

# Need For Cognition and Attitude Persistence

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## NEED FOR COGNITION AND ATTITUDE PERSISTENCE

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### ABSTRACT -

The attitudes of individuals exposed to a television advertisement were assessed immediately after viewing and two days later. Based on predictions derived from the Elaboration Likelihood Model, it was predicted the attitudes of individuals scoring high in need for cognition would be more persistent over time than would quantitatively similar attitudes formed by individuals scoring low in need for cognition. Theoretical and applied implications for the study of attitude persistence are discussed.

### INTRODUCTION

A review of attitude change studies and theories reveals that although a large emphasis has been placed on the processes that lead to initial attitude formation and change (see Insko, 1967; Kiesler, Collins, & Miller, 1969; McGuire, 1969; 1985, Smith, 1982; Petty & Cacioppo, 1981), few studies or theories have addressed the characteristics of attitudes once formed or changed. A theoretical understanding of why some attitude changes are more likely to last over time and/or be more predictive of behavior would seem to have important implications for any discipline seeking to better understand and predict behavior. The area of consumer behavior provides a good example.

The examination of how advertisements influence the attitudes and behaviors of consumers is a fascinating and inherently complex area of study. The determination of the kinds of factors likely to enhance the durability of positive responses to an initial advertisement would seem to be an important area of research. From a practical perspective, marketers have for some time been interested in determining the effects of advertising--if for no better reason than to simply determine the amount of money a firm should spend on advertising. This interest led to a large number of econometric studies on the duration of advertising effects on sales (e.g., Clarke, 1976). Although the econometric approaches suggest that advertisements do have some effect over time at the aggregate level of analysis, such approaches provide little insight as to the psychological processes at the individual level that may mediate the observed effects. A theoretical understanding of the means by which some attitudes toward products might be maintained over time would seem especially useful. A potential benefit of such research is that one may be able to discern the degree to which various promotion or persuasion strategies lead to the formation of more or less durable attitudes--ultimately leading to increased levels of accuracy in attitude-behavior prediction.

Aside from the econometric studies, few studies have examined the delayed effects of advertisements. Most research on advertising effectiveness has focused on attitude and recall measures obtained at one point in time. As a result of this focus, previous research does not appear to have considered the possibility that even though the same advertisement may lead to similar initial levels of effectiveness for two different groups of consumers, the manner in which the attitudes were formed may have been quite different. That is, attitudes that appear identical by common measurement techniques might have very different implications with regard to their ability to last over time. An important goal of the present research is to gain a basic theoretical understanding of how the durability of attitudes formed by exposure to advertisements may be differentially affected by a theoretically relevant dispositional factor. We believe that such an understanding would contribute not only to a greatly enhanced ability of practitioners to create more effective advertisements and promotional campaigns, but would also further our basic understanding of the persuasion process and how advertisements work.

## THEORETICAL FRAMEWORK

Petty and Cacioppo's (1981, 1986) Elaboration Likelihood Model provides a general framework for organizing, categorizing, and understanding the effectiveness of persuasive communications. According to the ELM, persuasion can be characterized as the result of the relative operation of one of two distinct routes to persuasion. One route to persuasion—the central route—occurs following an individual's careful and thoughtful consideration of arguments presented in support of a position. In order for attitude change to take place via the "central route," individuals need to possess both the motivation and ability to effortfully evaluate message arguments. The other route to persuasion—the peripheral route—occurs when motivation or ability to process a message are low and individuals base their judgements on the presence of a simple cue in the persuasion context (see Petty and Cacioppo, 1986 for a complete review).

Importantly, previous research stemming from the ELM framework has shown that situational factors such as the personal relevance of an issue can influence the extent of message processing and the route to persuasion. For example, a study by Petty, Cacioppo, and Schumann (1983) demonstrated that under low relevance conditions, individual's attitudes were most affected by the celebrity status of the product endorsers. In contrast, the quality of product arguments were a more important determinant of the attitudes of individuals exposed to the advertisements under high relevance conditions (see also Petty, Cacioppo, and Goldman, 1981; Petty and Cacioppo, 1984).

