

# The theory of cognitive dissonance

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## Contents:

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|--|----|
| 1. INTRODUCTION .....                              | 2  |
| 2. FUNDAMENTAL CONCEPTS AND PRINCIPLES.....        | 2  |
| 3. MAJOR COGNITIVE DISSONANCE PHENOMENA .....      | 4  |
| 4. REVISIONS AND ALTERNATIVE INTERPRETATIONS ..... | 9  |
| 5. TENTATIVE ASSESSMENT OF THE THEORY.....         | 10 |
| REFERENCES .....                                   | 11 |

# 1. Introduction

The aim of the present paper is to provide a general overview of cognitive dissonance theory. We begin by defining the basic concepts and summarizing the principal postulates of the theory. We point to possible classifications of the theory in terms of different forms of scholarship and types of theory by considering relevant philosophical and methodological assumptions. We go on to discuss the main areas of research focusing on dissonance phenomena. In addition, we present major revisions and alternative interpretations of the theory. We conclude by attempting to assess the theory on the basis of generally accepted criteria.

The theory of cognitive dissonance is one of the most significant and influential theories in the history of social psychology. Suffice it to mention that only five years after its introduction, Brehm and Cohen (1962, as cited in Bem, 1967, p. 183) could review over fifty studies conducted within the framework the theory. In the following five years, every major social-psychological journal averaged at least one article per issue probing some prediction derived from its basic propositions. In the course of five decades that have passed since it was formulated by Leon Festinger, it has found widespread applications in various fields of scientific investigation, including communication studies (e.g., Griffin, 2006; Littlejohn & Foss, 2005), marketing (e.g., Rice, 1997), economic theory (James & Gutkind, 1985), and behavioral finance (Ricciardi & Simon, 2000).

## 2. Fundamental concepts and principles

The central proposition of Festinger's theory is that if a person holds two cognitions that are inconsistent with one another, he will experience the pressure of an aversive motivational state called cognitive dissonance, a pressure which he will seek to remove, among other ways, by altering one of the two dissonant cognitions (Bem, 1967, p. 183). If we wish to analyze the hypothesis stated above in detail, it is essential to define several basic concepts. A *cognition* (also called a *cognitive element*) may be broadly defined as any belief, opinion, attitude, perception, or piece of knowledge about anything - about other persons, objects, issues, oneself, and so on (Aronson, 2004, p. 146; Littlejohn & Foss, 2005, p. 77; O'Keefe, 2002, p. 78). Littlejohn and Foss (2005) define a *cognitive system* as "a complex, interacting set of beliefs, attitudes, and values that affect and are affected by behavior" (p. 81). Festinger

considered the need to avoid dissonance to be just as basic as the need for safety or the need to satisfy hunger (Griffin, 2006, p. 228). Psychologists define a *drive* as any internal source of motivation that impels an organism to pursue a goal or to satisfy a need, such as sex, hunger, or self-preservation. The distressing (aversive) mental state termed *cognitive dissonance* is therefore conceptualized as an *aversive drive*.

In this paper, we are primarily interested in Festinger's theory as one of a diverse range of theories of human communication. Bormann (1989, as cited in Griffin, 2006) refers to communication theory as an "umbrella term for all careful, systematic and self-conscious discussion and analysis of communication phenomena" (p. 6). Scholars have made many attempts to define communication but establishing a single definition has proved impossible (Littlejohn & Foss, 2005, p. 12). For the purposes of the present discussion, *communication* will be taken to mean "all those processes by which people influence one another" (Ruesh & Bateson, 1951, as cited in Watson & Hill, 1989, p. 41). Inasmuch as Festinger's theory is concerned with attitude change and attempts to discern how persuasive messages are processed in the minds of listeners, there is no doubt that it may be regarded as a communication theory.

