

Researchers in consumer behavior have attempted to relate attitude change, information seeking, and brand loyalty to the concept of cognitive dissonance. The writers review the consumer behavior literature relating to cognitive dissonance, critique the research, and provide some directions for future research.

Cognitive Dissonance and Consumer Behavior: A Review of the Evidence

INTRODUCTION

In the last 10 years substantial research has been applied to a number of topics in consumer behavior. Most of the studies have involved concepts and propositions formulated on the basis of social psychological theories. One such theory which has been found to have applications to consumer behavior is the theory of cognitive dissonance [7, 20].

Several articles have provided critical reviews of the theory and have described how the theory relates to consumer behavior [8, 19, 25, 45]. Many of these earlier summaries of the theory gave much promise for an increased understanding and applications for consumer behavior. There are now 23 studies which have examined empirically the arousal and reduction of cognitive dissonance in the context of consumer behavior¹. Therefore, it would be valuable to examine critically all of the empirical studies that have investigated the applicability of cognitive dissonance theory to the consumer behavior context². For clarity, the

findings of studies critiqued in this review are organized in two categories: (1) effects of dissonance arousal on attitude change and tendency to repurchase, and (2) effects of dissonance arousal on selective information seeking by consumers.

By far the greatest amount of dissonance-related research in consumer behavior has used attitude change as the dependent measure. Brehm's study [5] was the first to observe the predicted effect of magnitude of dissonance (relative desirability of the alternatives) on reranking of the chosen and unchosen alternatives. Several studies [1, 9, 12, 23, 27, 28, 37, 38] have replicated and extended Brehm's initial findings with different products and settings. Only a single study [11] reported no effects of magnitude of dissonance on measures of brand preference, intention to purchase, or brand loyalty. Also the two studies [16, 25] that investigated "real life consumer situations" generally obtained findings consistent with the theory. A somewhat different approach was taken in three studies [15, 24, 43] which used postpurchase reinforcement techniques to reduce purchasers' dissonance after the purchase of major products. In general, the studies which have examined the effects of dissonance arousal on attitude change and tendency to repurchase have supported the predictions from the theory (although there are some obvious exceptions).

After reviewing all the available evidence within social psychology, Freedman and Sears [21] and Sears [36] concluded that the empirical findings have not supported either a general preference for supportive over nonsupportive information or a greater information seeking/avoidance tendency by high dissonance subjects. Similarly, studies [17, 18, 27] of the effects of dissonance arousal on selective information seeking

¹Three studies [4, 32, 35] are not included in this review as they do not fit in any one of the three categories because of their dependent measures. More important, the studies by Bell [4] and Reizenstein [35] are peripheral to dissonance; Oshikawa's study [32] is an attempt at experimental refutation of a basic prediction from dissonance theory and the context in which it was tested does not relate to consumer behavior.

²Oshikawa critiqued some studies, primarily on the grounds of "ceiling effect" [30, 31, 33].

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by the consumer have not strongly supported the predictions from the theory. Thus, the evidence from the consumer behavior literature on this question is (like the evidence from social psychology) most equivocal. It cannot be concluded at this time that dissonance arousal factors are relevant to postpurchase information seeking variables in the marketing situation.

CRITIQUE

Any conclusions to be drawn from the studies reviewed must be made in light of the methodological and conceptual limitations of these studies. Such an examination should be of use both to the researcher and to the practitioner. Chapanis and Chapanis [10] critiqued the earlier research on cognitive dissonance. They criticized the studies by Brehm [5] and by Ehrlich et al. [17] for rejection of large numbers of subjects (both studies) and failure to include a proper control condition (Ehrlich et al.). For the most part, however, the studies which investigated the application of dissonance theory to consumer behavior have presented a different set of problems, not previously cataloged.

Measurement of Magnitude of Dissonance

Some researchers have attempted to assess magnitude of dissonance by questioning the subject about his (her) level of conflict or worry about the "rightness" of his (her) decision [4, 11, 24]. It is not clear that these measures were tapping magnitude of dissonance. In fact, as Oshikawa [34] and Hawkins [22] demonstrated, these measures probably were tapping a good deal other than dissonance arousal. These investigators demonstrated that such measures are correlated with measures of general confidence and anxiety. Thus, unless a theoretically relevant and unambiguous measure of magnitude of dissonance aroused is used, the results are of questionable relevance to dissonance theory.

