

All Cues Are Not Created Equal: Obtaining Attitude Persistence under Low-Involvement Conditions

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Attitude persistence research in consumer behavior has been predominantly associated with high- rather than low-involvement processing. Advertising, however, is most often processed as a low-involvement communication. We predict that different low-involvement cues lead to different degrees of attitude persistence. Consistent with this prediction, we find that under low-involvement conditions, when both related and unrelated peripheral cues evoke similar initial attitudes, only when the cue is related to the product category do attitudes persist over time. The results of two studies attest to the robustness of the phenomenon and add to current models of attitude persistence by showing that peripherally processed advertising cues (e.g., brand names and celebrity endorsers) may lead to persistence if they are related to the product being endorsed.

Although much consumer research has investigated how a persuasive message influences initial attitudes, studies investigating attitude persistence have received strikingly less attention. Research on the persistence of attitudes is important for theoretical as well as practical reasons. First, some of the earliest definitions of the attitude construct have often included the word "enduring" (e.g., Krech and Crutchfield 1965). Neglecting this aspect of attitudes calls into question the temporal persistence of the construct. Persistence research can serve to validate the attitude construct as one that is stable rather than a temporary accommodation to situational demands (Cook and Flay 1978). Research on attitude persistence also has great practical significance, particularly in advertising. Because there is generally a delay between ad exposure and the purchase occasion, ad-evoked attitudes must endure over time if they are to influence consumers' purchase behavior.

How, then, can attitude persistence be achieved in advertising? Earlier research indicates that this outcome can be obtained when a message is processed in an elaborate, systematic manner in which message arguments are carefully scrutinized (e.g., Haugtvedt and Petty 1992). This mode of processing is facilitated by high message involvement (see, e.g., Petty and Cacioppo 1986). Advertising, however, is often processed under low-involvement conditions (see, e.g., Goodstein 1993; Krugman 1965). Therefore, focusing on obtaining attitude persistence under low-involvement conditions is an important research goal. In this article, we explore the circumstances under which attitude persistence results even under low-involvement conditions. Specifically, we illustrate how particular ad features may be manipulated in order to produce different degrees of attitude persistence in the same low-involvement context.

CONCEPTUAL FOUNDATIONS

Involvement and Attitude Persistence

Recent research on attitude persistence has primarily used the elaboration likelihood model (ELM) of persuasion as a conceptual base (e.g., Haugtvedt and Petty 1992; Petty and Cacioppo 1986). According to this model, different routes to persuasion are based on the amount of issue-relevant elaboration, that is, message scrutiny, that takes place during message processing. Message involvement is postulated to be one of the critical antecedents

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of message elaboration, with greater involvement leading to greater elaboration.

The ELM provides an explanation for the lack of persistence observed under low-involvement processing. Under low-involvement (low-elaboration) conditions, there is little motivation to deeply process a message, and an attitude is formed primarily by associating the message position with an easy-to-process, peripheral cue. The cursory nature of this process precludes the formation of a strong memory link between the cue and the attitude object. For instance, a likable source may elicit positive affect and cause a positive attitudinal response toward the target, but the source may not get linked to the target in the recipient's long-term memory. Thus, although the cue may be used to form an initial attitude, it can become easily dissociated from the object. Consequently, the cue will not be spontaneously retrievable on future presentations of the attitude object, which leads to attitude decay over time. Under high-involvement conditions, on the other hand, there is a strong link between the message arguments and the attitude object. Thus, attitudes formed under these conditions remain relatively stable over time. The question then becomes, can a cue, under low-involvement conditions, remain associated over time with the attitude object so as to produce attitude persistence?

A recent article by Alba, Marmorstein, and Chattopadhyay (1992) is particularly relevant to answering this question. These authors suggest that some cues may be intrinsically memorable and impact attitudes after delay. For example, a feature frequency cue (i.e., the number of advertised attributes) is typically highly memorable and should therefore exert a persistent impact on attitudes. Alba et al. (1992) test this hypothesis in a mixed-choice context in which subjects choose between a memory brand, which they had been exposed to two days earlier, and a stimulus brand. They find (study 1) that the feature frequency cue prejudices delayed choice in favor of an objectively "weaker" memory brand over an objectively "stronger" stimulus brand when the memory brand has a greater number of attributes than does the stimulus brand. Thus, like the ELM, Alba et al.'s (1992) findings also suggest that cue accessibility affects attitude persistence.

Our article extends earlier research in several important ways. First, earlier studies contrast cue and message persistence. For example, Alba et al. (1992) show that the persuasive impact of certain cues may persist even when memory for message arguments does not. Instead of comparing messages with cues, our article focuses on the differential persistence impact of two evaluatively similar peripheral cues. That is, we explore whether two cues producing the same initial product attitude can produce different degrees of attitude persistence under low-involvement conditions. Second, we explicitly manipulate and measure message involvement in our studies. By doing so, not only can we study cue persistence under low-involvement conditions; we can also explore whether the increased memorability of a cue affects persistence under high-involvement conditions.

