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# When the Product is Complex, Does the Advertisement's Conclusion Matter?

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*This study was made for two purposes. The first was to replicate the study of Sawyer and Howard (1991), which found that the effects of persuasion in open-ended advertisements were greater than those of closed-ended advertisements when the audience was involved in processing the ads. The second was to examine a potential boundary condition of these findings based on complexity of the product featured in the advertisement and the audience's ability to process the information. An experiment using 211 student subjects replicated the results of Sawyer and Howard when the same low-complexity product was featured in the target advertisement. However, the results of the analysis of variance (ANOVA) and logistic regression (LOGIT) analyses on four measures of persuasion (attitude toward the brand, effort, purchase intention, and choice) showed that the effects Sawyer and Howard found for their relatively simple product (razor) did not hold for a complex product (CD player) except for purchase intention. Further examination of the role of the subject's ability to process the complex product advertisement showed little difference from the overall group in the complex product condition. J BUSN RES 2000. 48:55-62. © 2000 Elsevier Science Inc. All rights reserved.*

Although communication researchers have predicted that open-ended messages should be more persuasive than closed-ended messages, most empirical research has been unable to support an advantage to open-ended advertising messages. One recent empirical study did find an advantage to open-ended ads (Sawyer and Howard, 1991). The purpose of this study is to replicate the Sawyer and Howard study, then to extend their study by testing potential boundaries of the effects they found. This study examines factors thought to influence the effectiveness of open-ended advertise-

ments, specifically product complexity, motivation to process the message, and ability to form conclusions.

Open-ended ads do not contain a specific conclusion, and they may even invite the readers to form their own conclusions. Closed-ended ads follow a process of deductive reasoning and present a conclusion to the readers. Open-ended messages require the audience to generate their own conclusions about the message, thus this audience's subsequent attitudes are expected to be more positive, more accessible, and more persistent over time than those of an audience exposed to a closed-ended ad (Kardes, 1988; Lichtenstein and Srull, 1985; Sawyer and Howard, 1991). At the same time, allowing or asking an audience to draw its own conclusions can be risky if the audience is neither motivated nor able to make spontaneous inferences (Petty and Cacioppo 1986; MacInnis, Moorman, and Jaworski, 1991). Prior research has linked open-ended messages to positive audience attitudes (Lindner and Worchel, 1970), memory accessibility (Kardes, 1988; Stayman and Kardes, 1992) and involvement (Sawyer and Howard 1991).

## Research History

Study of the persuasiveness of open-ended versus closed-ended messages began in the 1950s, when some researchers found no difference in persuasiveness (Thistlewaite, deHaan, and Kamenetsky, 1955), or greater persuasiveness of closed-ended messages (Fine, 1957; Hovland and Mandell, 1952). Active research waned until the 1980s, when Petty, Cacioppo, and Schumann (1983) resurrected interest as an application of the elaboration likelihood model (ELM) of attitude change.

Following Petty, Cacioppo, and Schumann (1983), Kardes (1988) examined the effect of audience involvement on the impact of open-ended and closed-ended advertisements of a

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relatively complex product, a CD player. Although Kardes found differential effects of involvement on brand attribute accessibility, he found no difference in attitudes. Following Kardes, Sawyer and Howard (1991) also manipulated an audience's motivation to process open-ended messages by means of their involvement with a targeted product. They were the first to find support for a persuasive advantage to open-ended messages (as opposed to closed-ended messages) for brand attitude, purchase intention, and choice, if, and only if, the audience was involved. Their rationale was that a sufficiently motivated audience will centrally process the message's premises, enabling them to draw the conclusion intended by the message (Petty and Cacioppo, 1986). Sawyer and Howard (1991) attributed their support for the persuasive advantage of open-ended messages to several factors: (1) the audience was motivated to process the message; (2) the message was simple; and (3) the ad contents had to be read and integrated to identify the superior brand, because the sponsor was not clearly identified.

## Audience Ability

In addition to the reasons stated, this study proposes that both products used by Sawyer and Howard (1991) were fairly simple (i.e., a disposable razor and a toothbrush) so that the audience had the ability to form conclusions on its own. As a result, this study seeks to understand better the boundary conditions under which open-ended messages offer a persuasive advantage by exploring aspects of consumers' motivations and abilities to process open-ended persuasive messages.

