

# HOW ADVERTISING RESPONSE MODELING (ARM) CAN INCREASE AD EFFECTIVENESS



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ARM provides a framework to assess advertising performance by integrating several multiple measures used in copy research today. Two alternative routes to persuasion are delineated: central and peripheral. During central processing, the focus is on the product/brand and message-related variables; during peripheral processing, the creative executional aspects of the advertising are dominant. Through the application of ARM in two case studies, it is shown that results can help evaluate if the advertising that is being tested is processed appropriately in view of the marketing communications objectives set forth for it. By identifying message- and execution-related variables that were important in influencing persuasion, ARM can offer added insight, beyond what traditional copy measures can reveal.

Advertising researchers must provide data regarding the effectiveness of an ad or commercial to advertising professionals for decision making. Especially today, when advertising dollars are highly accountable, it is imperative that the proposed advertising is on the mark, acceptable, and persuasive to the target consumer.

Copy differences can be important since they have been shown to produce significant changes in sales (Haley and Baldinger, 1991). Some past research has shown advertising quality accounts for even more than media weight in influencing sales (Adams and Blair, 1992; Purvis, 1993). However, the task of isolating the impact of advertising on the final sale is a challenge. To that end, researchers have tried to understand how advertising works and to measure mediating variables in the persuasive process in an attempt to evaluate the advertising performance. A variety of measures

in copy testing have been developed for use as valid predictors of sales. Multiple measures such as memory-based impact levels, brand rating, ad liking, and intention to behave, among others, are currently being used in copy research. It is, however, not clear how these variables relate to each other, which can make it especially difficult to interpret the sometimes conflicting results.

Further, advertising research needs to also help identify the appropriate form and content of the advertising. Diagnostics are included in an attempt to gain insight about the dynamics of the advertising. Once again, how these relate to each other or influence the above-mentioned multiple measures is unclear.

The purpose of this paper is to present a new modeling technique for use in copy research that attempts to provide a clearer understanding of the processing of the particular advertising and help identify its areas of

strengths and weaknesses. More specifically, a model is developed that integrates several measures in use today in a meaningful way. Application of the model can help evaluate whether the advertising in question is responded to appropriately in view of the marketing communications objectives set forth for it. Results from this modeling technique provide the advertiser with information for making actionable decisions regarding the structure of the advertising.

## Study Objectives

First, based on past research, a conceptual model is developed. This model integrates several multiple measures found to be of value in copy testing. A theoretical framework for the model is laid out and discussed.

Second, applications of this model are presented in two different case studies. These illustrations show that the model is flexible and broad and can be useful in situations with differing marketing communications objectives: product-oriented and corporate advertising.

## Theoretical Background

Theoretical developments explicating the persuasion process have been reflected in developments in copy research. Earlier learning theories of persuasion (Hovland, Janis, and Kelly, 1953) focused on the influence of the source (e.g., expert, credible, attractive) and message (e.g., one-sided versus two-sided, rational versus emotional) in facilitating learning of the message. Memory tests, specifically recall and recognition, as well as ad playback, were used to measure the extent of learning from the advertising.

Along similar lines, McGuire (1960, 1972) emphasized the se-

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*Results from this modeling technique provide the advertiser with information for making actionable decisions regarding the structure of the advertising.*

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quential nature of learning in the persuasive process which advertising researchers adapted as the Hierarchy of Effects model. Use of this theoretical framework helped develop DAGMAR (Colley, 1961). The *Hear-Understand-Do* model translated to the *Recall-Communication-Persuasion* model (Morgan, 1985), and persuasion measures came to be included in copy tests. Advances in the understanding and measurement of attitudes and the effect of attitudes on intentions to behave (Fishbein and Ajzen, 1975) led to the popular use of brand attitudes and buying intentions as appropriate measures of persuasion. Many current copy-research techniques include these attitudinal measures along with recall/recognition and playback (Lipstein and Neelankavil, 1982). Researchers also have suggested assessing the strength of the linkages among brand beliefs, brand attitudes, and purchase intentions (Chow, Rose, and Clarke, 1992).

Some researchers have emphasized the role of a person's message-relevant thinking (cognitive responses) as the central mediator of attitude change (Greenwald, 1967, 1968; Petty and Cacioppo, 1981, 1986). Advertising readers/viewers are assumed to be active information processors. The degree to which cognitive processing will occur is a function of an individual's motivation and involvement with the ad. Monitoring this processing activity is therefore expected to