Associative Strength

Our basic premise is that a low-involvement cue that forms a stronger memory link with the advertised product should produce greater attitude persistence than one forming a weaker link because a stronger association will result in greater cue accessibility over time (Anderson and Bower 1973). Our goal, then, is to identify a factor that facilitates the formation of stronger links between the cue and the product. One such factor is relatedness, which may be defined as the mutual meaningfulness of two nodes in memory (Anderson 1990). Research based on the associative network model of memory suggests that two nodes that are more related form a stronger association than do two nodes that are less related (Goodman 1980; Srull and Wyer 1989). For example, in the context of an airline ad whose major theme is seating comfort, a picture of a passenger reclining comfortably in his or her seat is likely to be better related to, and therefore better associated with, the ad than is a picture of a flight attendant serving drinks to the passengers (Heckler and Childers 1992).

As used here, relatedness is closely affiliated with three similar concepts: fit, relevance, and appropriateness. Each of these factors has been used elsewhere in the literature to manipulate associative strength (e.g., Heckler and Childers 1992; Park, Milberg, and Lawson 1991).¹ Fit represents the consistency between the brand concept and the cue, with more relatedness represented by a better goodness of fit (Park et al. 1991). In advertising, relevant material has been defined "as material pertaining directly to the meaning of the (ad) theme" (Heckler and Childers 1992, p. 479; the word "ad" is ours) or "whether a stimulus conveys issue-pertinent information" (Miniard et al. 1991, p. 105). Appropriateness is evaluated on the basis of what is deemed as proper for an advertisement (Miniard et al. 1991). Though each concept has subtle differences, the commonality is that better fit, higher relevance, and more appropriateness all lead to stronger memory links between a cue and an attitude object in an associative network. As a result, greater relatedness should be manifested in greater associative strength.

Although there may be several reasons that relatedness leads to greater associative strength, we focus here on the consequences of this effect rather than its antecedents. In the context of a low-involvement persuasion process, we predict that a related ad cue will form a stronger link with an advertised product than will an unrelated ad cue, leading to greater attitude persistence. It is interesting that, on immediate exposure, both related and unrelated peripheral cues can be used as inputs to initial product attitudes (Miniard et al. 1991; Petty, Cacioppo, and Schumann 1983). If both cues are affectively equivalent, the initial product attitude they produce may also be equivalent.

¹We thank one of the reviewers for directing their attention to a major portion of this literature.

lent (Miniard et al. 1991) because of the recency of presentation (Hannah and Sternthal 1984) and the fact that message elements are not processed very carefully under low-involvement conditions (Miniard et al 1991; Shavitt et al. 1994). However, we propose that the stronger association between the related cue and the advertised product will lead to greater cue accessibility on future exposure to the product. Consequently, the related cue is more likely to be used as an input in delayed evaluation, which leads to greater attitude persistence.

Although related cues should produce greater persistence than should unrelated cues under low-involvement conditions by virtue of greater accessibility, it is debatable whether this advantage will extend to high-involvement conditions. In fact, Alba et al. (1992) speculate whether the greater elaboration produced by high-involvement conditions might be sufficient to increase persistence regardless of cue memorability. We test this speculation in our studies. Our design also allows us to replicate prior ELM research in which greater persistence has been demonstrated under high- versus low-involvement conditions (e.g., Haugtvedt and Strathman 1990). Such a replication is desirable in a new context (Monroe 1992).

STUDY 1

Method

Subjects were first-year MBA students at a major West Coast university. They were recruited from classes ranging in size from 25 to 30 students. Seventy-nine students participated in our study, which had three between-subjects factors (message involvement, cue relatedness, and argument strength) and one within-subjects factor (time of measurement). In return for their voluntary participation, subjects were eligible to win a cash prize. Data for study 1 were collected in two stages. In the first stage, subjects viewed an ad for a new brand of mouthwash and reported their attitudes. They also completed several manipulation checks. In the second stage, conducted two days later, subjects again reported their attitudes toward the brand.

Manipulations. To manipulate message involvement, subjects processed the experimental materials under high- or low-involvement conditions. High-involvement subjects read that the ad and product would soon be available in their local area. In addition, they were informed that they were one of only a few groups to evaluate the ads, so their feedback was "extremely important" (Petty et al. 1983). In contrast, low-involvement subjects were asked to review the ad for spelling and grammatical errors. These subjects received no information about the availability of the product in their local area and were asked to refrain from evaluating the ad or product so as not to interfere with their proofreading. This method was adapted from similar low-involvement instructions used elsewhere in the literature (e.g., Gardner, Mitchell, and Russo 1985).

To manipulate cue relatedness, several peripheral cues were pretested to identify a pair of cues (one high and one low in relatedness to the target brand) that evoked evaluatively similar attitudes. On the basis of the pretest results, Jerry Seinfeld, a well-liked television personality, was used as the unrelated cue, and Crest, a respected brand name of oral hygiene products, was used as the related cue. Research on brand extensions indicates that Crest is a relevant and appropriate cue for mouthwash (Aaker and Keller 1990). Recent research on the effects of brand names also provides strong evidence that a brand name is processed as a heuristic cue under low-involvement conditions (Maheswaran, Mackie, and Chaiken 1992). The use of a celebrity endorser as an unrelated cue is consistent with common practice in advertising (e.g., television personality Candice Bergen for the Sprint telephone company) and with typical source manipulations in persuasion research (e.g., Petty et al. 1983).