An explicit prediction made by the ELM is that attitude changes via the central route should be more persistent (i.e., last longer over time) than quantitatively similar changes via the peripheral route (Petty and Cacioppo, 1986). Existing support for the ELM prediction of differential persistence comes from a study in which a situational manipulation of personal relevance on the issue of senior comprehensive exams influenced the route to persuasion. In that study, Petty, Cacioppo, Haugtvedt, and Heesacker (1986) reported that the attitudes formed by individuals under high relevance conditions showed greater temporal persistence than did the attitudes of individuals formed under low relevance conditions.

## THE PRESENT STUDY

In addition to situational manipulations, the effects of motivation to process information on the attitude change process can also be examined from an individual difference perspective (Cacioppo and Petty, 1982). Along these lines, a recent *Advances in Consumer Research* paper by Haugtvedt, Petty, Cacioppo, and Steidley (1988) describes how the individual difference variable of need for cognition—a measure of the extent to which individuals enjoy thinking—might be useful in understanding how different aspects of advertisements may influence the formation of attitudes toward a consumer product. In their research, Haugtvedt et. al. found that individuals scoring high in need for cognition were more influenced by the quality of arguments contained in an advertisement than were individuals low in need for cognition. Results of a separate study showed that individuals low in need for cognition were more influenced by the attractiveness of the endorsers than were individuals high in need for cognition. Because of the conceptual relationship of the situational factor of personal relevance and the individual difference factor of need for

cognition, the purpose of the present study was to examine the persistence of attitudes formed by individuals low vs. high in need for cognition.

## METHOD

Forty six undergraduates at a large midwestern university participated in the experiment for extra credit in an introductory marketing course. Upon entering the laboratory, subjects were told that the purpose of the study was to obtain ratings of some video advertisements. They were further told that because of the large number of ads to be rated, they would have to attend a second session two days later. Subjects participated in groups of up to six in private cubicles that restricted visual contact. Because subjects listened to the television via headphones throughout the session, verbal contact was also restricted. The advertisements were of local broadcast quality and were presented in the context of a thirty-minute television show on the history of the American Indian. In all, twelve advertisements were presented to the subjects. Evaluation of the ads took place during a 4 minute blank following the presentation of each advertising pod.

While all of the ads in the study could potentially serve as a test of the general issue of attitude persistence, only the advertisement for an unknown brand of telephone answering machine was developed specifically for this study to insure that it contained sufficiently strong arguments and positive peripheral cues. In this specially tested one minute ad, a telephone answering machine was depicted and a long list of features were displayed on the television screen while an announcer described the features. Various visuals were interspersed during the ad, to emphasize the machine's features. Based on previous research (Petty & Cacioppo, 1984; Haugtvedt, Petty, & Cacioppo, 1986; Haugtvedt, et al., 1988) and pretesting, it was expected that the sheer amount of information presented to subjects would serve as a positive persuasion cue for individuals low in need for cognition. On the other hand, it was predicted that the quality of product attributes would be a more important determinant of the attitudes formed by individuals high in need for cognition (see Haugtvedt, et al., 1988; Cacioppo, Petty, & Morris, 1983).