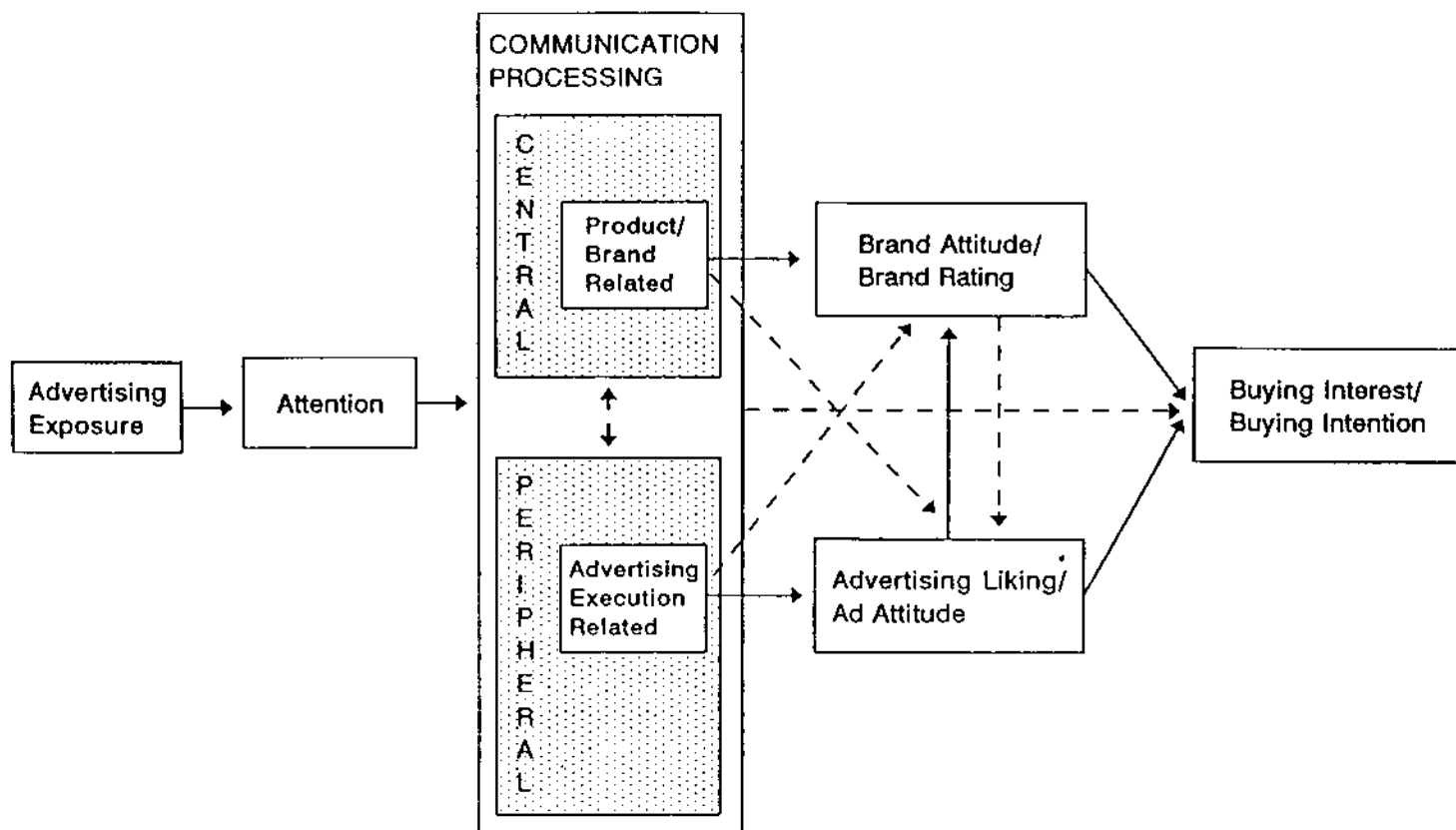
offer insight into the attitude formation/change process. Generation of support arguments (favorable thoughts) during message exposure is expected to create a positive attitude change while counterarguments (unfavorable thoughts) result in resistance to persuasion.

The influence of involvement on the persuasive process has been recognized as important and its study has received wide attention (Batra and Ray, 1985; Johnson and Eagly, 1989; Krugman, 1965; Wright, 1981). Recently, Petty and Cacioppo (1981, 1986) delineated the Elaboration Likelihood Model (ELM), and Chaiken (1980) and later Chaiken, Liberman, and Eagly (1989) the heuristic and systematic information-processing model to show two alternative routes to persuasion, antecedents of which are mainly involvement and motivation. In these models, attitudes are expected to be influenced either by message-related information processing, or by nonmessage, peripheral cues available in the message environment. For advertising, these translate to product/brand-related issues and ad-execution-related issues, respectively. Along similar lines, other researchers have identified attitude-toward-ad as an important mediating variable (Batra and Ray, 1985; MacKenzie, Lutz, and Belch, 1986; Mehta, 1992; Muehling, Stoltman, and Mishra, 1990; Mitchell, 1986).

The importance of ad-related aspects in advertising effectiveness has gained considerable attention recently. The Advertising Research Foundation's Copy Research Validity Project (ARF/CRVP) (Haley and Baldinger, 1991) gave empirical evidence from the real world that advertising likability is a valid measure of ad effectiveness. Based on a sample size of 15,000 with

Figure 1

## Advertising Response Model (ARM): Conceptual Model



tightly controlled experimental conditions, advertising likability was found to systematically predict sales. What likability really measures is a relevant and important research question. There is evidence that liking is related to how meaningful and relevant the advertising was perceived to be by consumers rather than only executional elements (Biel and Bridgwater, 1990). Similarly, Greene (1992) suggested commercial liking may be more strongly influenced by "communication and persuasiveness" than by its "entertainment value." Muehling, Stoltman, and Mishra (1990) also reported the antecedents of ad attitude were cognitive as well as affective. Further research is clearly needed in the area to establish more precisely what this

concept is.

### Advertising Response Model (ARM)

Based on the theoretical frameworks discussed above, Gallup & Robinson, Inc. (G&R) has developed a conceptual model, the Advertising Response Model (ARM), delineating how advertising is processed.

As shown in Figure 1, and in line with past research, an ad must break through the clutter and gain attention. If the advertising has succeeded in doing that, processing occurs along one or both of two routes: central and peripheral (Petty and Cacioppo, 1981, 1986). During central processing, the focus is

on product- and/or brand-related information; during peripheral processing, issues related to the ad or commercial are more dominant.

Involvement levels are expected to influence the processing route: under high involvement, respondents process information via a central route by elaborating on the brand-related information (similar to advertising message involvement [AMI], Baker and Lutz, 1987). Under low-involvement conditions, subjects typically rely on available peripheral cues such as music, spokesperson, etc., (similar to advertising execution involvement [AEI], Baker and Lutz, 1987).

Central processing leads directly to brand attitude which, in turn, influences buying interest

or buying intention. Peripheral cues may influence brand attitudes as well. Attitudes formed or changed as a result of central processing are apt to be more permanent and resistant to change.