That brings us to the next point, namely the categorization of cognitive dissonance theory. As has been noted above, it is firmly planted in the sociopsychological tradition, which focuses on individual social behavior, psychological variables, perception, and cognition. At the same time, however, it is so infused with system thinking that it must be included in the cybernetic tradition as well. Festinger's theory is one of a group of cybernetic theories known as *consistency theories*, all of which begin with the same premise: people are more comfortable with consistency than inconsistency. In cybernetic language, people seek *homeostasis*, or balance, and the cognitive system is a primary tool by which this balance is achieved. The mind is imagined as a system that takes inputs from the environment in the form of information, processes it, and then creates behavioral outputs (Littlejohn & Foss, 2005).

There are two distinct perspectives within the field of communication theory: *objective* and *interpretive* (Griffin, 2006). Festinger's theory, belonging to the sociopsychological tradition, epitomizes the scientific (objective) perspective. Scholars in this tradition believe there are communication truths that can be discovered by careful, systematic observation. The objective approach of the theory manifests itself in its epistemological assumptions: there is one reality, waiting to be discovered by employing quantitative research methods such as

experiments and surveys. In contrast to interpretive scholars, social scientists work to pin down universal laws of human behavior that cover a variety of situations. They consider good theories to be mirrors of nature. It can thus be concluded that the theory of cognitive dissonance is a *nomothetic theory* – one that seeks universal and general laws. This approach is based on the *hypothetico-deductive method*, which involves the following processes: (1) developing questions, (2) forming hypotheses, (3) testing the hypotheses, and (4) formulating theory. Festinger's theory appears to make certain philosophical assumptions that are typical of nomothetic theories. In epistemology, the theory espouses empiricist and rationalist ideas. In terms of axiology, the theory takes a value-neutral stance. In terms of ontology, the theory assumes that behavior is basically determined by and responsive to biology and the environment (Littlejohn & Foss, 2005, pp. 23-24).

Three possible relations might exist between any two cognitive elements. The first type of relationship is *irrelevant* (neither affects the other), the second is *consonant* (consistent), and the third kind is *dissonant* (inconsistent). Two elements are said to be in a dissonant relation if the opposite of one element follows from the other. The degree of dissonance experienced is a function of two factors: (1) the relative proportions of consonant and dissonant elements and (2) the importance of the elements or issue (Littlejohn & Foss, 2005, p. 77; O'Keefe, 2002, p. 78). Festinger imagined a number of methods for dealing with cognitive dissonance: (1) altering the importance of the issue or the elements involved, (2) changing one or more of the cognitive elements, (3) adding new elements to one side of the tension or the other, (4) seeking consonant information, and (5) distorting or misinterpreting dissonant evidence (Littlejohn & Foss, 2005, p. 78; O'Keefe, 2002, p. 79).

### **3. Major cognitive dissonance phenomena**

Let us now turn to a brief discussion of major cognitive dissonance phenomena. Most of them can generally be arranged into four groups: (1) selective exposure to information, (2) postdecision dissonance, (3) minimal justification (induced compliance), and (4) hypocrisy induction.

The first area of dissonance theory research concerns people's propensity to expose themselves selectively to information. As has been indicated, dissonance is an aversive motivational state, therefore people naturally attempt to avoid dissonance-arousing situations. That is to say, persons prefer to be exposed to information that is supportive of their current beliefs rather than to nonsupportive information, which presumably could arouse dissonance.

Interestingly enough, dissonance theory's *selective exposure* hypothesis calls into question the purported significant and far-reaching impacts of the mass media on the audience. If people generally seek out only media sources that confirm or reinforce their prior beliefs, then the powerful effects of the mass media are blunted (O'Keefe, 2002, p. 85).

As will be argued below, people are adept at justifying their behavior. An example that suggests itself is that of smokers who cognitively minimize the danger of smoking. This involves the dismissal of a large body of evidence regarding the illnesses that cigarettes can cause, and the rejection of all negative aspects of smoking. By the same token, some theologians claim that science cannot settle the issue of God's possible superintendence of nature because scientific evidence is completely irrelevant to theological questions. Dawkins (2007, p. 78) suggests that religious apologists would eagerly embrace any scientific evidence in favor of religious belief. Though arguably irrational, their behavior may at least in part be explained in terms of the selective exposure hypothesis.

