon-Jones and Mills, 1999). Elliot Aronson, one of dissonance theory's most innovative pioneers, advocated a perspective on dissonance that focused on an individual's violating his or her concept of self. Good people expect that they will do good things; bad people expect they will do bad things and when the twain mixes, dissonance is aroused. Early work (e.g., Aronson and Carlsmith, 1962) had shown that people who expect to fail will choose to fail as a way of staying consistent with their self-concept. To do otherwise would result in the unpleasant inconsistency known as dissonance. Aronson (e.g., 1992; Thibodeau and Aronson, 1992) argued that inconsistency with self was sufficient to produce dissonance and the New Look's insistence on aversive consequences was unnecessary.

In order to demonstrate that dissonance can occur in the absence of aversive events, Thibodeau and Aronson (1992) introduced what they called the 'hypocrisy paradigm'. In this research, people were asked to make statements that were consistent with their private beliefs but were reminded of times in the past that they had acted inconsistently. The general finding from this research is that dissonance occurs as a function of the proattitudinal statement when the statements are made freely and participants are made mindful of their prior inconsistent behavior. Typically, participants engage in subsequent behavior that is more in line with their proattitudinal advocacy. For example, college students in a study by Stone et al. (1994) were asked to make public statements to a group of high school students advocating the use of condoms when engaging in sex. This speech was consistent with the participants' attitudes about the use of condoms. In a key hypocrisy condition, the participants were made mindful of occasions in which they had not practiced what they had just preached – that is, they were asked to recall times that they had not used condoms. When the study was allegedly finished, the participants were allowed to purchase as many condoms as they wished. The results showed that when making the statement under conditions of free choice and with the reminder of their own discrepant behavior, participants purchased more condoms than in any other condition in the experiment. In order to reduce their dissonance, participants exaggerated their behavior to bring it in line with their attitude and their proattitudinal statement.

This intriguing line of research raised the question of the necessity of an aversive event for the dissonance process (Aronson, 1992). On the other hand, it seemed to me (Cooper, 1992) that the aversive consequence was intrinsically enmeshed in the mindfulness manipulation. Being reminded of not having worn condoms or, in other studies, being reminded of times that you wasted water (Dickerson et al., 1992) or failed to recycle (Fried and Aronson, 1995) are all aversive consequences. They happen to be in the past, but they are consequences nonetheless. The results seemed consistent with the New Look model.

The set of hypocrisy studies accomplished a great deal, however. It added to the number of ways that researchers can investigate dissonance arousal; the dissonance resulting from hypocrisy is frequently channeled to behavior change rather than the more typical attitude change and the behavior change is usually in a direction that promotes constructive social and personal values – an issue that we will return to later in this chapter. From a theoretical standpoint, the studies laid bare an issue about which we had said little in the New Look model: What do we mean by an aversive consequence?

In the New Look, Fazio and I defined an aversive consequence as an occurrence that one would rather not have occur. That is, if you can think of something you would not like to bring about, such as convincing a person to believe in an unwanted position or suffering embarrassment or being stuck with unattractive features of a choice alternative, then that is what we meant by "aversive consequence." We believed that there was no adequate a priori definition of an aversive consequence. Whatever a person thought was unwanted and yet acted in a way that caused that event to occur was grist for the dissonance mill. We had no disagreement with Aronson's (1969) notion that violations of self-expectancies can cause dissonance – as long as people find it aversive to violate their self-expectancies. The New Look differed from self-expectancy view because we did not believe that self-expectancy violations were the *only* route to dissonance. Whatever a person finds aversive or unwanted, whether it is a violation of self-expectancy or a behavior that brings about any other unwanted consequence fits the New Look's understanding of an aversive event and serve to arouse cognitive dissonance.

Jeff Stone, who had been a graduate student with Elliot Aronson and then a postdoctoral fellow working with me, helped to integrate the New Look's emphasis on *any* aversive consequence and self-expectancy's emphasis on violations of the self as necessary for dissonance. In what I believe to be the most recent full model of dissonance processes, Stone and I (Stone and Cooper, 2001) advanced the Self-Standards model of dissonance. What was missing in the New Look was an explicit way to judge the meaning of a behavior. In Stone and Cooper (2001) we argued that what arouses dissonance is an initial assessment of a behavior against a particular behavioral standard. All behaviors have consequences. To judge the desirability of those consequences requires a comparison to a standard of judgment. In the Self-Standards model we spelled out those judgment standards.