Consumers' level of processing from ads is believed to be influenced by their motivation, ability, and opportunity (Petty and Cacioppo, 1986; MacInnis and Jaworski, 1989; MacInnis, Moorman, and Jaworski, 1991). In this study, opportunity was held constant across all subjects. Although motivation has been broadly defined as goal-directed arousal (MacInnis, Moorman, and Jaworski, 1991), most prior research on open-ended conclusions has used involvement as a measure of motivation (Kardes, 1988; Sawyer and Howard, 1991). To replicate Sawyer and Howard, this study examines the influence of involvement as an indicator of motivation on the persuasive capability of open-ended advertisements.

Although ability is also believed to be a large influencer on consumers' level of processing from ads, no prior research on open-ended messages has examined the effect of this factor. Ability is typically interpreted as the consumers' skills or proficiencies in interpreting information (MacInnis, Moorman, and Jaworski, 1991). In Sawyer and Howard's (1991) study, ability was not a relevant issue, given the simplicity of the target products—disposable razors and toothpaste. Most consumers would have little difficulty interpreting information about these products. This study utilizes a simple product (disposable razor) and a complex product (compact disc player) to

understand the influence of ability on the persuasiveness of open-ended messages better.

As with Sawyer and Howard (1991), indicators of persuasion in this study include attitude toward the brand, effort to evaluate the brand, purchase intention, and choice. In examining the boundary conditions of motivation and ability that influence the persuasiveness of open-ended ad messages, this study manipulated involvement and product complexity and measured product knowledge. Figure 1 shows the proposed model tested in this research effort.

## Subsequent Research Relying on Sawyer and Howard's (1991) Findings

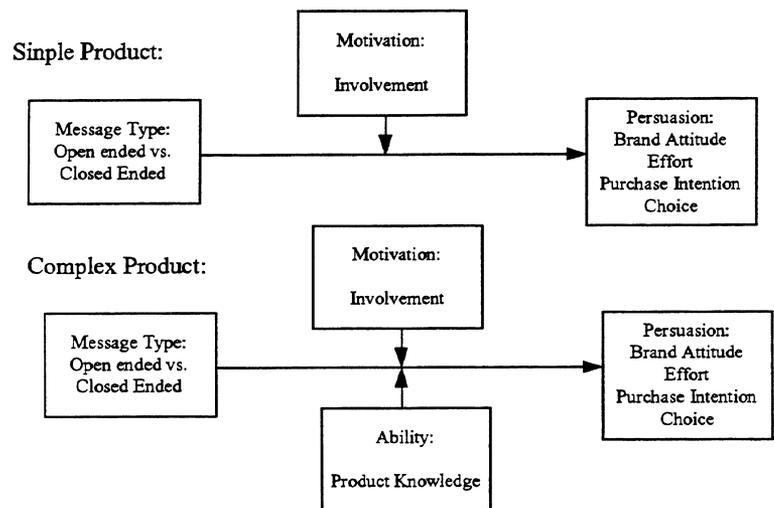
Several studies have relied on the research findings of Sawyer and Howard (1991). Because of this extensive reliance, replication of their findings as well as determination of boundary conditions is critical for providing accurate direction for future research. MacInnis and Stayman (1993) found that highly involved consumers prefer to draw their own conclusions and, therefore, may dislike closed-ended advertisements. Peracchio and Meyers-Levy (1994) provided support for Sawyer and Howard's (1991) findings in their examination of cropped objects in photographs in advertisements. In a similar vein, two articles, Johar (1995) and Moon and Tikoo (1997), relied on the findings to develop a theory surrounding the consumers' formation of inferences when information is either deceptive or missing. Sawyer and Howard's (1991) findings have also been extended to broadcast advertising in an examination of the use of silence in television commercials (Olsen, 1994).