A pilot study confirmed that the Crest cue was significantly more related to mouthwash than was the Seinfeld cue. Subjects answered two seven-point semantic differential scales anchored by strongly disagree and strongly agree for each of 10 endorsers (five celebrities and five brands) and five product categories. The first statement was, "When I think of (celebrity/brand) as an endorser, (product category) is one of the first products I think about." The second statement was, "The idea of (celebrity/brand) endorsing (product category) represents a very good fit" (MacInnis and Park 1991). Across all conditions, these items factored into a single dimension representing relatedness ($\alpha = .93$) and were averaged to formulate our relatedness measure. As expected, Crest was viewed as significantly more related to mouthwash ($\bar{X} = 5.47$) than was Seinfeld ($\bar{X} = 2.53$; $t(57) = 11.98$, $p < .001$). We recognize that relatedness is actually represented by a continuum but refer here to distinctions between related and unrelated cues for ease of exposition. Subjects also found the two cues equally likable (cf. Miniard et al. 1991).

The third factor we manipulated was argument strength. Because strong arguments are more persuasive than and more differentiated from weak arguments under high but not low message elaboration, a manipulation of argument strength allows for a clear demonstration of the degree of message elaboration prevailing under each of the involvement instructions (Petty and Cacioppo 1986). To manipulate argument strength, a variety of arguments for mouthwash were pretested with additional MBA students. On the basis of this pretest, three strong arguments (outperforming all other brands at reducing bad breath, killing germs on contact according to laboratory tests, and leaving your mouth with a fresh, great-tasting, minty flavor) and three weak arguments (having an easy-to-use cap, coming in an attractive new color, and coming in many convenient sizes) were identified for use in the test ads.

Procedure. Two of the authors came to each class-

room and asked students to participate in a marketing study. Those volunteering for the study were promised a chance to win a cash prize. Experimental booklets were distributed, randomly assigning subjects to eight treatment conditions resulting from all combinations of the three between-subjects factors. Subjects were introduced to the experimental task and received the involvement manipulation as part of their instructions on the cover page. Subjects were asked to read the instructions twice to assure comprehension. Next, subjects reviewed the target ad that had the manipulations of argument strength and cue relatedness embedded in it.

Subjects were exposed to an ad containing the headline "Jerry Seinfeld (Crest) Introduces Ritual Mouthwash." The endorser cue was displayed prominently and in a different font from the name of the mouthwash to focus attention on the cue. Below the headline was another sentence linking the brand to the cue: "Ritual is a great new mouthwash enthusiastically endorsed by Jerry Seinfeld (the makers of Crest)." This was followed by three lines of copy containing either the strong or weak arguments. The ad copy concluded with the statement "Ritual, from Seinfeld (Crest) to you."

After reviewing the ad, all subjects were asked to list any spelling or grammatical errors they had seen. Next, subjects listed all of the thoughts and feelings they had had during the ad review, even those that seemed irrelevant or unrelated to the instructions. After all subjects had completed this first booklet, they were asked to put their names on the front page, and the booklets were collected.

Subjects were then asked to complete a second booklet containing several questions about the ad. First, subjects responded to three questions assessing their brand attitudes (seven-point semantic differential scales anchored by bad and good, dislikable and likable, and unfavorable and favorable). Next, subjects rated how much effort they put into evaluating the brand, how much effort they put into evaluating the ad content, and how much effort they put into checking the ad for grammatical and spelling errors (all on seven-point scales anchored by no effort and tremendous effort). Finally, to check the manipulation of argument strength, subjects rated the importance of each mouthwash attribute and how strongly they would weight each attribute in a purchase decision ($\alpha = .82$). Following completion of this questionnaire, subjects wrote their names on the front page, and the booklets were collected. The cash prize was then awarded, and subjects were dismissed.

Two days later, the experimenters unexpectedly returned to administer the delayed measures. At this time, subjects were again asked to volunteer and were promised another chance to win a cash prize. Subjects received a questionnaire that asked for their evaluation of Ritual Mouthwash using five attitude measures. For the delayed condition, two scales were added to our original attitude measures to assure that attitude persistence was due to actual maintenance of attitude rather than memory for

the earlier measure. Thus, in the second session, prior to responding to the three "old" measures, subjects responded to two new statements on seven-point scales anchored by strongly disagree and strongly agree. The statements were "Ritual is a good mouthwash" and "Ritual is an effective mouthwash." Finally, subjects reported their liking for Crest and Seinfeld (as in Miniard et al. [1991]). Booklets were then signed, collected, and the cash prize was awarded. Subjects were fully debriefed in class after the last class had completed the study.

Results

Manipulation Checks. ANOVA was used to test our predictions and manipulation checks. Subjects in the high-involvement condition reported using significantly more effort in evaluating the ad content and brand than did those in the low-involvement condition (ad content: high = 4.76, low = 3.76, $F(1, 71) = 4.79, p < .05$; brand: high = 4.68, low = 3.68, $F(1, 71) = 6.11, p < .05$). Conversely, low-involvement subjects reported using significantly more effort in proofreading the ad than did high-involvement subjects (high = 2.32, low = 5.45, $F(1, 71) = 62.27, p < .001$). Together, these measures indicate that the instructions specifying the level of involvement were successful.