Although there may be some preference for supportive information, O'Keefe (2002, p. 86) emphasizes the fact that this preference is only one of many influences on information exposure, and hence it may be overridden by other considerations, such as the perceived utility of the information, curiosity, and fairness.

The second research area we would like to discuss is *postdecision dissonance*. Undoubtedly, close-call decisions can generate huge amounts of internal tension after the decision has been made. Following a decision, people agonize over whether they made the right choice. The magnitude of this dissonance depends on the following factors: (1) importance of the issue, (2) delays in choosing between two equally attractive options, (3) difficulty involved in reversing the decision, (4) attractiveness of the chosen alternative, (5) attractiveness of the rejected alternative, (6) the degree of similarity or overlap between the alternatives, and (7) the number of options considered (Griffin, 2006, p. 231; Littlejohn & Foss, 2005, p. 78; Rice, 1997, p. 114). Being plagued with regrets and second thoughts after a tough choice, people automatically seek information that vindicates their decision and allays nagging doubts.

This kind of dissonance, called "buyer's remorse" by salespeople (Littlejohn & Foss, 2005, p. 78), arises after buying something valuable, such as a car or a house. Obviously, the chosen alternative is seldom entirely positive and the rejected alternatives are seldom entirely negative. A good way to reduce such dissonance is to seek out exclusively positive information about the car you chose and avoid negative information about it (Aronson, 2004,

p.155). According to Smith (1993, p. 71), sellers should address postpurchase dissonance by reassuring the buyer with a congratulatory note, additional advertising, after-sales service and, most of all, a product or service that lives up to the promise made in the advertising.

An experiment by Brehm (1956, as cited in Aronson, 2004, p. 155) clearly demonstrates people's capability of reassuring themselves. Several women were given eight different appliances and asked to rate them in terms of attractiveness. Each woman was told she could have one of the appliances as a gift and given a choice between two of the products she had rated as being equally attractive. Several minutes later, she was asked to rate the products again. The results were as follows: women rated the attractiveness of their chosen appliances somewhat higher and decreased the rating of the rejected appliances. In other words, they spread apart the alternatives to reduce dissonance.

An experiment by Mills (1958, as cited in Aronson, 2004, p. 161) demonstrated how moral attitudes may change drastically as a consequence of decisions taken. Mills first measured 6th-graders' attitudes about cheating. Then, they participated in a competitive exam with prizes offered to the winners. As expected, some students cheated and others did not. When asked again to indicate their feelings about cheating, those who had cheated showed more lenient attitudes toward cheating, and those who resisted the temptation to cheat became even more strict about cheating.

Freedman and Fraser (1966, as cited in Argyle, 1994, p. 138; see also Aronson, 2004, p. 158) have demonstrated that when individuals commit themselves in a small way, the likelihood that they will commit themselves further in that direction is increased. The process of using small favors to encourage people to accede to larger requests is called the *foot-in-the-door technique*.

Another research area in the study of persuasive communication is termed *minimal justification*. The theory predicts that counter-attitudinal action, freely chosen with little incentive or justification, leads to a change in attitude. If we are to fully understand this principle, it is necessary to distinguish between external and internal justification. *External justification* is a person's reason or explanation for his or her dissonant behavior that resides not in the individual but rather in the situation (such as politeness, drunkenness, praise, or reward), whereas *internal justification* is the reduction of dissonance by changing something about oneself (e.g., one's attitude or behavior). If an individual states a belief that is difficult to justify externally, that person will attempt to justify it internally by making his or her attitudes more consistent with the statement (Aronson, 2004, p. 164).

Surprising as it may seem, dissonance theory predicts that we begin to believe our own lies – but only if there is not abundant external justification for making the statements that go against our original attitudes. This powerful form of permanent attitude change has been called the "saying is believing" paradigm. We are modifying our attitudes because we have succeeded in convincing ourselves that our previous attitudes were incorrect. These speculations have been investigated scientifically in a number of experiments. The best known and most widely quoted forced-compliance study was conducted by Festinger and Carlsmith (1959). They asked college students to perform a very boring and repetitive series of tasks and then induced them to tell a potential female subject that the activities were interesting and enjoyable. Some of the men were promised \$20 to express enthusiasm about the task, whereas others were offered only \$1. After the experiment was over, those students who had been paid \$20 for lying rated the activity as dull, while those who lied for \$1 maintained that it was much more enjoyable. Festinger said that \$1 was just barely enough to induce compliance to the experimenter's request, hence the students had to create another justification. They changed their attitudes toward the task to bring it into line with their behavior.