Normative and personal standards

We reasoned that there are two major categories of standards that a person can use to assess the meaning of the consequences of his or her behavior – normative and personal. There are some outcomes that we can create in the world that most people would agree are of a particular valence. Most people would agree that contributing to a charity or helping a roommate study for an exam are positive events. We know there may be occasions in which helping a roommate and/or contributing to charity may have complicated mixed motives, but by and large, such actions are considered positive. Similarly, there are consequences that most people would agree are negative or undesired. Running into someone on the street and knocking him down would be generally aversive. So, too, is lying to someone, especially when the person believes you and is influenced by your lie (e.g., Festinger and Carlsmith, 1959). Granted, there may be some odd times when those outcomes are positive, but, typically, most people would agree they are negative.

When a standard of judgment is based on a perception of what *most people* perceive to be foolish, immoral, or otherwise negative, we can say people are using a *normative standard of judgment.* The main thrust of this definition is that the standards are based on a shared understanding of good and bad, wanted or unwanted, foolish or clever (Higgins, 1989). The other broad category of standards of judgment are those that are based on the unique characteristic of the individual. These are *personal standards of judgment.* They refer solely to the judgments people make when they consider only their own values or desires. Consider a casual runner who runs a mile in 4.5 minutes. By the standards of most casual runners, this is an extraordinary experience. However, this particular runner expected to cross the mile marker in closer to 4 minutes. Regardless of whether it is rational or not, regardless of whether others would agree with this runner's judgment, the outcome fails to meet the runner's personal standard of judgment. The achievement, when compared with the runner's personal standard of judgment, is not an achievement at all but an unwanted, aversive event.

The self-standards dissonance model asserts that people can use either a normative standard of judgment or a personal standard of judgment in order to assess their behavior. Which standard they use is a function of the standard that is accessible at the time of their behavior. If the situation makes normative standards accessible, then people will use their concept of what most people would find desirable as the way to assess the consequences of their behavior. Conversely, if people are induced to have their personal standards accessible, then they will use their self-expectations as the standard of judgment to determine whether or not an outcome is aversive.

Personal and normative self-standards can also be chronically accessible for particular individuals. If a person thinks of herself as being a deceitful person, she will not be upset at all by convincing a waiting fellow

student that a boring task was actually interesting. She carries with her a chronically available self-standard and compares her behavior to that standard. Another person may think of herself as honest and carry that self-standard as a chronic measuring stick against which to judge her behavior. She would be in the throes of dissonance after agreeing to dupe a fellow student. For these two hypothetical students, their judgment is measured against a personal standard that overrides the effect of the social circumstance.

The predictions of the self-standard model have been supported in a number of studies (Weaver and Cooper, 2002; Stone, 1999; Stone and Cooper, 2003). When people compare their behavior to normative standards of judgment, then they assess consequences to be aversive in a manner similar to most people in the culture. We would not expect dissonance to be moderated by their sense of self – for example, their level of self-esteem. By contrast, when ideographic dissonance is aroused by comparison to personal standards of judgment, then what is considered aversive varies by self-esteem. People with a high sense of self-esteem expect to make good and rational choices. They are upset when their choices lead to a consequence that is negative. When people with chronically low self-esteem make choices, they expect those choices to have negative results and are not upset by what other people would consider negative outcomes.

In a study reported by Stone (1999), participants were divided by median split into those with high and low self-esteem. They were asked to make choices between two attractive music albums. Half of the students were primed to make their personal standards accessible while the other half were primed to have their normative standards accessible. Following the decision of which album to keep, the participants rerated the albums. The prediction was that normative-primed participants would experience dissonance whenever they made a difficult choice and would show the classic dissonance finding of raising their evaluation of the chosen album and reducing the attractiveness of the rejected album. Stone predicted that self-esteem would not enter into the findings because these students were measuring the consequences of their behavior against a normative standard of judgment. By contrast, self-esteem was expected to play a role when participants had been primed to use their personal standards. People with high self-esteem are far more likely than people with low self-esteem to believe that elements discrepant with their choice are aversive – but only because they are assessing those consequences against a personal standard of judgment. Stone found that when normative standards were primed, self-esteem made no difference and participants changed their attitudes toward the albums as predicted by dissonance. However, when personal standards were primed, participants with high self-esteem changed their attitudes far more than participants with low self-esteem.