The involvement manipulation was also tested with the argument strength factor. As expected, we found that strong arguments were rated as significantly stronger than were weak arguments (strong = 3.79, weak = 2.66, $F(1, 71) = 11.61, p < .01$). We then tested the effects of argument strength on brand attitudes across conditions. The interaction of involvement and argument strength on brand attitudes was directionally significant ($F(1, 71) = 1.68, p < .20$). Winer (1971, p. 384) suggests that "specific comparisons that are built into the design or suggested by the theoretical basis for the experiment can and should be made individually, regardless of the outcome of the corresponding overall F test." Planned contrasts indicated that in the high-involvement condition, the ad containing strong arguments led to significantly more positive brand attitudes than did the ad containing weak arguments (strong = 3.84, weak = 2.78, $F(1, 39) = 6.03, p < .05$). In contrast, argument strength had no significant impact on brand attitudes in the low-involvement condition (strong = 3.77, weak = 3.67, $F(1, 36) < 1$, not significant [NS]). Thus, low-involvement instructions resulted in low elaboration and little differentiation between strong and weak arguments in comparison with the high-involvement instructions. It is important that the argument strength factor did not impact any of the persistence results. Therefore, the predicted effects were tested by pooling across this factor.²

Predicted Effects. Attitude persistence effects were

²The persistence data disaggregated by argument strength are available on request. They support the identical conclusions discussed here.

TABLE 1
MEANS AND STANDARD DEVIATIONS BY CONDITION

Involvement and cue type	Initial attitude	Delayed attitude
High, related ($n = 20$)	3.67 (1.51)	3.60 (1.42)
High, unrelated ($n = 21$)	3.00 (1.38)	2.90 (1.35)
Low, related ($n = 16$)	3.52 (1.52)	3.43 (1.40)
Low, unrelated ($n = 22$)	3.86 (1.45)	1.78 (.62)

tested by averaging the item scores for the immediate ($\alpha = .95$) and delayed attitude questions. The delayed attitude index was created by averaging all five scales ($\alpha = .94$). The five-item index for delayed attitudes is used in the article, though identical conclusions resulted from using the original three-item scale or the new, two-item scale at delay. The means of the predicted effects are presented in Table 1 and depicted graphically in Figure 1.

A mixed-model ANOVA, with time as a within-subjects factor, revealed a significant three-way interaction of involvement with time and cue type ($F(1, 75) = 37.32, p < .001$). It is important that the two-way interaction of cue type and time achieved significance under low-involvement conditions ($F(1, 36) = 35.60, p < .01$). This significant interaction indicated that, as predicted, cue relatedness had a significant impact on attitude persistence under low-involvement conditions. Further, simple main effects indicated that under low-involvement conditions, use of the unrelated cue led to a significant decay in product attitude ($F(1, 21) = 55.51, p < .001$), whereas the attitude produced by the related cue did not decay over time ($F(1, 15) = 1.24, p > .20$). Finally, planned contrasts revealed that the delayed attitude was significantly higher for the related cue than for the unrelated cue ($F(1, 36) = 24.31, p < .01$), which provides additional evidence of the greater attitude persistence produced by the related cue. None of the high-involvement effects reached significance. Thus, cue relatedness had no significant effect on attitude persistence under high-involvement conditions ($F(1, 39) < 1, NS$). Finally, there was a significant interaction of involvement with time of measurement ($F(1, 75) = 38.55, p < .001$), which replicates earlier research that demonstrated greater persistence under high-involvement processing than under low-involvement processing (e.g., Haugtvedt and Petty 1992).

Discussion

Study 1 provides strong support for our predictions. Under low-involvement conditions, the use of a related cue was found to produce significantly greater attitude persistence than did use of an unrelated cue. The advantage of the related cue disappeared under high-elaboration processing conditions, and there was more overall persistence across the high-involvement than the low-involvement conditions.

Although these findings are extremely encouraging, we

conducted a second study to examine the robustness of these results under more conservative conditions. Namely, we used filler ads to create a more busy cognitive environment and instituted a delay of one week. In this second study, we also addressed several other concerns. First, although pretests confirmed that our Crest and Seinfeld cues were equivalent in terms of liking (Miniard et al. 1991), we wanted to extend the results to conditions in which both endorsers are celebrities, thus ensuring even greater equivalence.

Second, we wanted to examine more carefully whether a related cue is indeed more likely to be used at delay than an unrelated cue. For example, cognitive responses at delay would provide insights into whether the cue was accessed to form delayed attitudes; consequently, study 2 contained cognitive response measures at delay. Study 1 contained cognitive responses in the immediate condition as an additional manipulation check on elaboration. That is, high-involvement subjects should list more cognitive responses than low-involvement subjects (Petty et al. 1983). However, low-involvement subjects listed several comments about the proofreading manipulation, which rendered the total number of comments an irrelevant manipulation check.