## Hypotheses

The first purpose of this study was to replicate Sawyer and Howard's (1991) findings regarding involvement and open-ended ads. Based on Sawyer and Howard findings and their rationale that the audience must be motivated (and able) to reach a conclusion from open-ended ad messages, we offer similar hypotheses regarding the persuasiveness of open-ended ad messages for simple products. Most consumers should be able to interpret information regarding a simple product (razor). That is, a consumer would not need to be knowledgeable about razors to understand the ad's attributes of closeness of shave, consistency of blade manufacturing, number of shaves per blade, resistance to skin nicks and cuts, and price per blade. Thus, ability is not expected to affect the persuasiveness of open-ended ads for simple products.

Following Sawyer and Howard, we hypothesize that:

*H1:* For simple products, open-ended ad messages are more persuasive than closed-ended ads when the audience is motivated to process the advertised product message.



**Figure 1.** Models of factors for simple and complex products.

The second purpose of this study was to extend Sawyer and Howard's (1991) findings to complex products. Given that open-ended ad messages seem to be more persuasive than closed-ended ones when the audience is motivated (or involved) with the targeted product for simple products, motivation is expected to be an critical factor in processing ad messages for complex products, as well. At the same time, although most consumers should be able to process ad information about such a simple product as a razor, we would expect consumers in have a greater range of knowledge about a complex product like a compact disc player. In addition, research has shown that low-knowledge subjects have more difficulty than high-knowledge subjects in making spontaneous inferences about a product (Lee and Olshavsky, 1995). Thus, with complex products, we would expect that open-ended messages will only be more persuasive when subjects are both motivated and able to draw conclusions. This leads to the following hypothesis:

- H2: For complex products, open-ended ad messages are more persuasive than closed-ended ad messages when the audience is both involved and able to process the advertised product message.

## Method

### Subjects and Design

Subjects were 211 undergraduates from two large midwestern universities who received extra course credit for volunteering to participate. They were randomly assigned to conditions in a 2 (product complexity: simple or complex)  $\times$  2 (message type: open-ended and closed-ended)  $\times$  2 (involvement: involved or uninvolved) between-subjects factorial design. In addition, all subjects completed a three-item scale of subjective product knowledge (level of knowledge, ability to operate, and level of familiarity). Reliabilities for the items were acceptable (Cronbach  $\alpha = .73$ ), and factor analysis showed the three

items to be a single factor. A median split was used to assign subjects to high- and low-knowledge groups.

### Procedure

The procedure was identical to that used by Sawyer and Howard (1991). Each subject was given an ad booklet and a questionnaire. An introductory page in the booklet instructed subjects to take as much time as they wanted for each ad, but not to turn back to previous ads. (Each of the nine ads in the booklet was preceded by a page with a brief introduction explaining how an ad agency was planning to use the ad [e.g., "This advertisement is another in a long series for a national tire company. It is scheduled to be run nationally if no problems arise in pretesting."]).

The ad booklet contained photocopies of nine actual and bogus ads, with the target ad as the sixth ad. The target ad for the simple product condition (razor) was identical to that used by Sawyer and Howard (1991). Subjects completed the questionnaire after they had finished reading the ad booklet. Questions were included to assess demand characteristics, but no subject seemed to have guessed the study's purpose. At the end of the session, subjects were given a debriefing statement to read.

### Independent Variables

**PRODUCT COMPLEXITY.** In his research on spontaneous inference generation, Kardes (1988; Stayman and Kardes 1992) used a compact disc player as a complex product. To confirm that a compact disc player was appropriate for our subject pool, a number of pretests were conducted. First, a group of undergraduate students similar to the subject pool was asked to list products in which they would be interested. Three of the most frequently mentioned products in the same general price range (compact disc player, video cassette recorder, pocket camera) were selected from this list for further investigation.

The second set of pretests tested prior knowledge of these selected products with three items (knowledgeable, familiar with, and use frequently). The compact disc player was selected, because it had the highest complexity rating and the greatest variance on these knowledge items. This pretest also included free recall questions to determine those existing brand names for which the subjects may have positive and negative global attitudes. The three brands that were lowest on recall (Phillips, Onkyo, and Kenwood) were chosen to limit one brand's dominant image from affecting the results.