Progress report on a classic theory

Festinger thought that dissonance was a function of cognitive inconsistency. As I look back at more than a half century of theory and research on this now-classic theory, two facets of Festinger's genius are palpable from his writing. One facet was about form and the other about substance. Festinger formed his theory around the great issues of the time. Learning was king of the psychology literature in the 1950s and Festinger adapted the Hullian drive concept for use in social psychology. In social psychology, learning and reinforcement concepts were the assumed girders of much of the research in persuasion and attitude change (Hovland et al., 1949, 1953). Festinger aligned his theory to make precisely the opposite predictions about persuasion than would have been predicted by learning, therefore creating instant controversy and research.

From a substantive perspective, Festinger thought that inconsistency among cognitions led to the uncomfortable arousal state he called dissonance. From what we now know, he was partially correct. "All theories are wrong," Festinger (1987) once wrote, "One asks, 'How much of the empirical realm can it handle and how must it be modified and changed as it matures?'" In the New Look and Self-Standards models, my colleagues and I tried to right the ship when it veered away from its path and to find new solutions to the *but only* dilemmas that taught us that the theory did not capture the totality of the dissonance phenomenon. To be clear, we were not the only investigators to notice that the theory needed additional concepts and perspectives to capture the richest range of phenomena and data. For example, Beauvois and Joule (1999), Harmon-Jones (1999), and Steele (1988) are among the creative scholars who have used alternate lenses to analyze the progress of dissonance through the decades. There is consensus that Festinger set us out on the path to understand how people view the 'fit' of their cognitions. There is consensus that one of his brilliant and ever-lasting insights was to allow us to consider all cognitions – whether mental representation of the world or mental representations of internal states – on the same grid and therefore subject to the rules of the dissonance process. There is consensus that his straightforward set of principles stimulated research in a way that was unprecedented in the field of social psychology.

I believe in the dissonance processes that we outlined in Cooper and Fazio (1984) and enhanced in Stone and Cooper (2001). As Festinger once taught us, however, our own version of the work will one day be proven wrong (only in part, I hope). Festinger wrote, "The only kind of theory that can be proposed and ever will be proposed that absolutely will remain inviolate for decades … is a theory that is not testable. If a theory is at all testable, it will not remain unchanged. It has to change."

NEW AVENUES OF DISSONANCE RESEARCH

From personal dissonance to vicarious dissonance

People's selves are integral to the dissonance process. Recent theorizing has made clear that the self is both personal and social (Leary and Tangney, 2003). It is about one's own personal characteristics and simultaneously about one's interconnectedness with others and with social groups (e.g., Brewer and Gardner, 1996), yet prior research connecting the experience of cognitive dissonance to membership in social groups was scant during the formative period of dissonance research. Ironically, the first study of cognitive dissonance ever reported was the study of disconfirmed expectancies by members of a doomsday cult who believed that the world would end in a cataclysmic flood. Their reactions to the disconfirmed expectancy formed the basis of *When Prophecy Fails* (Festinger et al., 1956). However, it would take researchers several decades to systematically vary group membership and assess the impact of participants' acting as individuals compared with their acting as members of a small group (Cooper and Mackie, 1983; Zanna and Sande, 1987).

In the theory of vicarious dissonance (Cooper and Hogg, 2007), we went more to the heart of the meaning of group membership and considered its impact on dissonance. We considered the effect of one group member's counterattitudinal advocacy on the attitudes and behaviors of other members of one's group. Social identity theory was the vehicle that helped us to link the dissonant behavior of one group member with the attitudes of other members of the group. Because of the impact of social identity on members of social groups, we reasoned that dissonance aroused in one group member could cause other group members to experience dissonance vicariously and result in attitude change by the other members of the social group.

As we know from the important work in social identity theory (Tajfel, 1970) and social categorization theory (Turner and Hogg, 1987), people in groups forge a common identity. When thinking of themselves as group members, there is a tendency toward depersonalization and intersubjectivity such that members assimilate toward the prototypical member of their group. The more strongly they feel about their group, the more they share in intersubjectivity and the more they take on the characteristics and emotions of fellow group members. Put simply, happiness or fear or sadness experienced by one member of a group spreads via intersubjectivity to other members (Mackie et al., 2007).