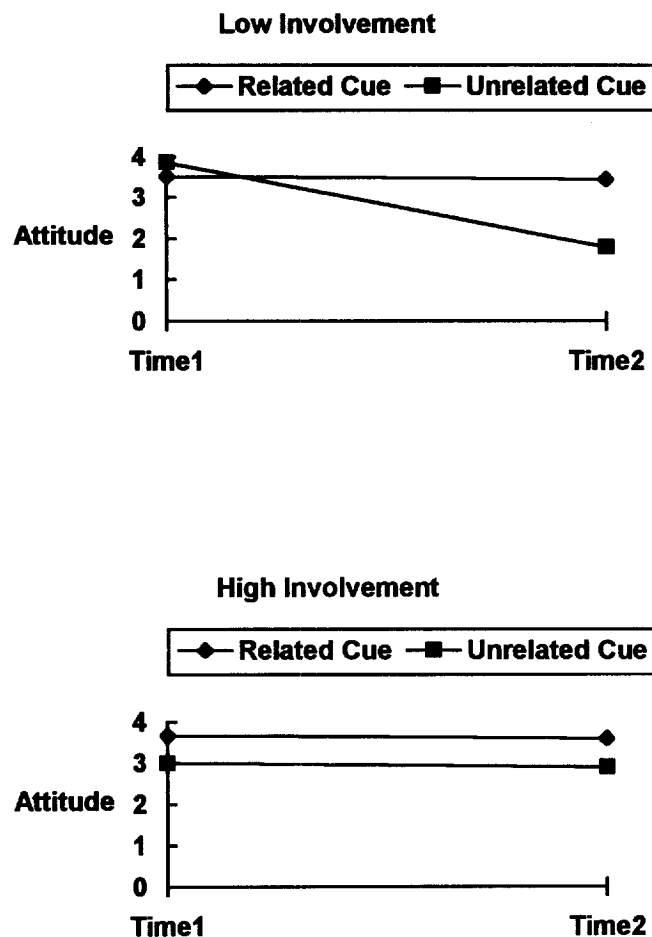
Finally, Petty and Cacioppo (1986, p. 22) suggest that attitude confidence might also affect attitude persistence. Though initial attitudes were equivalent across cue conditions in the low-involvement cells, it may be the case that the attitude was more confidently held for subjects seeing the related cue. Study 2 contained measures of attitude confidence in order to make sure that initial attitudes were held with equal confidence in the low-involvement conditions.

STUDY 2

Method

The second study was designed to test the robustness of the effects found in the first study. Study 2 used the same basic design, stimuli, and measures from study 1, though several important additions were made in order to address the issues discussed above. First, celebrity endorsers were used for both the related and unrelated cue in order to increase cue equivalence. Second, two seven-point, semantic differential scales assessing attitude confidence (anchored by not at all confident and very confident and by very uncertain and very certain; $\alpha = .97$) were taken after subjects provided their attitudes toward the mouthwash. Third, cognitive response measures were added in order to gain insight about the process underlying persistence. Not only should the related cue form a stronger link with the product, it is also more likely to be used as an input in delayed evaluation. Accordingly, in the delayed condition subjects were asked to write down how they had arrived at their opinion of the mouthwash. Our interest is in whether subjects mentioned the cue as influencing their delayed evaluation. Given the

FIGURE 1
PERSISTENCE RESULTS FOR STUDY 1



NOTE.—Diamonds indicate values for related cues, and squares indicate values for unrelated cues.

relative unambiguity of the task, one of the authors simply coded these delayed cognitive responses for the presence or absence of a reference to the cue. No cognitive responses were collected in the immediate condition, since this measure was not successful in study 1. Fourth, in order to test for the strength of the memory link between the cue and the product, subjects were also asked to recall the endorser at delay. Since a gross recall measure may not be very sensitive to differences in link strength, this measure was followed by a measure of ease of recall. Subjects reported how quickly the endorser's name came to mind by circling one of seven options (ranging from "It came to mind immediately" to "It did not come to mind at all"). A stronger link between the related cue and the product should be manifested in greater ease of recall (Anderson 1990) for those subjects who had successfully recalled the endorser. Finally, subjects in study 2 were exposed to filler ads as well as the test ad for mouthwash.

Procedure

Ninety-five MBA students volunteered to participate in study 2. They were promised a chance to win a cash prize for their participation. The experiment was conducted in two sessions, and all subjects participated in both sessions. At session 1, subjects received a booklet containing the test ad embedded between two filler ads (for cereal and laundry detergent). Involvement and argument strength were manipulated exactly as in study 1, but the cue relatedness manipulation was altered in order to increase the equivalence of the two cues. Christie Brinkley was selected as the related endorser for mouthwash, and Joe Montana was selected as the unrelated endorser. These cues were identified on the basis of two pretests carried out with different subjects from the same population used in the main study. One group of pretest subjects was first asked to list celebrities they felt were extremely appropriate and extremely inappropriate endorsers for

mouthwash. A second group then indicated their agreement with four statements regarding the relatedness of these celebrities to mouthwash. The first two statements were the same as in study 1. Two additional measures were added in order to better establish the similarity of our relatedness measure with existing concepts such as relevance (Heckler and Childers 1992) and appropriateness (Miniard et al. 1991). The two additional statements were "I think (celebrity) is a relevant endorser for mouthwash" (as in Heckler and Childers [1992]; Miniard et al. [1991]) and "I think (celebrity) is an appropriate endorser for mouthwash." Subjects were also asked to indicate their liking for the various celebrities. Scores on the scale formed by averaging the four relatedness measures ($\alpha = .97$) indicated that Christie Brinkley was perceived to be an endorser significantly more related to mouthwash than was Joe Montana (Brinkley = 5.12, Montana = 2.83, $F(1, 71) = 99.13, p < .001$), although these two celebrities were equally likable (Brinkley = 5.13, Montana = 5.28, $F(1, 71) < 1, NS$).