In an important set of experiments, Leippe and Eisenstadt (1994, as cited in Aronson, 2004, p. 166) induced white college students to write an essay demonstrating *counter-attitudinal advocacy*: publicly endorsing a proposal to increase the amount of scholarship funds for African-American students, which meant cutting the scholarship amounts for white students. In order to reduce the high dissonance evoked by the situation, the students convinced themselves that they really believed deeply in that policy. Moreover, they adopted a more favorable and supportive attitude toward African-Americans. It is important to realize that external justification may come in a variety of forms other than monetary gain, such as the willingness to do something unpleasant as a favor to a friendly person (Zimbardo, Weisenberg, Firestone, & Levy, 1965, as cited in Aronson, 2004, p. 167).

The mechanism in question has important practical implications for parents and educators. As has been shown in a number of experiments (Aronson & Carlsmith, 1963; Freedman, 1965, as cited in Aronson, 2004, p. 174), excessive punishment might produce short-term obedience but not underlying change. Similarly, in trying to encourage children to do their homework, parents ought to think carefully about offering extremely large rewards for compliance, since such rewards can undermine the development of positive attitudes toward homework. In other words, smaller incentives for freely chosen counter-attitudinal

behavior are more likely to produce underlying favorable attitudes toward that behavior (O'Keefe, 2002, p. 93). Furthermore, Deci (1971, as cited in Aronson, 2004, p. 166) demonstrated that offering rewards to people for performing a pleasant activity actually decreases the intrinsic attractiveness of that activity.

It should be noted that researchers have not always obtained the induced-compliance effects predicted by dissonance theory. Two important limiting conditions have been identified. The predicted dissonance effects in induced-compliance situations are obtained only (1) when the participants feel that they had a choice about whether to comply, and (2) when there is no obvious alternative cause to which the feelings of dissonance can be attributed (O'Keefe, 2002, p. 92).

The last main group of phenomena we would like to discuss is known as *hypocrisy induction*. Sometimes a persuader's task is not so much to encourage people to have the desired attitudes as it is to encourage people to act on existing attitudes. The basic idea is that calling attention to the inconsistency of a person's attitudes and actions - that is, the person's hypocrisy - can arouse dissonance, which then is reduced through behavioral change (altering the behavior to make it consistent with the existing attitude). In an experiment by Stone et al. (1994, as cited in O'Keefe, 2002, p. 94; see also Aronson, 2004, p. 174) college students were confronted with their own hypocrisy. The participants were asked to compose and recite a speech advocating the use of condoms. In addition, they were made mindful of their past failures to use condoms, which resulted in a state of high dissonance. As expected, those students were far more likely to purchase condoms after the experiment.

Dissonance theory leads to the prediction that, if a person goes through a difficult or a painful experience in order to attain some goal or object, that goal or object becomes more attractive to the individual than to someone who achieves the same goal with little or no effort. This process, called *justification of effort*, was demonstrated in an experiment by Aronson and Mills (1959, as cited in Aronson, 2004, p. 176). Various groups, such as cults or college fraternities, commonly exploit this phenomenon by imposing severe initiation rituals, which serve to create commitment and value for those joining the group. The importance of volunteering to go through the unpleasant experience was demonstrated experimentally by Cooper (1980, as cited in Aronson, 2004, p. 177).

The theory of cognitive dissonance may shed light on the enormous power of cult leaders. A classic participant observation study by Festinger, Riecken, and Schachter (1956, as cited in Tumminia, 2005, p. 33; see also Huegler, 2006, p. 13; Spilka et al., 2003, p. 356)



involved a cult in a small American town. The study confirmed Festinger's prediction that when the group's prophecy of the world's destruction failed, the group would both continue in its beliefs and attempt even greater proselytization. After major disconfirming events, groups will presumably seek new converts, the inference being that if newcomers believe then so too can the people whose beliefs have just been shaken.

