Source Expertise, Time of Source Identification, and Involvement in Persuasion: An Elaborative Processing Perspective

Pamela M. Homer
Lynn R. Kahle

The interactive role of source expertise, time of source identification, and involvement was examined in an experiment on advertising effectiveness. In general, findings support an elaborative processing explanation. A three-way interaction among the manipulated variables emerged in the study, which utilized print advertisement stimuli. The findings also suggest that the source expertise information was processed more as a central persuasion cue than as peripheral information. Managerial implications are offered.

Pamela M. Homer (Ph.D., University of Oregon) is assistant professor of advertising, University of Texas at Austin.

Lynn R. Kahle (Ph.D., University of Nebraska-Lincoln) is associate professor of marketing, University of Oregon.

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Advertisers frequently incorporate product endorsers in their communications aimed at influencing consumer perceptions and purchase intentions. The perceived credibility of these endorsers often varies among individuals in the targeted audience. Empirical evidence suggests that a communication's persuasive power is in part dependent upon characteristics of the source of the message (e.g., Hass 1981; Sternthal, Phillips, and Dholakia 1978). Perhaps the most researched source characteristic is credibility, the dimensions of which include expertise, objectivity, and trustworthiness (Kelman and Hovland 1953; McGuire 1969). Expertise appears to be the dominant dimension, but empirical conclusions regarding its impact are conflicting. Both high- and low-expertise sources have been shown to affect attitude change positively (Delozier 1976; Fireworker and Friedman 1977; Hovland and Weiss 1951; Kelman and Hovland 1953; McGuire 1969), and some studies have shown no systematic relationship between expertise and persuasion (Johnson and Steiner 1968; Johnson and Scileppi 1969; McGarry and Hendrick 1974).

The timing of the identification of the source's expertise (i.e., before or after presentation of message arguments) is a potentially influential factor on both the processing of the message and the communication's ultimate persuasiveness (Greenberg and Miller 1966; Mills and Harvey 1972; Ward and McGinnies 1974). However, this effect may not manifest itself in the same way under varying levels of involvement. Involvement is associated with increased amounts of processing elaboration, because this increased processing effort will result in additional (and stronger) associative knowledge networks in memory (see e.g., Srull 1981). The number and strength of associations among message components, and between them and other related knowledge, distinguishes elaborative and non-elaborative encoding (Mazursky and Schul 1988). When presented with an expert source at the beginning of a message, enhanced levels of involvement should serve to stimulate deeper elaboration of a communication message, whereas the persuasiveness of less expert sources will be adversely affected. Under less involving circumstances, less expert sources may go unnoticed or may motivate individuals to generate support arguments in an effort to insure that their position is adequately represented (Sternthal, Dholakia, and Leavitt 1978), thus allowing acceptable levels of message influence. If expert sources are to be influential when elaborative effort is relatively low, they should be identified at the end of a message.

Alternatively, the source's expertise may have varying impact depending upon whether the information serves as a peripheral cue or as central information (as expressed by the ELM, see e.g., Petty and Cacioppo 1986). Low levels of elaborative motivation and/or ability are apt to result in peripheral processing of the expertise cue, whereas increased amounts of elaboration may, in certain circumstances, lead to central processing of the source-expertise information. At other times, deep elaboration of message-relevant cues may eliminate the need to rely on source-related cues. Learning that results from processing peripheral cues also tends to be less persistent than centrally processed information (Krugman 1977; Petty and Cacioppo 1986).

In summary, the present study seeks to enhance our knowledge of how source expertise, timing of source identification, and involvement interact, thereby suggesting increased understanding of the relationships among these constructs. The objective of a final set of analyses is to determine whether the source-expertise information served as a peripheral or central persuasion cue.

Background

Source Expertise. Most of the research on source credibility has focused on the expertise and trustworthiness of the communicator (Hass 1981). Expertise refers to the extent to which the source of a communication is perceived to be capable of making correct assertions by virtue of having relevant skills, whereas trustworthiness refers to the degree to which an audience perceives that the communicator considers the assertions to be valid (Hovland, Janis, and Kelley 1953). The findings that sources high in expertise and/or trustworthiness are more persuasive than low-expertise sources (see Hass 1981; McGuire 1969; Sternthal, Phillips, and Dholakia 1978 for reviews) are convincing enough that most research on source credibility focuses on determining the limits of the phenomenon and identifying factors that interact with it.