The mouthwash ads were formatted as in study 1. After reviewing the ads, subjects in the main study were asked to list the spelling and grammatical errors they found in the ads. They were then asked for their evaluations of the brands advertised, along with how confident they felt about these evaluations. Finally, subjects completed a series of manipulation checks for involvement and argument strength. Measures were taken for all of the advertised products in order to disguise the purpose of the study. After finishing the booklet, subjects wrote their name on the cover and handed in the questionnaire, and the lottery was awarded.

At session 2, conducted one week later, the experimenters unexpectedly returned to the classroom to have subjects fill out another questionnaire. Those participating first provided their opinions of the mouthwash using the five delayed-attitude measures. On the next page, subjects were asked to recall who had endorsed the mouthwash. They then indicated how quickly, if at all, the endorser's name came to mind. Next, subjects were asked to explain why they evaluated the mouthwash as they did. Finally, subjects indicated their liking for Brinkley and Montana. At this point, subjects signed and returned the questionnaires and were debriefed, and a second lottery was awarded.

Results

Manipulation Checks. ANOVA results indicated that subjects in the high-involvement condition expended significantly greater effort evaluating the brand and the ad than did those in the low-involvement condition (brand: high = 4.73, low = 3.83, $F(1, 87) = 8.52, p < .05$; ad: high = 5.10, low = 3.88, $F(1, 87) = 19.59, p < .001$) and significantly less effort proofreading the ad (high = 1.49, low = 4.83, $F(1, 87) = 154.95, p < .001$). Thus, the instructions were successful in manipulating involvement.

Additional support for involvement differences was provided by the argument strength manipulation. As expected, we found that the strong arguments were rated as significantly stronger than were the weak arguments (strong = 4.16, weak = 3.21, $F(1, 87) = 11.05, p < .01$). Next, we tested the effects of argument strength on brand attitudes across conditions. The interaction effect of involvement and argument strength was insignificant ($F(1, 87) = 1.19, p = .28$). However, planned contrasts (see Winer 1971) indicated that strong arguments produced more positive attitudes than did weak arguments in the high-involvement conditions (strong = 4.00, weak = 3.44, $F(1, 51) = 2.98, p < .10$), but had no effect in the low-involvement conditions (strong = 4.15, weak = 3.95, $F(1, 40) < 1, NS$). As in study 1, argument strength did not affect the persistence results. Accordingly, the predicted effects were tested by pooling the data across this factor.

Predicted Effects. The means and standard deviations across conditions are presented in Table 2. As in study 1, persistence effects were analyzed with a mixed-model ANOVA with time as a repeated measure. The three-way interaction between involvement, time, and cue type was significant in this model ($F(1, 89) = 5.14, p < .05$). Analyses also revealed that under low-involvement conditions, the two-way interaction of cue type and time of measurement was significant ($F(1, 39) = 3.65, p < .07$). Thus, as expected, cue relatedness had a significant impact on attitude persistence under low involvement. Simple main-effects analyses of the low-involvement data further showed that, though attitudes decayed significantly over time for the unrelated cue condition ($F(1, 20) = 22.60, p < .001$), attitudes produced by the related cue did not decay over time ($F(1, 19) = 2.90, p > .10$). Finally, planned contrasts using delayed attitude as a dependent variable showed that the related cue produced a significantly higher delayed attitude than did the unrelated cue ($F(1, 39) = 4.55, p < .05$), which provides additional support for the greater persistence yielded by the related cue under low-involvement conditions. None of the persistence effects reached significance under high-involvement conditions. As in study 1, cue relatedness did not affect high-involvement subjects' attitude persistence ($F(1, 50) = 1.45, p > .20$). Finally, we found a significant two-way interaction between involvement and time ($F(1, 89) = 14.96, p < .001$), which replicates earlier findings documenting the overall impact of involvement on attitude persistence (e.g., Haugtvedt and Petty 1992).

The cognitive response measures (see Table 2) provided additional support for the advantages associated with the related cue under low-involvement conditions. Analysis of subjects' reasons for their delayed evaluations showed that under low-involvement conditions, a greater proportion of subjects in the related cue condition mentioned using the cue to form their evaluations than did subjects in the unrelated cue condition (related = 38.9 percent, unrelated = 10 percent; $\chi^2(1) = 4.38, p < .05$).