Many people find themselves participating in religious rituals even though they have no personal commitments to the ideas behind them. Festinger's theory suggests that this can cause individuals to adjust previous beliefs. Acting as if we believe something promotes belief itself. As people invest greater levels of time and resources into religious practices - regular attendance, personal relationships, mission work, financial support, and so on - their commitment to the gods that motivate such behaviors is proportionately reinforced and strengthened (Tremblin, 2006, p. 131).

#### **4. Revisions and alternative interpretations**

A number of revisions to dissonance theory have been suggested, and several competing explanations have also been proposed. According to Aronson, people experience cognitive dissonance as a result of *psychological inconsistency* rather than logical inconsistency between attitude and behavior. He interprets the \$1/\$20 experiment as a study of self-esteem maintenance (Aronson, 2004, p. 169; Griffin, 2006, p. 234). Aronson (1992, as cited in O'Keefe, 2002, p. 96) has suggested that dissonance arises most plainly from inconsistencies that specifically involve the self. That is, dissonance is greatest and clearest when it involves not just any two cognitions but, rather, a cognition about the self and a piece of our behavior that violates that self-concept. Dissonance-reducing behavior is ego-defensive behavior. By reducing dissonance, we maintain a positive image of ourselves - an image that depicts us as good, or smart, or worthwhile. Aronson claims that people are not rational beings, but rather rationalizing beings. Humans are motivated not so much to be right as to believe they are right and to justify their own actions, beliefs, and feelings. When they do something, they will try to convince themselves (and others) that it was a logical, reasonable thing to do.

An experiment by Cialdini and Schroeder (1976, as cited in Aronson, 2004, p. 170) demonstrated interesting practical implications arising from Aronson's formulation of dissonance theory. Students acting as fundraisers went door to door, sometimes just asking for donations and sometimes adding that "even a penny will help". As conjectured, the residents who were approached with the even-a-penny request gave contributions more often.

Furthermore, the even-a-penny contributors were likely to give as much money as the others. Once people reach into their pockets, emerging with a mere penny is self-demeaning. A larger donation is consistent with their self-perception of being reasonably kind and generous.

Another major revision to Festinger's original theory was proposed by Bem (1967), whose *theory of self-perception* has provided an alternative interpretation of cognitive dissonance phenomena. He challenged the assumption that it is the discomfort caused by a threat to the self-concept that motivates people to change their beliefs or behavior. He developed the notion of self-perception and applied it to some of the research on dissonance theory. For example, he conducted his own \$1/\$20 study to test his hypothesis. According to Bem (1967), "the attitude statements which comprise the major dependent variables in dissonance experiments may be regarded as interpersonal judgments in which the observer and the observed happen to be the same individual and that it is unnecessary to postulate an aversive motivational drive toward consistency to account for the attitude change phenomena observed" (p. 183). In other words, the people may not be experiencing discomfort and may not be motivated to justify themselves. Rather, they may simply be observing their own behavior in a calm and dispassionate way, and drawing conclusions from their observations.

## **5. Tentative assessment of the theory**

Griffin (2006, p. 39) proposed a set of criteria for assessing objective theories: (1) explanation of the data, (2) prediction of future events, (3) relative simplicity, (4) testability, and (5) practical utility. As has been argued above, the theory of cognitive dissonance is reasonably effective in explaining and predicting human behavior, although its expectations have sometimes received only weak confirmation and unanticipated findings have emerged (O'Keefe, 2002). The foregoing discussion provides ample evidence of the theory's practical utility. However, reservations have been expressed about its simplicity. Furthermore, Festinger's theory contains a serious flaw: it is not falsifiable. There is no way it could be proved wrong because Festinger never specified a reliable way to detect the degree of dissonance a person experiences (Griffin, 2006, p. 238). Nevertheless, cognitive dissonance theory has yielded a number of useful and interesting findings. Moreover, it has served as a fruitful source of ideas and stimulated substantial relevant research.

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