Michael Hogg and I wondered whether one group member's dissonance could spread to other group members in the same way. Suppose you are a member of a conservative antitax group and you observe a fellow group member make a public speech advocating an increase in the progressive income tax in order to support social programs. You know that the person voluntarily made the speech and that it was played before a potentially convincible audience. The situation has all of the ingredients to create cognitive dissonance in the speaker. But what about you, the witness? We reasoned that you will experience cognitive dissonance vicariously. Because of your common group membership, your view of your self is partly determined by your membership in the group to which you and the speaker belong. Your identity is wrapped up with your fellow group members and intersubjectivity makes you and the speaker fuse toward a common identity. The speaker's experience of discomfort will become your experience of discomfort. The speaker's attitude change will become your attitude change. The speaker's reduction of dissonance will become yours as well.

Norton et al. (2003) provided evidence for vicarious arousal of dissonance. A fictitious cover story created a rationale for a student to witness a fellow student agree to write a counterattitudinal message and to learn whether or not the student was a member of the participant's social group. At Princeton University, all entering undergraduate students are assigned at random to one of five residential colleges. Each student lives and eats in one of the colleges and each college has its own social and academic activities. The student's residential college served as the crux of the ingroup versus outgroup manipulation because each participant believed that he or she was witnessing an interaction with a student who happened to be a fellow resident of his or her residential college (ingroup member) or happened to be a resident of a different residential college (outgroup member).

The students arrived for a study of "linguistic subcultures" in groups of two, although each reported to a separate room, separated by two-way mirrors. We told the students that we were interested in how people in different residential colleges come to speak in slightly different ways, learning to use slightly different inflections or terms in their spoken behavior. For example, we know that people who live in the Midwest develop a slightly different pattern of speech than people who live in South Carolina or Massachusetts. The experimenter explained that the purpose of the students' participation in the current study was to see if these speech patterns occur in microcosms – that is, small groups within a larger context. We told the students that, in this study, we wanted to see if the speech patterns of students in the different residential colleges at Princeton University were different from one another and whether we could measure them.

We explained that one of the two students, selected at random, was going to deliver a speech on a given topic and the other student was going to listen carefully, and then respond to several questions about the speaker's speech patterns. Each participant was told that he or she was the one who had been randomly picked to rate the speech, while the student in the other room was assigned to give the speech. The procedure allowed us to make the student's residential college group salient and manipulate systematically whether

the speaker's residential college group was the same (ingroup) or different (outgroup) from the participant's. The experimenter found a pretext to turn the lights on briefly, which allowed the participants to see that there truly was another student in the other room. The illumination was kept low so that the students' identities could not be accurately discerned. What students did not realize was that each of them had been assigned the role of listener. All information about what the alleged other student said or did was manipulated by instruction or audiotape.

The experimenter left the room, ostensibly to instruct the other participant about the speech he or she was to make. During the intervening period, participants filled out various measures, including measures of how much they liked and felt identified with their residential college on a scale developed by Hogg and his associates (Hogg et al., 1998). In a few minutes, the experimenter returned with a tape recording that included the completed speech and the experimenter's alleged conversation with the other student. On the tape, the experimenter explained that he was fortunate to be able to combine two studies into one. The dean's office had asked for a study trying to assess student opinion about the possibility of raising tuition fees by a more than typical amount. The experimenter then asked the student to write a strong and forceful speech advocating a spike in tuition fees. He explained that this would be the speech that the other subject (i.e., the real participant) would rate for its linguistic features and that it would then be sent on to the dean's office. The experimenter also asked the alleged other student how he or she felt about raising tuition and the student responded, "Well … I'd be against it."

The participants thus had a credible, albeit fabricated, story that allowed them to overhear an ingroup or an outgroup member make a counterattitudinal speech on a controversial topic. The tape recorder was stopped while the writer supposedly organized his or her thoughts, and then restarted for the participant to hear the alleged speech. The speech was a relatively brief exposition on how higher tuition rates could allow the university to hire more faculty staff, purchase more books for the library, and so forth. Before rating the speech for its linguistic properties, participants were asked about their own attitudes toward tuition increases at the university. This served as the dependent measure of our study.