TABLE 2
MEANS AND STANDARD DEVIATIONS BY CONDITION

Involvement and cue type	Initial attitude	Initial attitude confidence	Delayed attitude	Cue recall	Ease of recall ^a	Mention of cue
High, related (<i>n</i> = 29)	4.09 (1.07)	4.96 (1.31)	4.02 (.75)	.76 (.43)	6.54 (.74)	.28 (.45)
High, unrelated (<i>n</i> = 24)	3.33 (1.21)	4.17 (1.68)	3.55 (1.12)	.70 (.46)	6.58 (.62)	.32 (.48)
Low, related (<i>n</i> = 21)	4.06 (.97)	4.20 (1.45)	3.74 (.87)	.67 (.48)	6.07 (.92)	.39 (.50)
Low, unrelated (<i>n</i> = 21)	4.04 (.92)	4.02 (1.13)	3.10 (1.02)	.47 (.51)	5.10 (1.20)	.10 (.31)

^aSpeed was analyzed only for those subjects recalling the endorser. Thus, cell sizes are reduced; high, related = 22; high, unrelated = 17; low, related = 14; low, unrelated = 10.

This result indicates that the related cue was more likely to be used in forming delayed evaluations.

There were no significant effects of the cue on recall in the full model, though planned contrasts indicated that recall was somewhat greater under high-involvement than under low-involvement conditions ($F(1, 93) = 2.86, p < .10$). In low-involvement conditions, the related cue was recalled slightly more often than the unrelated cue ($F(1, 40) = 1.54, p < .22$). For those subjects who successfully recalled the endorser (*n* = 63), we also measured their perceptions of how quickly the endorser came to mind (ease of recall). Overall, high-involvement subjects reported recalling the endorser significantly faster than did low-involvement subjects ($F(1, 59) = 18.99, p < .01$). It is important that the main effect of involvement was qualified by a significant interaction with cue type ($F(1, 59) = 5.07, p < .05$). Planned contrasts revealed that, as expected, subjects in the low-involvement conditions reported recalling the cue significantly more quickly when it was related than when it was unrelated ($F(1, 22) = 4.69, p < .05$).

Study 2 also contained attitude confidence measures in order to check whether cue relatedness had any effect on the confidence with which initial attitudes were held. There were no significant main effects or interactions on this measure. The fact that cue relatedness did not impact attitude confidence under low-involvement conditions rules out the possibility that differences in persistence are due to any differences in confidence.

Discussion

Study 2 attests to the robustness of the findings from the first study. Under more conservative testing conditions (i.e., filler ads and one week delay), we found that the use of a related ad cue increased attitude persistence under low-involvement conditions. We again showed that attitude persistence is greater, in general, under high-involvement than under low-involvement conditions. In addition, we found that cue relatedness did not impact persistence under conditions of high involvement, only under conditions of low involvement. This result supports the proposition that high-involvement processing itself can result in persistence irrespective of the cue type. It is conceivable,

however, that even under high-involvement conditions, cue memorability could impact persistence given longer delays than used here (see Alba et al. 1992). Finally, study 2 provided evidence consistent with our accessibility explanation for the effects of cue relatedness. Thought listings showed that the related cue was more likely to be used in delayed evaluations than was the unrelated cue. Also, our measure of ease of recall provided support for this perspective, though this self-report measure has its limitations in that it is not a direct test of response latency.

Why might related cues be more accessible? The process we suggest is based on the related cue's forming a stronger link with the product during message exposure. It is also plausible that greater accessibility stems from processes operating at the time of recall, for example, that exposure to a mouthwash evokes a well-known model (Brinkley) more readily than it does an athlete (Montana) (or Crest over Seinfeld in study 1).³ The present study does not allow us to distinguish between these two possibilities. However, we are currently concerned not so much with the specific reasons for the well-documented accessibility of related cues (see, e.g., Goodman 1980; Heckler and Childers 1992) as with the effects of this greater accessibility on persistence. This approach is consistent with Alba et al.'s (1992) focus on the persistence effects of the memorability of frequency cues instead of the antecedents of this memorability.

GENERAL DISCUSSION

Major Implications

The key point of our research is that under low-involvement conditions different peripheral cues may not be equivalent in terms of the attitude persistence they produce. Specifically, a cue that is strongly associated with the advertised product can produce greater attitude persistence than can one that is less associated with the product, even when the two cues evoke equivalent initial attitudes.

³The authors thank the associate editor for bringing this to their attention.

Results from our studies are consistent with current models of persuasion such as the ELM (see, e.g., Petty and Cacioppo 1986) and the availability valence model (AVM; Hannah and Sternthal 1984). For instance, the ELM predicts that under low-involvement conditions initial attitudes are affected by cues such as celebrity endorsers or famous brand names. Similarly, the AVM predicts that message cues may have an attitudinal impact immediately after exposure because of a recency effect, though they may become dissociated over time, which leads to the well-known sleeper effect. Thus, immediately after message exposure, both related and unrelated cues can affect product attitudes, even under low-involvement conditions. Both models, however, suggest that only those cognitions that are available in memory impact attitudes after a delay. For example, in the AVM framework a sleeper effect occurs when there is little elaboration of a negative source compared with that of a positive message, which leads to source dissociation over time (Hannah and Sternthal 1984). In our study, we show that dissociation of a positive source and a positive message undermines persuasion and that dissociation depends on cue relatedness, apart from the resources devoted to processing.