Regression Artifacts

Four studies [1, 5, 27, 38] employed the free choice paradigm in which the high-dissonance situation consisted of a choice between two products of similar desirability, and the low-dissonance situation consisted of a choice between two products of disparate desirability. By chance alone, after a period of time has elapsed, there should be greater spread in the desirability of the "high-dissonance" products than of the "low-dissonance" products. This is precisely the effect predicted by the theory. Thus, any study employing this paradigm must include the appropriate correction for regression (as in [5]) or a no-choice control condition (as in [27]). Without such a correction, it is impossible to assess that portion of the overall effect which is due to statistical regression and that portion which is due to dissonance reduction.

Oshikawa's criticisms [30, 31, 33] of the studies using this paradigm appear to be somewhat overstated. As noted, [5] and [27] included appropriate corrections for ceiling effects or regression artifacts. Similarly, there are certain aspects of Sheth's [38] data which cannot be explained by recourse to a regression artifact argument (see [39]). In general, it seems that the studies which have employed this paradigm have supported the predictions from the theory, despite the possibility of regression artifacts.

Failure to Meet Prerequisite Conditions for Producing Dissonance

Accumulated evidence has demonstrated that certain prerequisite conditions are necessary in order for dissonance effects to occur. Brehm and Cohen [7] emphasized that *volition* and *irrevocable commitment to the decision* (product choice) are necessary. It is not clear, for example, in some studies [3, 9] whether subjects were given any choice as to whether or not to perform the task which was instrumental to obtaining the product. Certainly this choice was not made salient to the subjects. Aronson [3] emphasized that the dissonance-producing decision must be an *important choice*; it must to some degree bear on the individual's self-concept. Again the situation provided in the studies is questionable: even if a decision were made by the subject, would a decision concerning a rather inexpensive item be an important one? Maybe, but maybe not. A clear test of the theory is not provided. Similarly, the obviously role-playing situations in some studies [23, 28] necessarily reduce the importance of the decision for the subjects. Subjects in these role-playing situations are probably making decisions of minimal importance to themselves. To the extent that the experimental situation fails to meet the prerequisite conditions of volition, irrevocability of the commitment, and importance of the decision, it is doubted that dissonance was aroused. Although the studies may obtain effects in line with the theory, these effects may be due to causes other than dissonance arousal.

Failure to Shield Against Alternative Modes of Dissonance Reduction

Several modes of dissonance reduction are open to the individual who has made a decision, and it is difficult to predict which mode the individual will use. It is likely that more than one or perhaps all modes are used at different times. Unless the investigator allows only one mode of reduction to vary while holding all other modes constant, it is likely that many different modes will be used by different subjects. This variation will necessarily weaken the dissonance-produced effect.

The failure to shield against alternative modes of dissonance reduction has been particularly salient in investigations of dissonance theory in the consumer

behavior area [17, 18]. For example, Straits [42] criticized Engel's [18] study on a number of points which indicate a failure to shield against alternative modes. Ehrlich et al. [17] likewise permitted subjects ample opportunity to reduce dissonance by various means prior to the study.

The failure to shield against alternative modes sometimes appears in more subtle forms. For example, LoSciuto and Perloff [27] followed a product-preference reranking task with a recognition task. Significant effects of magnitude of dissonance were obtained with the reranking task but not with the recognition task. These results are in line with the theory: once dissonance has been reduced by means of product re-evaluation, there should be little or no subsequent effect of magnitude of dissonance on information-seeking behaviors.

Accepting Null Differences as Support of the Theory

Chapanis and Chapanis [10] applied this criticism ("straining for significance") to the earlier tests of dissonance theory. This criticism applies as well to some of the studies in the consumer behavior area. Experimental differences which appear to support predictions from dissonance theory, which appear to qualify the theory, or which appear to specify the conditions under which dissonance theory should or should not be applied, must be interpreted as *no* difference between experimental conditions unless a predetermined level of statistical significance is reached.