Peripheral processing leads to ad attitude or ad liking which, in turn, may influence brand attitude as well as buying interest. Ad attitude may be influenced by message-related issues as well (Biel and Bridgwater, 1990; Greene, 1992). It has been found that when advertising-execution involvement is high and advertising-message involvement is low, peripheral antecedents of ad attitude would be mostly operating (Mackenzie and Lutz, 1989). Under these conditions, ad attitude is dominant in influencing brand attitude and the influence of message-related factors on brand attitude may be minimal (Muehling, Laczniak, and Stoltman, 1991). Attitudes formed or changed as a result of peripheral processing tend to be more temporary in nature and may be lost as the peripheral cues influencing the attitudes cease to be present. It may be necessary to reinforce the relationship between the peripheral cue and the brand by repeated exposure of the same or similar advertising.

Further, it has been suggested that, in cases of familiar, established brands, brand attitude may influence ad attitude (Mackenzie, Lutz, and Belch, 1986). However, Muehling, Stoltman, and Mishra (1990) also found this to be true for new, unfamiliar brands for low-involvement subjects.

The distinction between central- and peripheral-route processing is helpful in evaluating advertising performance. By operationalizing the former as variables related to the product/brand or other message-related

issues, and the latter as those related to the creative executional aspects, it is possible to identify specifically the area(s) of strengths and weaknesses in the advertising. Further, even though simultaneous processing of the two routes occurs most of the time, one of the two routes can be expected to be dominant. Establishing the dominant route should be useful since, as discussed above, the consequences of each processing route in terms of the stability of the resulting attitudes are different.

### Using ARM in Copy Research

Most copy-testing techniques today, as mentioned earlier, use multiple measures in their systems. The ARF/CRVP also concluded that multiple measures were better than any simple measure. It is important that these multiple measures be integrated and consolidated in some way for informed decision making. This becomes even more of a challenge when results are not completely consistent across the measures (e.g., an ad performs well on ad liking but not on brand rating). Under the circumstances, which is more important? What, if anything, needs to be revised in the ad?

Application of the ARM (through structural equations modeling using maximum likelihood estimates with LISREL VII, Joreskog and Sorbom, 1990) can help answer questions like these. It can help identify how the ad was processed and offer insight into the dynamics of an individual ad or commercial. It can help identify if what was intended by the advertising, in pursuit of the marketing communications objectives of the advertising, was actually achieved; for example, evaluate

if the variables that were expected to be important in driving the advertising really influence the dependent measure.

The following case studies illustrate how ARM was used in advertising effectiveness tests. Though the marketing communications objectives are different in the two cases presented here, ARM application proved viable and helpful in each. Case I relates to product advertising with the objectives of improving brand attitude and purchase behavior, while Case II relates to corporate advertising intended to increase overall company image and attitudes. By selecting appropriate variables to be measured (e.g., buying intentions in Case I and overall company rating in Case II as the final dependent variables), it is shown that ARM is flexible and can be adapted for use as needed.

### Case I: Celebrity Advertising

#### Background and Objectives.

A well-known retailer used a new celebrity to endorse a line of clothing in an attempt to influence the image. It was hoped that by association with a young, well-known, attractive actress, consumers would become persuaded. The marketing communications objectives were to influence consumers via use of the celebrity to purchase the product.

**Procedure.** To test the influence of the celebrity endorser on advertising effectiveness, an experimental study was designed. This was part of a larger study (Mehta, 1990). Only results pertinent to the discussion here are presented.

Two commercials, similar in message and execution for the same brand, were prepared. The only difference between the two

was in the model/source endorsing the product. In one version, the proposed celebrity was used, while in the other an unknown professional model was used. The message was identical in the two commercials. It related to good designs, quality fabrics, and affordability. In the celebrity-endorsed commercial, the actress was identified by name; no such mention was germane to the noncelebrity commercial. Half the sample saw the celebrity commercial, while the other half saw the noncelebrity commercial in a group setting of 8 to 10 subjects. A total of 90 female university students, 18 to 25 years of age participated in the study.

**Measures.** In line with the objectives of the research, persuasion and advertising processing measures were taken to study the influence of the celebrity in the commercial. Multiple measures of persuasion were used including commercial attitude, brand attitude, and buying intentions. Ratings for commercial attitude and brand attitude were measured on three 9-point semantic differential scales, averaged to yield an overall score for each variable. Intention to buy was measured on a 4-point rating scale, ranging from "very likely to buy" to "not at all likely to buy."

The advertising communication processing activity was measured through writing down the thoughts and feelings (cognitive responses) elicited during exposure to the commercials. These responses were then categorized as source/model-related (dealing with the personal attributes of the source/model, past connections, and endorsements), ad-execution-related (those dealing with style, idea, audio, production), and brand/product-related (product attributes, benefits, past experiences with the prod-

uct). Mean number of thoughts per category were computed for analysis. Further, for use in modeling, a quantitative value score was computed for each category based on respondents' indication of level of importance (1 to 3, where 3 was very important) and favorability of the response (positive or negative).

To make sure the celebrity and noncelebrity groups were matched, a random assignment check was made. No difference between the celebrity and noncelebrity groups was found for prior brand attitudes and product usage ( $p > .05$ ) in an ANOVA test.

**Results: Overview.** Results showed that although no significant differences were found in the measures of persuasion between the viewers of the celebrity and noncelebrity commercials, there were differences in the cognitive responses generated during commercial exposure for the two groups. While the celebrity commercial viewers focused more on the star in the commercial, in the noncelebrity

condition consumers concentrated more on the product and brand featured. Application of ARM showed that the two commercials, celebrity and noncelebrity, were processed differently by the viewers. Source/model-related thoughts influenced persuasion in the celebrity case but not in the noncelebrity commercial. Further, commercial attitude had no influence on brand attitudes or buying intentions in the noncelebrity group, but it was an important factor in the celebrity group. These findings helped understand the dynamics of the two commercials, and the implications for the effects the advertising is producing became clearer for decision making, as is discussed below.