Our studies extend the ELM and the AVM by applying these frameworks under low-involvement conditions. Both of these models suggest that delayed accessibility, and hence persistence, is increased by greater elaboration during message exposure. We show that even when on-line elaboration is low, cues strongly linked with the advertised product increase persistence. While this represents an important extension of earlier research, it does not contradict existing models that suggest that persistence is produced by elaboration. The stronger association formed by the related cue could result from pre-exposure elaboration. That is, the relation between the cue and the product may have been thought about before exposure to the message. For example, it is possible that subjects had already formed a strong memory link between Crest and mouthwash prior to message exposure. So although elaboration may still drive persistence, it may be possible to take advantage of pre-exposure elaboration to generate persistence under conditions of low message elaboration. We suggest that cues (e.g., brands, endorsers) that are related to the advertised product are more likely to evoke pre-exposure elaboration, though we leave the test of this proposition to future research.

Our findings also build on the research by Alba et al. (1992). They suggest that some low-involvement cues may be highly memorable and have an impact even after delay. Our findings support the notion that greater cue accessibility yields greater persistence. We extend this position in several ways. In their research, Alba et al. (1992) did not manipulate involvement at the time of message encoding. In our studies, we specifically manipulate and verify that two levels of involvement were operating during encoding. Though Alba et al. (1992) describe initial involvement as low across their experiments, their subjects were still able to choose the objectively

superior brand (with stronger attributes) over the inferior brand (with weaker attributes). In our low-involvement conditions, subjects were unable to differentiate between strong and weak arguments in terms of their initial product attitudes. Thus, we replicate Alba et al.'s (1992) findings under even lower-involvement conditions and extend them to a context of judgment versus choice. We also provide preliminary evidence that cue memorability may not affect attitude persistence under high-involvement conditions, though as stated earlier, this proposition needs to be validated under more open-ended delay conditions.

Finally, earlier research in the area has typically compared the differential impact of message arguments against peripheral cues (Alba et al. 1992; Hannah and Sternthal 1984). Our tests involved comparing two evaluatively similar cues that differ in terms of their relatedness to the product advertised. Our results show that not all peripheral cues and processes are created equal. The ELM-based research typically has not distinguished between affectively equivalent peripheral cues in low-involvement contexts. Our studies find that related peripheral cues have different long-term consequences than unrelated peripheral cues. Under low-involvement conditions, though both related and unrelated peripheral cues evoke similar initial attitudes (which are held with equal confidence), only the attitude formed on the basis of exposure to the related cue is likely to persist over time.

Our findings also address existing research pertaining to cue relevance. Several articles suggest that cue relevance may not be an important factor under low-involvement conditions because it does not affect initial attitude extremity. For example, Miniard et al. (1991, study 2) manipulated the product relevance of two equally attractive pictures. They found that under immediate conditions, the picture manipulation did not impact low-involvement product evaluations even though the two pictures differed in their relevance to the advertised product. Analogously, Shavitt et al. (1994) suggest that cue effectiveness involves a two-step process. In the first stage, a salient cue is attended to, and in the second, the relevance of the cue to the issue is judged. If the cue is judged to be relevant, then the cue is processed in an elaborate manner and impacts product evaluation. According to Shavitt et al. (1994), low involvement prohibits the judgment of relevance, which explains why cue relevance does not impact initial attitudes under these conditions. Our research supports and extends this position. Although we agree that cue relatedness (relevance) may not affect initial attitude extremity under low-involvement conditions, our results demonstrate that it can directly impact low-involvement attitude persistence. Thus, increasing relatedness under low-involvement conditions acts much like increasing overall involvement in that both types of increases lead to greater attitude persistence.

Concluding Remarks

It should be noted that the manipulations used in the current set of studies can be improved on in future re-

search. In both studies, although care was taken to ensure that the cues were equally likable, the cue relatedness manipulation was defined by the specific endorsers used in the ads. For example, it might be argued that the persistence results were due to Brinkley and Montana differing in some respect other than relatedness to mouthwash. While the fact that a similar pattern of results was obtained in both studies, using different operationalizations of cue relatedness in each, alleviates this concern to some extent, future research should strive to avoid this limitation.

The manipulation of low involvement that was used in both studies is also limited in certain respects. Specifically, manipulating low involvement by having subjects perform a proofreading task is atypical of real-world ad exposure. Consumers, however, are often distracted by other tasks during ad exposure, which leads to the shallow level of processing that was induced in the studies reported here. Thus, though our manipulation of low involvement is different from several other ELM-related studies (e.g., Petty et al. 1983), distracting subjects to induce low elaboration has been used elsewhere in consumer studies (Park and Young 1986).

In addition to addressing these limitations, future research should look at other mediators of attitude persistence such as attitude confidence (Petty and Cacioppo 1986) and the organization (by valence) of message-evoked thoughts (Boninger 1993). Both factors are hypothesized to be positively related to persistence. One challenge for consumer researchers interested in advertising effects consists of incorporating these mediators in low-involvement advertising contexts. Another opportunity for future research lies in exploring attitude resistance, a measure of advertising effectiveness that is related to, but distinct from, attitude persistence (Haugtvedt and Petty 1992). Attitudes formed under high-involvement conditions have been found to be resistant to counter-messages (Petty and Cacioppo 1986). The proliferation of comparison advertising tactics (see, e.g., Campbell and Sengupta 1994) indicates that resistance to counter-messages will be vital to the success of many ad campaigns. Our results lead us to speculate that peripherally processed ads can be made more resistant to counter-messages by including a product-related cue in the ad.

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