The results of the study showed that observing a fellow group member behave in a counterattitudinal fashion caused the participant to change his or her attitude in the direction of the group member's counterattitudinal advocacy. As predicted by vicarious dissonance, this effect *only* occurred when the participant strongly identified with his or her group. In the absence of a strong affinity with one's group, observing an ingroup or an outgroup member did not affect participants' attitudes (see also Monin et al., 2004).

Dissonance, vicarious dissonance, and culture

The concept of vicarious can help us unravel some of the cultural differences that have been identified in the expression of cognitive dissonance across cultures. Joan Miller (1984) was among the first to suggest that cultural differences may lead to different expressions of social psychological processes. She analyzed the difference between holistic and agentic cultures that broadly corresponded to Western European and North American cultures on the one hand and Asian and Indian on the other. In agentic cultures, people see themselves as responsible for their own actions and decisions. They make personal attributions for events, viewing behavior as a window on their own traits and characteristics. People from holistic cultures view the self in relationship to others. They see situations and social roles as determining their behavior and view behavior as a means toward harmonious social relationships.

In a subsequent seminal paper, Markus and Kitayama (1991) expanded the analysis of cultural differences by drawing a distinction between collectivist and individualist

cultures. Collectivist cultures are concerned with relationships among people. Social harmony is a key goal; attitudes and behavior primarily serve the goal of collective harmony. Individualist cultures are concerned with self-actualization. People's attitudes and behaviors are their own and expressing them truly and honestly is an important component of the self-actualization process.

By raising the question of whether different cultures have values that differentially affected the expression of attitudes, Markus and Kitayama opened an entirely new research direction for cognitive dissonance. They suggested that that dissonance is a uniquely Western or individualistic phenomenon. In individualistic cultures, people express opinions that are supposed to accurately reflect their judgment. They are supposed to say what they believe and believe what they say. Inconsistent cognitions do not fit an individualistic culture's notion of attitude expression. On the other hand, the expression of attitudes in collectivist cultures is only partly self-description but also constitutes expressions that affect the degree of harmony among people or groups. A member of a collectivist culture may not find it aversive to express attitudes that differ from their behaviors, but they would find it aversive if expressing opinions that disrupted interpersonal or intergroup harmony.

Although this chapter will not review the considerable research that has been conducted on dissonance in collectivist and individualist cultures during the last two decades, the conclusion of that research has revealed interesting and important aspects of the dissonance process itself. Heine and Lehman (1997) collected data in Canada comparing dissonance processes among Canadians of European descent and people of Japanese descent. Using a typical free-choice paradigm, Heine and Lehman found that, unlike the European Canadians, Japanese participants did not show the spreading of alternatives effect that had been found numerous times in the social psychology literature.

Did this mean that cognitive dissonance is not experienced by people in collectivist cultures? Hoshino-Browne and colleagues (2005) reported a series of creative experiments in which they elucidated the impact of culture on cognitive dissonance. They showed that people from collectivist cultures showed dissonance reduction following a choice if they made that choice for a friend rather than for themselves. That is, when attitudes and behaviors were inconsistent within a social network of relationships, it produced dissonance. When the inconsistency had no social referent, it did not.

Research on culture and dissonance provides a window into the important social values that, when disrupted, create the aversive event that leads to cognitive dissonance. For collectivist cultures, the value is interpersonal harmony. When people behave in ways that upset the social order, it produces the aversive consequence that leads to cognitive dissonance. In Western cultures, when people act in ways that produce unwanted consequence to the individual actor, it leads to dissonance. Research by Kitayama and his colleagues has also shown that the same action that leads to dissonance arousal in individualists can also lead to dissonance among collectivists, when the presence of social others is subtly primed (Imada and Kitayama, 2010; Kitayama et al, 2004).

Vicarious dissonance research provides another perspective to consider the differences between individualist and collectivist cultures. Chong and Cooper (2007) reported a study using the induced compliance paradigm of dissonance. Students in South Korea wrote essays that could bring about an unwanted policy change at their university. Chong and Cooper found that Korean students did not change their attitudes following the counterattitudinal speech, even though they acted with free choice and their action had the potential of bringing about an unwanted policy. However, Korean students did change their attitudes when the situation was changed into a vicarious dissonance study. When they witnessed students from their group writing a counterattitudinal essay, they changed their own opinion just as the participants in Norton et al.'s (2003) study had done.