**Persuasion.** No difference between celebrity and noncelebrity groups was found for the persuasion dependent variables measured after commercial exposure: brand attitudes ( $p < .20$ ), ad (commercial) attitude ( $p < .15$ ), and intention to buy ( $p < .08$ ). Means were generally low for all variables (see Table 1). It

**Table 1**  
**Persuasion and Communication Processing Results for Celebrity and Noncelebrity Commercials**

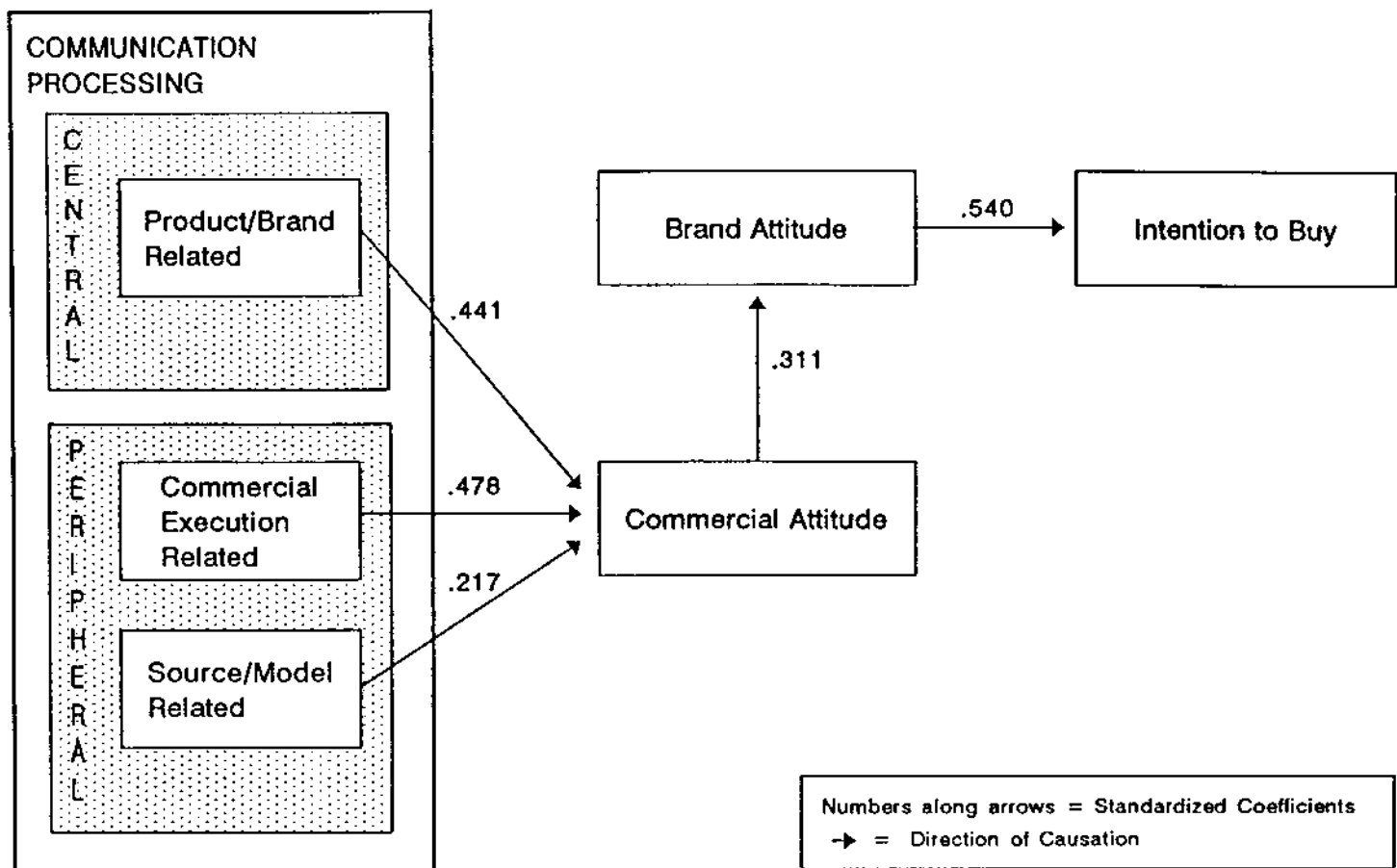
Measures	Mean ratings		t-test Significance level
	Celebrity	Noncelebrity	
<i>Persuasion measures</i>			
Brand attitude*	3.56	4.04	.20
Commercial attitude*	4.13	3.54	.15
Buying intention**	1.38	1.20	.08
<i>Communication processing</i>			
	Number of cognitive responses		
Source/model related	3.11	1.16	.001
Ad-execution related	0.53	1.42	.01
Product/brand related	2.40	3.48	.001
(Base)	(45)	(45)	

\* 9-point scale where 9 = High

\*\* 4-point scale where 4 = High

Figure 2

## Advertising Response Model (ARM): Celebrity Commercial for Clothing — Retail



could, from these results alone, be concluded that there were no differences in the performance of these two commercials.