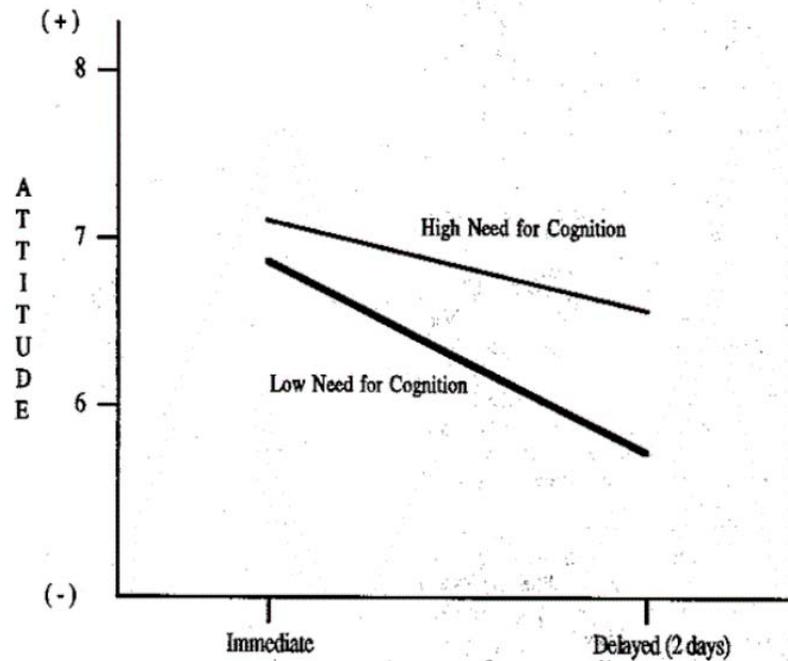
## RESULTS

Subjects completed virtually identical rating forms for all of the advertisements viewed. As a common part of rating form, subjects were first asked to express their opinions about the product portrayed in the ad ostensibly because "opinions about the product might influence the rating of the advertisement." The majority of the questionnaire then consisted of questions developed to maintain the cover story of an ad evaluation study. The initial attitude measure consisted of the extent to which subjects agreed with the statements 1) the Messenger is a good answering machine; 2) the Messenger has desirable features; 3) the Messenger answering machine is appealing to me. The statements were rated on three 9 point disagree-agree scales. Two days after initial exposure to the advertisements subjects returned to the laboratory expecting to rate more advertisements. Instead, they were given a questionnaire regarding their opinions of the advertised products presented in the earlier session. Attitude measures in the second session consisted of statements similar to those used in the first session. In addition, subjects were asked to recall as much information as they could about the answering machine in the earlier advertisement. Finally, subjects completed the need for cognition instrument (Cacioppo, Petty, and Kao, 1984), were debriefed and dismissed. Individuals were categorized as high or low in need for cognition via a median split. A 2 (low vs. high need for cognition) X 2 (immediate vs delayed attitude measurement) mixed design ANOVA revealed the predicted interaction  $F(1,44 = 6.34, p < .01)$ . As can be seen in figure 1 below, although the attitudes of low and high need for cognition individuals were very comparable immediately after the presentation of the advertisement, attitudes of high need for cognition individuals-decayed less over a two day period than did the attitudes of low need for cognition individuals

No significant differences were revealed between low and high need for cognition individuals with regard to recall of product attributes in the second session. Importantly, there was no statistically significant difference between high and low need for cognition individuals in response to the question of "how important or personally relevant was the product or service presented in the ad to you?"

## FIGURE 1

FIGURE 1



#### DISCUSSION

In order to study the issue of attitude persistence, the present study utilized the individual difference variable of need for cognition as an operationalization of the motivation to process information construct. As predicted, the results parallel the results of the Petty, Cacioppo, Haugtvedt, and Heesacker (1986) study in which a situational manipulation was used. The results of the present study also provide an important extension of the Haugtvedt, Petty, Cacioppo, & Steidley (1988) studies by examining the newly formed attitudes of low and high need for cognition individuals over time. The present research points out explicitly that even though two individuals may express similar attitudes immediately after exposure to an advertisement, their attitudes may be quite different after the passage of time. Importantly, by understanding how the initial attitudes may have been formed or changed, one is able to make predictions regarding the kinds of individuals or the kinds of initial attitude formation settings that are likely to be associated with greater attitude persistence.

According to the ELM, attitudes of low vs. high need for cognition individuals should also differ in their ability to predict behavior. In the only study to date on the issue of need for cognition and attitude-behavior consistency, Cacioppo, Petty, Kao, & Rodriguez (1986) obtained the attitudes and voting intentions of university students eight weeks prior to the 1984 presidential election. As expected, the attitudes and voting intentions of high need for cognition individuals were significantly more predictive of actual voting behavior than were the attitudes and voting intentions of low need for cognition individuals. It should be noted, however, that the Cacioppo et al. study did not control for the nature of initial attitude change (i.e., no persuasive messages were presented). The study presented here is the first to demonstrate the differential persistence of newly formed or changed attitudes of low vs. high need for cognition individuals. However, according to the ELM, similar predictions regarding attitude behavior consistency would also be made for newly formed or changed attitudes via the central vs. peripheral routes. Future research is planned to address this question.

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