In a third pretest, subjects were given a list of product attributes obtained from *Consumer Reports'* ratings of compact disc players and were asked to rank order the seven most important attributes for a compact disc player. As with Sawyer and Howard (1991), we retained the five attributes ranked highest on importance for use in the target ad (frequency of complaints/repairs, bump immunity, convenience of use, programmability, and disc-error correction).

(In addition to pretesting the complex product, we conducted a series of pretests varying the levels of message complexity in the target ad. Originally, we hypothesized that message complexity was the mechanism through which product complexity would operate. A series of three pretests was conducted both within and between subjects to manipulate both message format and specific attribute language. Unfortunately, none of these pretests revealed a consistent significant difference in the subjects' perception of message complexity. Based on these results, the experiment was conducted using simple and complex products and holding message complexity constant across products.) Further pretests indicated that the compact disc player was considered more complex than the disposable razor ( $p < 0.001$ ).

For the final ads, a copy of Sawyer and Howard's (1991) disposable razor ad was obtained. The compact disc player ad was designed to look exactly like the disposable razor ad, with appropriate changes for brand name, attributes, and product picture. For both ads, the fictitious brand was reported in the attribute matrix to have fared best on the three most important attributes, tied for best on the fourth attribute, and tied for second on the fifth attribute. As with Sawyer and Howard, subjects had to read the information for each brand to determine its relative rating.

**MESSAGE TYPE.** As with Sawyer and Howard (1991), the brand/attribute matrix in each ad was followed by either the open-ended or the closed-ended conclusion. The open-ended conclusion stated, "Now that you know the difference, decide for yourself which disposable razor (compact disc player) you should buy." The closed-ended conclusion stated, "Now that you know the difference, shave with Edge (buy Nexcen) the disposable razor (compact disc player) that is best for you."

**INVOLVEMENT.** The involvement manipulation was similar to the procedure used by Sawyer and Howard (1991) and Petty, Cacioppo, and Schumann (1983). For the complex

product, participants in the high-involvement condition were informed they would be automatically entered in a raffle for the compact disc player of their choice. To maintain involvement in the experiment constant, but differentiate involvement in the ad, participants in the low involvement condition were informed they would be entered in a raffle for a \$20 dinner gift certificate.

For the simple product, the manipulation was identical to Sawyer and Howard (1991), in that high involvement subjects were told that they would get their choice of a disposable razor at the end of the experiment. Low-involvement subjects were told they would be given their choice of toothpaste. In addition, high-involvement subjects in both product categories were told in the introduction to the target ad that the advertised product would soon be test marketed in four local cities including the subject's own; whereas, low-involvement subjects were told the product would be test marketed elsewhere.

**PRODUCT KNOWLEDGE.** As discussed previously, this variable was measured, and subjects were divided into high and low groups for each variable, based on a median split. The median split was performed within product type and across the entire sample, depending upon the analysis.

**DEPARTMENT MEASURES.** As mentioned earlier, Sawyer and Howard (1991) used effort to evaluate brand, brand attribute beliefs, attitude toward using the brand, purchase intention, and choice as indicators of persuasion. Dependent variables in this study included similar measures of effort, brand attitude, purchase intention, and choice. The questionnaire was designed to imitate that of Sawyer and Howard, including the same format and wording of comparable measures and the same order of presentation for the measures. Comparative reliabilities (between the two studies) for the multi-item scales are reported in Table 1.

(For effort on the ad, subjects indicated on three items the extent to which they expended effort to think about the product and ad information. A mean of the items was used for the analysis. Attitude toward each brand was measured by four 8-point semantic differential items. Factor analysis shows that these items are a single factor, and, therefore, a single mean of the four items was used in the analysis. Two ratings of the likelihood of buying each brand were used to measure purchase intention. The first was a 4-point item: definitely would not buy, might or might not buy, probably would buy, definitely would buy. In the second rating, subjects indicated the percentage that they were likely to consider buying each of the brands. The latter rating was converted to a 4-point scale, and a mean of the two items was used in the analysis. Choice was indicated by the subjects indicating the brand of disposable razor they wanted to receive (in the simple product condition) or their choice of a compact disc player, should they win the raffle (in the complex product condition.)