**Communication Processing.** There were, however, differences in the two groups for the number and type of cognitive responses generated within each category. Although all consumers reacted with thoughts about the model in the commercial, the product and brand featured, as well as the commercial execution, the celebrity commercial viewers had more thoughts regarding the (celebrity) source while in the noncelebrity group other thoughts were more frequent. As shown in Table 1, simultaneous processing of both

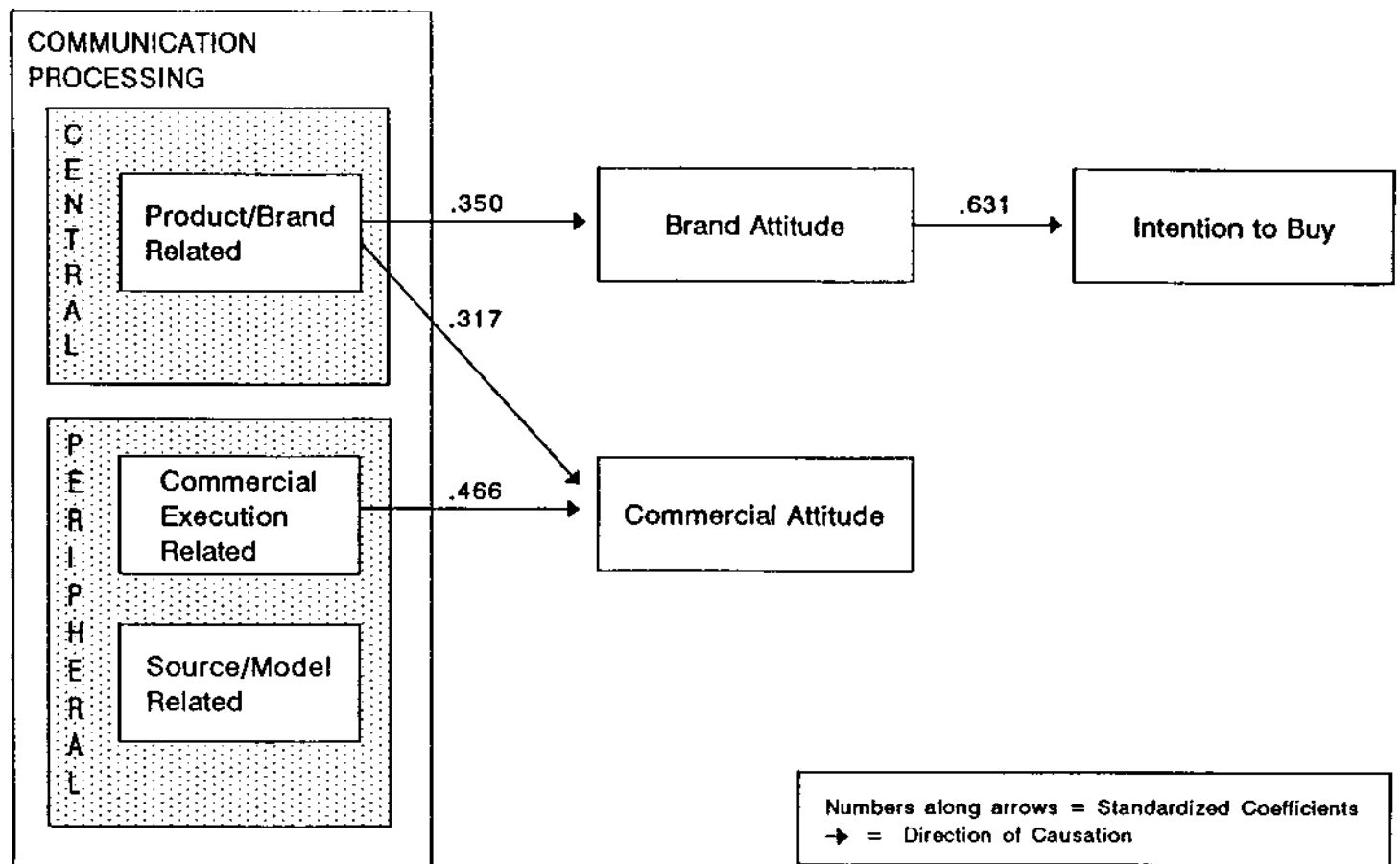
kinds, product-related and non-product-related, occurred for all viewers, celebrity commercial viewers generated significantly more source/model-related thoughts than noncelebrity viewers ( $p < .001$ ), who generated significantly more product-related ( $p < .001$ ) and ad-execution-related ( $p < .01$ ) thoughts. It is important to identify the relationship that these thoughts have with the measures of persuasion. ARM was used for the purpose.

**ARM Results.** Application of ARM did, indeed, yield some insights. As stated earlier, the results of the modeling procedure revealed differences in the way the different types of

thoughts influenced the persuasion measures in the two commercials, celebrity and non-celebrity. As is clear from a comparison of Figures 2 and 3, source-related thoughts significantly influenced commercial attitude which, in turn, influenced brand attitudes only in the celebrity ad condition. Product/brand-related thoughts influenced brand attitudes directly in the noncelebrity condition but only indirectly through its influence on commercial liking in the celebrity commercial. Peripheral cues (ad-related and source/model-related thoughts) had no direct or indirect influence on intention to buy in the noncelebrity condition. Chi-square results

Figure 3

## Advertising Response Model (ARM): Noncelebrity Commercial for Clothing — Retail



show the data fit better for the celebrity commercial ( $p < .69$ ) as compared to the noncelebrity commercial ( $p < .01$ ), suggesting other variables need to be included in the latter model.

**Implications.** It is clear from the results of ARM that even though no significant differences were found for the persuasion measures between the celebrity and noncelebrity commercials, the processing activity was different for the two, which needs to be taken into account when making decisions regarding the advertising. The finding that peripheral processing is dominant in the celebrity condition has two important implications for fulfilling the marketing objec-

tives set for the commercial: (1) It is important that the celebrities themselves, and their use in the commercial, generate *positive* thoughts since they would be mainly responsible in influencing persuasion; and (2) since product-related thoughts are few and do not seem to be influencing persuasion (overall brand attitude and buying intentions) directly in the celebrity condition, there needs to be some way that the importance of the product is brought back into focus. One way to do so may be to involve the celebrity with the product in the commercial even more than was the case so that thoughts about the celebrity would evoke some more prod-

uct-related thinking as well.