Questionable Relevance to Dissonance Theory

A number of studies which have cited dissonance theory as a source of hypotheses do not, in fact, appear to be relevant to dissonance theory. For example, three studies examined the effect of prior expectations on subsequent evaluations of the product [2, 9, 29]. Though this is certainly an important question, it is not, as these investigators claimed, a question relevant to dissonance theory. There is no decision, no initial commitment, and no postdecisional phase involved in any of these studies. Likewise, some studies [e.g. 41] have manipulated variables that are not clearly relevant to the theory. The effects of such manipulations cannot be taken either to support or not to support the theory.

Correlational Evidence Taken as Causal

Correlational evidence is certainly valuable in demonstrating potential relationships and suggesting new and fruitful lines of research. However, such evidence is not nearly conclusive. Correlational studies which have been cited in support of dissonance theory may be considered to be *consistent with* the theory but not actually *supportive of* the theory. However, these studies made stronger conclusions than are warranted. One study [11] presented correlational evidence of

a different sort. The investigators divided the subjects into a high-dissonance group and a low-dissonance group on the basis of the subjects' postdecisional ratings of predecisional conflict. The investigators observed no significant effects of "dissonance" on a number of measures. These findings were interpreted as a disconfirmation of dissonance theory. What the results *do* demonstrate is that there is little if any correlation between this initial measure of conflict and the subsequent measures. Because there was no manipulation of magnitude of dissonance, these findings cannot really be taken as a disconfirmation of the theory.

Compelling Alternative Explanations

The presence of compelling alternative explanations is certainly not a flaw in any study. However, such alternative explanations make it difficult to use a set of findings as compelling proof of the theory. Doob et al. [16] demonstrated that introducing a product at a special low price decreases later sales, as predicted by the theory. However, this effect may be due either to buyers' "stockpiling" goods at the time of the sale or to "frustration" on the part of the buyers who are suddenly faced with a more expensive item. Reinforcement notions provide a simple and compelling alternative explanation to the findings reported by Van Dyke [43] and Donnelly and Ivancevich [15]. Both studies employed postpurchase contact as a means of improving buyers' attitudes toward the product [43] or decreasing backout rates [15]. One simply can view the contacts as postpurchase social reinforcements, rather than attempts to assist the purchaser in reducing dissonance, which should have similar effects on postpurchase satisfaction.

OVERALL EVALUATION

Because of the methodological and conceptual limitations of the studies, it is difficult to make a definite statement of the applicability of dissonance theory to consumer behavior. Certainly none of the findings in this literature have presented a major challenge to the validity of the theory, because of the methodological problems involved. However, no single study has provided evidence which conclusively supports the application of dissonance theory to consumer behavior. In brief, the evidence is far from definite. But it should be noted that the evidence in favor of the applicability of dissonance theory is more voluminous and somewhat more substantial than the evidence against. This conclusion should, in turn, be properly qualified: as noted, it appears questionable that magnitude of dissonance has any effect on the consumer's information-seeking behavior. The evidence with respect to attitude change and tendency to repurchase is, however, more substantial. Studies have demonstrated the predicted effects with a wide range of products, a number of dependent measures,

a range of settings, and a number of operationalizations of the conceptual variable, "cognitive dissonance." *There is no other single explanation—other than cognitive dissonance theory—that can account fully for the results of these studies.* Though several important and intriguing problems and alternative explanations have been presented, none can account adequately for all the findings in this area. The empirical realization of "cognitive dissonance" and the generalizability of this phenomenon to consumer behavior—excluding information-seeking behavior—has been substantiated.

DIRECTIONS FOR RESEARCH AND APPLICATION

Application of Dissonance Theory in Consumer Behavior

Because of the limitations in the existing research, it is difficult to draw conclusions with respect to the proper application of the theory to marketing situations. However, it was noted heretofore that predictions from the theory can be applied most accurately when there is high perceived volition concerning the choice or purchase, when there is an irrevocable commitment to the choice or purchase, and when the choice or purchase is an important (ego-involving) one for the buyer. Similarly, it was noted that the manipulation of magnitude of dissonance can be expected to influence postpurchase attitude or behavior change, but not postpurchase information seeking. Finally, a clear prediction can be made from the theory only when one mode of dissonance reduction is allowed to vary while all other modes are held constant. It is not possible to offer further guidelines for the application of the theory in the marketing situation at this time. The studies to date have not examined the conditions under which dissonance theory will and will not work. Certainly more research is needed on this point. Until more evidence is available, careful pilot testing must be undertaken for each new situation.