**Table 1.** Comparison of Significant Findings for Simple Product Replication

	Brand Attitude		Effort		Purchase Intention		Choice	
	S&H	New	S&H	New	S&H	New	S&H	New
Main effects								
Conclusion	**	**	**	**	**	ns	ns	ns
Involvement	**	ns	**	*	**	ns	**	*
Interaction								
Conclusion × involvement	**	ns	ns	*	**	*	**	**
Direct cell comparison	**	**	ns	ns	**	**	*	**
Scale reliabilities (Cronbach $\alpha$ )	0.96	0.95	0.79	0.77	0.88	0.80	Single item	

\*\* =  $p < 0.05$ .\* =  $p < 0.10$ .

ns = not significant.

S&amp;H = Sawyer and Howard(1991).

New = this study.

## Results

### Manipulation Checks

**INVOLVEMENT.** Subjects were generally aware of which product was offered as a gift. Overall, 93.3% of subjects correctly identified which gift they were offered. For the complex product, 92.1% of the subjects were aware of the correct gift (94.8% for high involvement compared to 89.3% for low involvement). For the simple product, 95% of the subjects were aware of the correct gift (94.9% in high involvement, as compared to 100% for low involvement). These percentages are comparable to those of Sawyer and Howard (1991) and Petty, Cacioppo, and Schumann (1983).

**MESSAGE TYPES.** The closed-ended conclusion was rated as having a more “explicit conclusion” (closed = 4.4, open = 3.53);  $F(1,193) = 14.357, p < 0.01$  and was rated as having an “obvious conclusion” (closed = 4.55, open = 5.49;  $F(1,193) = 9.174, p < 0.01$ ).

### Results for the Replication: Simple Product

Comparison of the findings with Sawyer and Howard (1991) are presented in Table 1. All tests are one-tailed, because the hypothesized directions are consistent with Sawyer and Howard. The means and proportions of these dependent measures for the open-ended and closed-ended conditions are reported in Table 2.

**ATTITUDE TOWARD THE BRAND.** For the subjects in the simple product condition, ANOVA analysis shows that the over-all main effect of conclusion ( $F(1,104) = 7.94, p < 0.01$ ) to be highly significant, but the over-all main effect of involvement ( $F(1,104) = 0.114, p = 0.36$ ) and the over-all ad conclusion by involvement interaction ( $F(1,104) = 0.023, p \leq 0.44$ ) are not significant. When focusing only on the high-involvement condition, the simple main effect of ad conclusion for involved

subjects is significant ( $F(1,63) = 5.547, p = 0.01$ ). These results are consistent with the results in Sawyer and Howard (1991) and provide support for *H1*.

**EFFORT.** For the subjects in the simple product condition, ANOVA analysis shows that the over-all main effect of conclusion ( $F(1,104) = 5.94, p = 0.01$ ) to be highly significant; whereas, the over-all main effect of involvement ( $F(1,104) = 2.188, p = 0.07$ ) as well as the ad conclusion by involvement interaction ( $F(1,104) = 1.6904, p = 0.08$ ) are marginally significant. The simple main effects of ad message  $F(1,63) = 1.08, p = 0.15$  was not significant. Again, Table 1 shows our findings for effort closely mirror those found by Sawyer and Howard (1991), who found main effects but did not find significant interaction effects.

**PURCHASE INTENTION.** Although our over-all main effects of conclusion ( $F(1,104) = 0.844, p = 0.18$ ) and involvement ( $F(1,104) = 0.004, p = 0.48$ ) are not significant, the ad message by involvement interaction ( $F(1,104) = 2.01, p = 0.08$ ) is marginally significant, and the simple main effect of ad conclusion ( $F(1,63) = 3.07, p = 0.04$ ) was significant. The interaction effects are the same as Sawyer and Howard's (1991), and our findings provide mixed support for *H1*.

**CHOICE.** A logistic regression (LOGIT) analysis was used for the dichotomous dependent choice variable. The main effect of ad conclusion is not significant (Wald = 1.19,  $p = 0.13$ ); whereas, the main effect of involvement is marginally significant (Wald = 2.17,  $p = 0.07$ ). Both the over-all ad conclusion by involvement interaction (Wald = 3.85,  $p = 0.03$ ) and the simple main effect of ad conclusion (Wald = 3.11,  $p = 0.04$ ) are significant. These findings closely mirror Sawyer and Howard's (1991), and general support for *H1*.