## Case II: Corporate Advertising

### Background and Objectives.

A large, well-established office electronics and equipment manufacturer was interested in evaluating the performance of two corporate commercials. Each commercial had similar marketing objectives: to increase overall company rating by influencing the company image, particularly as a company that is concerned with the social and economic issues of the country.

One of the commercials, "Education," was related to enhancing the company image through

showing its concern and contribution to education for children. The other commercial, "Economy," was related to enhancing the company image by showing its leadership in the area of industrial manufacturing in a global marketplace and its contributions to the national economy. General execution styles in terms of pace, tone, and music were similar for the two commercials.

**Procedure.** The two commercials of interest were tested among a general audience of 389 men and women from 10 metropolitan areas across the country in the fall of 1991. Data was collected through Gallup & Robinson's InTeleTest system which uses the videocassette to carry the advertising. Commercials were embedded within a new unaired program and subjects recruited to receive and watch the tape at home. Day-after measures were taken for recall and persuasion. Diagnostics and specific commercial reactions were collected after re-exposure to the test commercial. Respondents saw only one of the two commercials.

**Measures.** In line with the objectives of the commercials, persuasion and communication processing measures were used. Persuasion was measured by overall company rating, company image, and commercial liking. Based on the ARF/CRVP, a 6-point rating scale was used for overall company rating (brand rating) and 5-point rating scales for commercial liking, company image, and commercial content.

Advertising communication processing activity and reactions to the commercial were measured by closed-end items rather than thought-listings. Positive and negative diagnostic statements (4-point agree-disagree scale, ARF/CRVP) as well as an adjective checklist (yes/no) was used for the purpose.

**Table 2**  
**Persuasion Results for Corporate Commercials**

Persuasion measures	Mean ratings		t-test Significance level
	"Education"	"Economy"	
Company image*	4.3	3.8	.001
Commercial attitude*	4.3	3.7	.001
Overall company rating**	5.2	4.7	.001
(Base)	(183)	(162)	

\* 5-point scale where 5 = High

\*\* 6-point scale where 6 = High

A factor analysis was performed for measures related to company image, commercial content, and adjectives to reduce the many variables to a set of fewer meaningful variables for further analysis (see Appendix).

**Results: Overview.** Although the two tested commercials were very similar in style and execution and were intended to accomplish the same marketing objectives, one performed consistently better than the other across all the persuasion measures including overall company rating, company image, and commercial liking. In terms of decision making, it was clear that one was the stronger commercial; however, it was not clear why the performances of the commercials were so different.

ARM application revealed that the processing activities for the two commercials were different. It showed that for the commercial with lower performance, company image had no influence on overall company rating showing the marketing objective set for it was not fulfilled. Further, the commercial content had a negative influence on overall company rating, indicating that the commercial was not found to be believable, convincing, or effective. While in the commercial that performed better, commercial message and executional fac-

tors positively influenced both company image and commercial liking, which in turn influenced overall company rating. The marketing objectives were thus better fulfilled by this commercial. The results are presented and further discussed below.

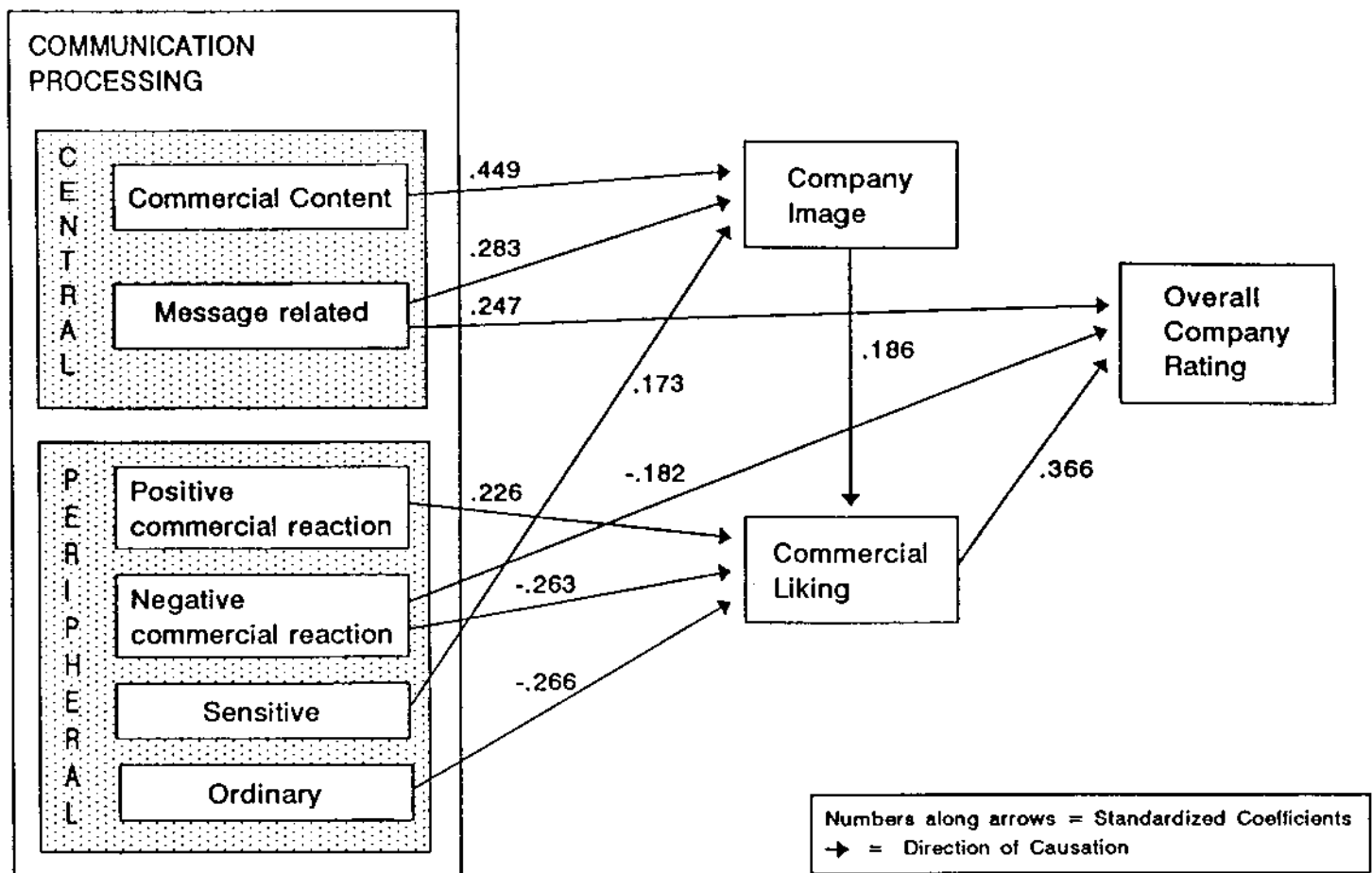
**Persuasion.** There were significant differences in the means for overall company rating, company image, and commercial liking between the two commercials with "Education" consistently showing higher levels ( $p < .001$  for all, see Table 2). Further, "Education" tested at or above norm in most of the traditional measures (recall, overall company rating, and commercial liking), while "Economy's" performance was at or below norm on most of these variables. Given the similarity in the execution and style of the commercials, the results are interesting.