Vicarious dissonance is intrinsically a social phenomenon. It is an arousal that is

experienced on behalf of someone else in an important social network. Taken together with the research of Hoshino-Browne et al. and Kitayama et al., we now understand that dissonance is aroused in both collectivist and individualistic cultures. For collectivists, more so than for individualists, a social consequence seems necessary for an act to be considered aversive and lead to the tension state of dissonance.

DISSONANCE IN A SOCIAL WORLD

Why does it matter?

One of the characteristics of cognitive dissonance is its ubiquity. When we make choices or suffer embarrassment or expend effort, we are in a dissonant state. It is difficult to go through a day without arousing dissonance. Attitudes ranging from consumer preferences (Menasco and Hawkins, 1978) to military service (Staw, 1974) have been viewed from a dissonance perspective. We have gained insight into why people feel passionately about social groups such as sororities and fraternities that they suffered to get into from the vantage point of cognitive dissonance. And what professor has not considered whether some students seem to love very difficult courses because of the effort justification intrinsic to cognitive dissonance?

To conclude this chapter, I will address two particular areas of social impact that have been addressed systematically with the principles of cognitive dissonance. The first is the potential of dissonance to effect change through psychotherapy and the second is the use of vicarious cognitive dissonance to induce positive changes in health behavior.

Dissonance as psychotherapy

Can psychotherapy be considered an instance of cognitive dissonance? In the 1980s, Danny Axsom and I conducted a series of studies in which we showed how dissonance could induce people to change their attitudes and behaviors psychotherapeutically (Axsom, 1989; Axsom and Cooper, 1985; Cooper, 1980). We noted the parallel between most psychotherapies and the principles of effort justification that Aronson and Mills had introduced in 1959. All therapies require effort. People engage in the effortful work freely, although the goal for which they are working is something for which they have some trepidation. It may be that they came to therapy to reduce their fear toward an object or their anxiety toward performing a particular behavior. Whatever the goal may be, prospective patients have ambivalence toward it, then engage in an effortful set of therapy sessions designed to overcome it.

We reasoned that the choice to engage in an effortful procedure was akin to the high choice conditions of an effort justification study. We decided to run studies in which people would attempt to reach a goal using a high degree of effort totally unrelated to any bona fide theory of psychotherapy. In one study, we invited people who wanted to reduce their fear of snakes to come to the laboratory where we measured how close they could come to our six-foot boa constrictor. They then participated in an effortful therapy that they believed was related to overcoming the fear. In truth, it contained a set of physical exercises designed to be difficult, embarrassing, and exhausting. We found that the participants were able to overcome their fear following this physical exercise therapy. Moreover, we also varied participants' choice to engage in the effortful therapy. Consistent with dissonance theory predictions, phobic participants who freely chose to engage in the effortful therapy overcame their fear significantly more than participants who were not given a choice (Cooper, 1980).

In a similar study, Axsom and I (Axsom and Cooper, 1985) put dissonance to use against the problem of obesity. People who were overweight and who had tried numerous weightloss programs volunteered for our experimental research. In a series of

five sessions, we asked our experimental group to engage in tasks that required a great deal of cognitive effort. They made perceptual judgments, read tongue-twisters and recited nursery rhymes, backward, for an hour. A second group engaged only in a low degree of effort, spending their time making simple judgments and relaxing. Six months after the end of the sessions, the participants were weighed. As we had predicted from dissonance theory, the high effort group lost more weight than the low effort group (8.6 lbs versus 0.8 lbs respectively) and kept the weight off for a year.

We do not claim that all psychotherapy is cognitive dissonance but we do believe that cognitive dissonance is one of the active ingredients of most psychotherapies. With knowledge of the conditions that give rise to maximal dissonance, we should be able to design psychotherapies in a way that allows dissonance to be helpful for psychotherapeutic change. Whichever approach a particular therapist adopts, maximizing the impact of dissonance in the therapeutic program can only enhance the accomplishments of the therapy. Therapists are advised to focus patients' attention on the effortful nature of the patient's work. Moreover, therapists should emphasize the patient's personal responsibility for engaging in the therapeutic effort. If these elements are included in psychotherapy, then the arousal and motivation that accrue from the dissonance process will be put to productive use for the patient.