**SUMMARY.** Overall, the results of this study provide support *H1* and provide replicational support for Sawyer and Howard's (1991) findings.

**Table 2.** Cell Means of Open-ended and Closed-Ended Conclusions across Product Types

Message type	Simple Product		Complex Product		Complex/ High Knowledge	
	Open-ended	Closed-ended	Open-ended	Closed-ended	Open-ended	Closed-ended
Attitude toward the brand	6.10	5.39	5.17	5.02	5.12	5.29
Effort to evaluate brand	3.90	3.54	3.90	3.62	4.02	3.42
Purchase intention	3.00	2.71	2.59	2.18	2.62	2.13
Brand choice (%)	61.3	38.7	22	17.9	20	18.2
Sample size	31	33	27	28	15	12

Note: All conditions under high involvement.

### Results for the Extension: Complex Products

*Hypothesis 2* predicts that, for complex products, open-ended ad messages are more persuasive than closed-ended ad messages when the respondents have both higher levels of involvement with the advertised product and a higher ability to process the advertised product message. The analyses used were identical to those used to test *H1*, except that the analysis was limited to the complex product situation. The means and proportions of these dependent measures for the open-ended and closed-ended conditions are reported in Table 2.

**ATTITUDE TOWARD THE BRAND.** As summarized in Table 3, none of the effects was significant. The cell means are actually in the opposite direction than expected (Table 2). These results do not support *H2*.

**EFFORT.** Table 2 shows the mean of the open-ended ad group to be higher than that of the closed-ended ad group. Two of the four effects were found to be marginally significant, including the over-all main effect of ad message ( $F(1,51) = 1.904, p = 0.09$ ) and the simple main effect of ad message ( $F(1,26) = 1.876, p = 0.09$ ). These findings provide slight support for *H2*.

**PURCHASE INTENTION.** In general, purchase intention is higher for involved subjects with high ability to process who were exposed to the open-ended ads than for the other subjects. The main effects of ad message ( $F(1,51) = 5.310, p = 0.02$ ) and involvement ( $F(1,51) = 1.96, p = 0.08$ ) are qualified by an ad message by involvement interaction ( $F(1,51) = 0.046, p = 0.42$ ). The simple main effect of ad message ( $F(1,26) = 3.68, p = 0.03$ ) was significant with means of 3.2 for the open condition and 2.8 for the closed condition. This provides general support for *H2*.

**CHOICE.** As Table 2 shows, similar percentages of the subjects selected the target brand in each ad conclusion condition. Not surprisingly, none of the four effects is significant. This does not provide support for *H2*.

**SUMMARY.** Although attitude toward the brand and choice were not found to be affected by the ad conclusions, the findings for effort and purchase intention do provide support for *H2*.

### Further Examination of Product Complexity

Although support for *H2* was found for effort and purchase intention, there is still a need to explore the role of ability

**Table 3.** Comparison of Significant Findings for Complex Product Replication

	Brand Attitude		Effort		Purchase Intention		Choice	
	C&A	Cplx	C&A	Cplx	C&A	Cplx	C&A	Cplx
Main effects								
Conclusion	ns	ns	*	ns	**	**	ns	ns
Involvement	ns	ns	ns	ns	*	ns	ns	ns
Interaction								
Conclusion × involvement	ns	ns	ns	*	ns	*	ns	ns
Direct cell comparison	ns	ns	*	ns	**	**	ns	ns

\*\* =  $p < 0.05$ .

\* =  $p < 0.10$ .

ns = not significant.

C&A = complex and high ability.

Cplx = complex condition only.

further. In essence, were the findings attributable solely to the presence of high ability to process the ad message, or were these effects simply a generalization of Sawyer and Howard's (1991) findings to complex products? To verify that product complexity serves as a boundary variable, an analysis of the complex product across both knowledge levels was run. This analysis provides a second replication of Sawyer and Howard's (1991) study, but with a complex product. These findings are reported in Tables 2 and 3.