Performances on the diagnostic measures were mixed and did offer a clear understanding of the persuasion results. "Education" received significantly higher ratings for some but not all variables: it did better than "Economy" on variables related to the message and was perceived as more sensitive and less ordinary, but ratings for "Economy" were significantly higher for entertaining, and the two commercials were perceived to be equally imaginative and infor-



Figure 4

## Advertising Response Model (ARM): Corporate Commercial — "Education"



mative. Ratings for the negative commercial perceptions were also similar for the two commercials. Why, then, was "Economy's" performance lower on all of the major evaluative measures including company image, commercial liking, and overall company rating?

**ARM Results.** ARM application gave insight into the processing of the two commercials and helped understand the results better. As mentioned earlier and discussed below, the processing activity for "Education" showed that the content and execution positively influenced the persuasive measures, while for "Economy," the commercial content was not accepted

by the viewers. Chi-squares for each of the models are nonsignificant, suggesting no difference between the two in fit of data to the models.

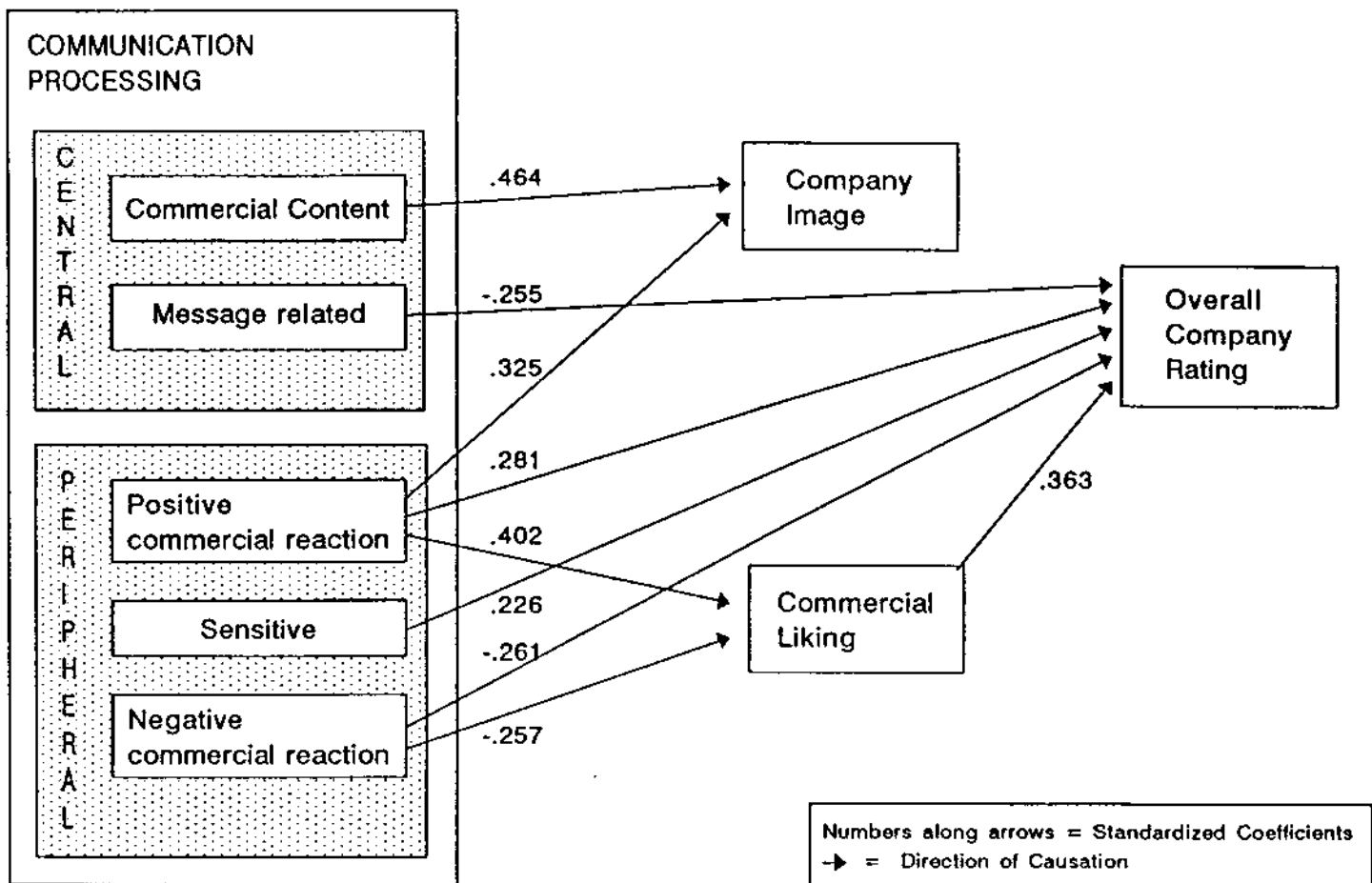
As shown in Figure 4, in "Education" the processing activity revealed that both central and peripheral routes were active: central issues (message-related and commercial-content variables) influenced company image, as expected. Company image influenced commercial liking, which in turn strongly influenced overall company rating. Given the commercial's executional style, this is not surprising. Commercial liking was affected by other peripheral factors, as anticipated. Message-