One reason that so little is known about the conditions under which the theory is or is not applicable in the marketing situation is that most of the research has been done in the laboratory rather than in the field. Of the 23 studies reviewed here, only five [15, 16, 24, 38, 43] have examined the effects of magnitude of dissonance, as a manipulated variable, on subsequent attitude or behavior change in the field. The problems associated with field research are compounded in dissonance research, in which the investigator must have careful control over both the antecedent conditions and the various alternative modes of dissonance reduction. However, certain studies [15, 16, 43] apparently have overcome this obstacle successfully.

Experimental research in this area has concentrated primarily on the *free choice paradigm*. However, there

are other paradigms which seem to be relevant to consumer behavior. Because the objective of this review is to examine critically the empirical findings from the cognitive dissonance concepts in consumer behavior, this review is not the place to point out in detail how these paradigms might apply to consumer behavior or to provide compelling arguments as to why consumer behavior researchers should explore these paradigms. However, because recent investigations in social psychology have been focused on two paradigms, *the forced compliance paradigm and the fait accompli paradigm*, a brief discussion of them is provided to encourage consumer behavior researchers to use these two dissonance-related approaches.

Forced compliance paradigm. Can the forced compliance paradigm—in which the subject is persuaded to behave in a manner that is inconsistent with his prior beliefs—be used in the marketing situation? Oshikawa [32] has replied with a definite "No!" However, it appears that there are some situations in which the forced compliance paradigm can be applied. Oshikawa argued that "the applicability of the theory to consumer behavior is considerably limited," because "in the natural market setting, consumers do not comply with such requests as buying the second-best brand when the best brand is available" [40, p. 134]. However, Darley and Cooper [14] negated this criticism by demonstrating that the forced-choice type of prediction can be made from dissonance theory even when individuals are induced *not* to engage in discrepant behaviors. Moreover, Varela [44] suggested some imaginative applications of the forced compliance paradigm. Likewise, Doob et al. [16] made use of the "crucial theoretical statement" of the forced compliance situation: "*the less the pressure . . . put upon the person to perform the act, the greater the dissonance* [italics added] . . . the greatest attitude change will occur theoretically when the pressure is the minimal amount necessary to induce the subject to perform the act" [26, p. 206]. This principle should be of great applicability in the consumer context.

Fait accompli paradigm. Brehm [6] introduced the *fait accompli* paradigm with a demonstration that a negative event following a "bad decision" would increase the dissonance produced by that decision. The *fait accompli* paradigm certainly appears to be applicable to the marketing situation. Investigations with this paradigm should suggest the situations and techniques by which buyer dissatisfaction can be minimized. Recent investigations in social psychology [13, 40] have attempted to specify the conditions under which the *fait accompli* effect will occur.

CONCLUSIONS

Chapanis and Chapanis [10] reviewed the evidence regarding dissonance theory in 1964 and concluded

that dissonance theory was "NOT PROVEN." Reviewing the evidence to date on the application of dissonance theory to consumer behavior, the writers also must conclude that such applicability is "not proven." (But then, is any theory in the behavioral sciences ever really proved?) We must conclude, however, that the evidence in favor of dissonance theory in the consumer behavior literature looks good. To be sure, although the supportive evidence is restricted by certain methodological and conceptual limitations, dissonance theory provides the best single explanation which can account for all the results across these studies. Moreover, there are no conclusive negative findings in the areas of post-purchase attitude change and tendency to repurchase. The evidence has not supported the applicability of dissonance theory to selective exposure and similar behaviors.

At this point, research would be directed best toward specifying the marketing conditions under which dissonance theory would be most applicable. Furthermore, the applicability of two dissonance paradigms which have not been studied in consumer behavior should be investigated further. Dissonance theory already has provided new ideas and spawned much new research in consumer behavior. Additional insights into postpurchase behavior are promised by dissonance theory and related approaches.

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