The results for the complex product group (both knowledge levels) and the complex product/high-knowledge group are similar for nearly all four situations. The most important difference is for the simple main effect of effort, where the whole group was unaffected by the ad conclusion, but the high-knowledge portion of this group did show a moderate effect. For effort, the over complex product group did show a moderately significant effect for ad message by involvement interaction ( $F(1,110) = 2.24, p = 0.07$ ). For purchase intention, both the means and the significance of the effects are nearly identical across both groups. None of the findings for brand attitude and choice are significant.

## Discussion and Implications

The first intention of this study is to replicate Sawyer and Howard's (1991) study, which showed a persuasive effect of advertising conclusions. In general, our findings are in agreement with theirs and provide additional support for their hypothesis. Of methodological interest, comparing across the row labeled "Involvement" in Table 1, it seems that our involvement manipulation may not have been as effective as that of Sawyer and Howard.

Of particular interest to marketing managers are our findings on the impact of advertising conclusion on brand choice. Although Sawyer and Howard (1991) found only marginal significance when the simple comparison between the open-ended treatment is compared directly against the closed-ended treatment, this study finds strong support for the hypothesis that an involved audience responds more to the open-ended treatment. Examining the cell means in Table 2, the open-ended ad conclusion led to more than 60% of the subjects selecting the target brand, while the closed-ended ad conclusion was selected by less than 40%. These results provide evidence that relatively minor changes in advertisements (in this case, two lines at the bottom) can result in a potentially substantial change in a marketing outcome of interest (i.e., choice).

Extending Sawyer and Howard's (1991) study to a complex product situation did show that a boundary condition exists that limits the generalization of the initial study's results to simple products. When the complex condition is studied, the differential effects of advertising conclusion for three of the four dependent measures (brand attitude, effort, and choice) are no longer found.

When examining the complex product in the high-knowledge condition, we hypothesized that boundary condition created by product complexity would be overcome by the increased level of ability to process the ad. For the most part, we failed to find support for this hypothesis. To address the issue of choice, this finding is not surprising. Although an individual in a simple product situation can generally afford to risk trial of a new product based on interest generated through an advertisement, the level of risk increases for the complex, durable item. In addition, although trial of the simple product is made through purchase, trial for the complex product is more likely to take place in a retail showroom or at a friend's home. In essence, the objective of an advertisement for a simple, low-cost product is to invoke a purchase; whereas, the objective of an advertisement for a complex product is to create an additional search for information on that particular product.

The findings that purchase intention was stronger for open-ended ads than closed-ended ads across product situations regardless of ability to process the ad does suggest that Sawyer and Howard's (1991) findings may generalize to some marketing variables of interest, regardless of product type. However, coupling this with inability to generalize based on the brand attitude findings make a solid interpretation of this result problematic. Normally, consumer behavior theory suggests that brand attitudes are linked to purchase intention, which is linked to choice. Further research probing this area will be necessary to understand better the role that advertising conclusions play in purchase intention.

Further research in the role of ability is also suggested by this research. Although the findings for the high-knowledge group generally did not differ from the over-all group, the sample size was small for the high-knowledge group, and exploration using a larger sample may be justified. In addition, our measure of ability was that of subjective product knowledge. Other measures of ability have been suggested in the literature. For example, need for cognition (Cacioppo, Petty, and Kao, 1984) has been suggested as an alternative measure of ability (Petty and Cacioppo, 1986).

## Conclusion

This study replicated the results of Sawyer and Howard (1991) and provided additional evidence that open-ended ad messages can be more persuasive than closed-ended ad messages when the audience is involved. This study also demonstrated a boundary condition based on product complexity. Furthermore, this study showed that ability to process the ad was unable to overcome the boundary condition of product complexity. Clearly, there are many other areas in this stream of research that need to be explored, including a more specific look in types of products as well as measures of ability.

The study began as a seminar project under the guidance of Prakash Nedungadi, and it was funded by the Marketing Department at Indiana University. While we miss Prakash's help and mentoring, we miss his friendship more. We are thankful for the research assistance of Gary Schwebach, Walter Wymer, and Marit Elvsaas in conducting the experiment. We are grateful for the help and suggestions from Richard Olshavsky, John Summers, and the *Journal of Business Research* reviewers.

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