related variables also directly had an effect on overall company rating.

In "Economy" (see Figure 5), however, only the peripheral route was active in a meaningful way. Central-route processing showed problems: commercial content led to the company-image variable, but company image had no influence on commercial liking or overall company rating, contrary to expectations. In addition, message-related issues influenced overall company image, but in a *negative* relationship, suggesting that the overall company rating was inversely influenced by believability and effectiveness of the commercial. This suggests that the message in the

Figure 5

## Advertising Response Model (ARM): Corporate Commercial — "Economy"



commercial which related to the company contributing effectively to the economy was not convincing or accepted and was ineffective in helping enhance the company rating.

Peripheral-processing routes, however, were operating appropriately and commercial liking influenced overall company rating. Since ratings for commercial liking were not high, ratings for overall company image were also low. Further, although "Economy" received high ratings on measures such as imaginative and entertaining, these variables were not important in driving either the mediating variables or the final dependent measure at all.

**Implications.** The two commercials, "Education" and "Economy," although similar in executional style, were different in content. The former performed well while the latter received low ratings for all the major variables. The modeling results suggest that the problem with "Economy" is in relation to the information and message content rather than in execution. Given the economic conditions of the country at the time of testing, the message related to a company benefiting the economy was just not effective. Although "Economy" was seen to be an imaginative and informative commercial, it was not convincing and effective.

## Extensions in ARM Applications

ARM application in copy research offers many advantages. It can be used in a variety of situations. Both case studies presented here are in relation to comparing the performance of a pair of commercials. It is, however, equally valuable to use ARM when a single ad or commercial is evaluated. In view of the marketing objectives for the particular ad or commercial, the various message- and execution-related factors that are expected to significantly influence the dependent variables can be tested and problems with the processing of the advertising, if any,

*By showing how the commercial was processed, ARM can identify message- and execution-related variables that were important in influencing and persuading the consumer.*

can be uncovered.

Further, ARM offers flexibility in design and measures. It may be used in an in-market, within-context evaluative test or in a pre-test diagnostic setting with forced-exposure to provide strong and valuable feedback to the strategic and creative process. Thought-listing measures may be used to measure communication processing as in Case I, or alternatively, if study designs make that difficult, closed-ended diagnostic measures may be used successfully as in Case II. Finally, the final dependent variables may be selected as appropriate to the product/service category. For example, intention to visit the dealer rather than buying intentions may be more useful when studying advertising for autos and expensive equipment.

## Limitations

Involvement levels are expected to influence the processing of any advertising. Under low-involvement conditions, peripheral routes are expected to be more active. Caution is needed in interpreting ARM results in this context. Were the differences in processing due to the creative execution or the consumer involvement levels? Also, can consumers always verbalize their likes and dislikes? This may be especially true in highly emotional advertising.

Although closed-ended surrogates may force consumers to give some reactions, untapped feelings may exist that influence the processing of the advertising.

## Conclusion

Advertising Response Modeling (ARM) applications can enhance the results from traditional copy-research techniques, as the above illustrations have shown. It provides help in evaluating whether the advertising processing is appropriate for the marketing communications objectives set for it. By showing how the commercial was processed, ARM can identify message- and execution-related variables that were important in influencing and persuading the consumer. It is able to uncover unexpected relationships among multiple measures used in copy research today to offer guidance for improved advertising in situations with differing marketing communications objectives. In product-oriented situations where measures for a pair of ads for the same brand showed no differences as well as for corporate advertising, when two similar commercials showed significant differences, ARM was able to provide value in terms of explaining the dynamics of the advertising that could guide decisions. It can therefore clearly offer added insight, beyond what the traditional measures can reveal. ■

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## Appendix

### Factor Analysis Results for Corporate Commercials

#### Commercial Content

- Commercial addresses issues

#### Message Related

- Believable
- Effective
- Informative
- True to life
- Worth remembering

#### Positive Commercial Reaction

- One of best commercials
- Commercial tells a lot
- Learned something new

#### Sensitive

- Sensitive

#### Entertaining

- Fast moving
- Lively

#### Imaginative

- Imaginative
- Amusing

#### Negative Commercial Reaction

- Commercial in poor taste
- Insults intelligence

#### Ordinary

- Too ordinary
- Seen too much

#### Dull

- Dull
- Irritating

#### Silly

- Silly
- Phony

#### Company Image

- Enhances image of company
- Company contributes to society

#### Commercial Liking

#### Overall Company Rating

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