Vicarious dissonance can lead to a healthier society

I believe that vicarious dissonance opens up a vast array of possibilities to put dissonance to use for a better world. We know that exposure to group members who are engaging in a dissonant act creates dissonance in other members (Monin et al. 2004; Norton et al, 2003). Consider the following scenario: A person observes a fellow group member advocate the use of risk-protective health behaviors; for example, eating a healthy diet, using condoms during sexual activity, refraining from smoking or applying sunscreen to protect against cancer. If the person observes the fellow group member admit to prior instances in which she did not practice what she preached, the elements for the vicarious experience of dissonance will be met. The vicarious dissonance should be resolved by the person's committing to more healthy future behaviors.

We (Fernandez et al., 2007) conducted such a study. Students at the University of Arizona were asked to listen to a speech made by a student that encouraged people to use sunblock as a preventative measure for skin cancer. They were led to believe that the speech had been made by a student at their university (ingroup condition) or by a student at a rival university (outgroup condition.) The speech was consistent with the participants' and the speaker's attitude toward sunscreen. It concluded, "No matter how busy you think you are with work or school you can and should always wear sunscreen to reduce your risk of cancer."

Through the use of an appropriate cover story, participants heard the ingroup or outgroup speaker reminded that she did not use sunscreen herself *every time* she went outdoors. We predicted that the experience of vicarious dissonance would be aroused for students who heard an ingroup member admit to hypocrisy but not an outgroup member and the more identified a student was with her own group (University of Arizona), the more she would experience vicarious dissonance.

We predicted that the vicarious dissonance would lead to prohealth behaviors and prohealth attitude change on the part of the participants, and that is what we found. Women in the study changed their own attitudes to become more ardent in their opinion that sunscreen should be used on all occasions. Moreover, when given the opportunity to return a coupon for a free bottle of sunscreen, 74 percent of the women in the vicarious hypocrisy condition requested their bottle

whereas only 54 percent of the women in the low vicarious hypocrisy (outgroup speaker) condition requested their sample.

There is good reason to believe that vicarious hypocrisy can be recruited by institutions from schools to the workplace to help its members live a healthier lifestyle and make healthier, less risky life decisions. Vicarious dissonance is a multiplier. A person who is induced to express vicarious hypocrisy creates his or her own change as an individual but may multiply that change throughout the groups to which he or she belongs. Schools, for example, can provide an opportunity for students to observe a fellow student speaking forcefully of her commitment to a healthy behavior regimen; for example, a commitment to a frequent exercise program. If the student acknowledges some occasions in which she failed to get to the gym, the conditions for vicarious dissonance will have been met. The dissonant cognitions of the speaker will spread to group members who will reduce their vicarious dissonance by adopting the exercise regimen that the single group member espoused. Similarly, a work place might bring group members together to witness a fellow worker advocate for healthy eating choices. By acknowledging his own dietary transgressions, fellow group members will experience vicarious dissonance, which they can reduce by making healthier food choices. The dissonance expressed by the single group member can spread through the group, affecting all of the members of the group. We can further speculate that this will be especially true if the members feel strongly identified with their group.

CONCLUSION

I came upon the theory of cognitive dissonance when it was in its childhood. It was a precocious child, already having generated fans and enemies, proponents and critics. A half-century later, the theory continues to inspire. Although only a few of the most ardent skeptics still doubt the existence of dissonance, the precise mechanism continues to be elusive. My own joy from being part of the dissonance cohort comes from having helped move the theory to a new level of understanding. In my own thinking, the reliance on inconsistency gave way to an understanding of the role of responsibility-for-consequences that is the core of the New Look model and for the importance of the self-concept that is the foundation of the Self-Standard model.

As Festinger tried to teach us, anyone's perspective on dissonance process will ultimately prove inadequate as data continue to be collected. All theories are at least partly wrong and all theories must change. Nonetheless, the search for change is part of the science and part of the fun. In the half century since Festinger first brought dissonance to our attention, we have not only moved toward a deeper understanding of this ubiquitous process, but we have also seen the theory spawn new ideas and relationships. Such major theoretical approaches as Kunda's motivated reasoning (Kunda, 1990), Higgins' (1989) self-discrepancy and Tesser's (1988) self-evaluation maintenance are but a few examples of that search. There will be more. The theoretical stability of dissonance and the change it continues to inspire are the twin legacies of cognitive dissonance theory.

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