Studies that have focused on the interactions of source credibility with other variables have not always supported the superiority of more credible sources, however. For example, Sternthal, Dholakia, and Leavitt (1978) reported that a moderately credible source was more persuasive than a highly credible communicator when subjects had an initially favorable disposition and the communicator was identified at the start of the message. The authors suggest that the less credible source motivated recipients to produce more support arguments in an effort to insure that their position was fairly represented, whereas subjects felt highly credible sources did not need this bolstering. A highly credible source has been found to induce greater persuasion when recipients adamantly oppose the communicator's position, but less credible sources are more influential when individuals have a favorable predisposition (Dean, Austin, and Watts 1971). Similarly, it has been demonstrated that less credible (Bock and Saine 1975) and moderately credible (Bochner and Insko 1966) sources are more persuasive than highly credible sources when message recipients favor the advocated position. Other conditions shown as interacting with source credibility include issue involvement (Johnson and Izzet 1972; Johnson and Scileppi 1969; Petty, Cacioppo, and Goldman 1981; Rhine and Severance 1970); message congruence with the source's self-interest (Eagly and Chaiken 1975; Walster, Aronson, and Abrahams 1966); and source-recipient discrepancy (Aronson, Turner, and Carlsmith 1963). Effects of source credibility and other influential factors are reviewed by Sternthal, Phillips, and Dholakia (1978).

Researchers have supported the idea that a highly credible source is more persuasive than a low credibility source when issue involvement is low (Johnson and Schileppi 1969; Petty et al. 1981; Rhine and Severance 1970). In contrast, one study found that when involvement was low, a low credibility source did induce more positive attitudes and under high involvement the more credible source was more persuasive (Dean et al. 1971). But these results may have been affected by confounding the manipulation with initial opinions (Sternthal, Phillips, and Dholakia 1978). That is, those people in the high-involvement condition may have been more negatively predisposed towards the issue than those in the less-involving condition.

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Petty and Cacioppo (1985, 1986) and Heesacker and Petty (1983) have recently clarified the interactive role of source factors and involvement in their elaboration likelihood model (ELM). They suggest that positive sources appear to be as effective as simple acceptance/rejection cues when motivation and/or ability to process a message are low, but that such sources are relatively unimportant when both motivation and ability to process the information are high. In these instances, central cues that are typically associated with the processing of message-relevant information have a dominant influence. Furthermore, when elaboration likelihood is moderate, people rely on source characteristics to determine the amount of thinking devoted toward the message. It has yet to be determined if certain types of source characteristics may serve as central cues under particular conditions.

When researchers have focused on behavioral change rather than change in attitudes, less credible sources have sometimes proven to be more effective

than sources higher in credibility (Dholakia and Sternthal 1977; Hill, Smith, and Mann 1986; Powell 1965; Tybout 1978). A self-perception theory argument was offered to explain why a less credible source (measured in terms of expertise and trustworthiness) facilitated greater behavioral persistence than a more credible source (Dholakia 1986). This prediction was based on the rationale that if one's own behavior is available as a cue, behavioral compliance will still occur when a communication is from a less credible source because the behavior will be attributed to internal causes. If, however, the behavioral compliance is attributed to an external cause such as a highly credible source, then persons will tend to be less favorable about the issue, less certain about attitudinal inferences, and subsequent behavior will be more uncertain.

Timing of the Source's Identification. Communication sources high in credibility have been found to be more effective if identified before the message (Greenberg and Tannenbaum 1961). In contrast, low-credibility sources have been found to be more persuasive when identified after the message (Greenberg and Miller 1966; Husek 1965), and no identification of low-credibility sources has been found to be more effective than prior identification (Husek 1965).

The interaction of timing of identification and credibility has also been examined. Ward and McGinnies (1974) found a highly credible source more influential than a low-credibility source when identified prior to the message, and no source effect was found when the source identification followed the message. Delayed identification also increased the persuasiveness of a low-credibility source in the absence of a timing of identification and credibility interaction.

A cognitive-response explanation was offered as the rationale for the significant interaction reported by Sternthal, Dholakia, and Leavitt (1978). Specifically, a moderately credible source induced greater persuasion and support argumentation than a highly credible source when identified before the message, but when the message preceded identification of the source, credibility had no systematic effect on attitudes or cognitive responses. Presumably, prior identification caused the audience to feel a need to bolster its favored position when the communication source was of questionable credibility. However, when the source was identified after the message, the information was too late to mediate thought generation.

When researchers have focused on behavioral change rather than change in attitudes, less-credible sources have sometimes proven to be more effective than sources higher in credibility.

The effects of the timing of source identification and expertise in advertising are not conclusively established, due (at least in part) to limitations in many of the past research endeavors. These include (1) poor manipulations, (2) confounding within the credibility factor (i.e., it is often impossible to determine which dimension[s] of source credibility was manipulated), and (3) the existence of plausible interacting factors. Furthermore, a majority of the previous empirical research studies has been apart from the advertising context. Reactions to a speech by a credible versus noncredible speaker may differ from consumer processing of information in endorser-type advertisements. These variables may also exert influence differently under varying levels of (message) involvement, which has been shown to interact with source credibility (Petty, Cacioppo, and Schumann 1983).

Involvement. Involvement may be one of the most researched concepts in the advertising and marketing disciplines, but it continues to be plagued by a lack of definitional and measurement consensus (e.g., Batra and Ray 1983). The confusion often stems from the all-too-frequent practice of applying the term "involvement" to a broad range of very different phenomena (e.g., media involvement, product class involvement, decision involvement, message response involvement).

The existing literature on these various forms of involvement and their effects on the processing of advertising information has been skillfully reviewed elsewhere and will not be repeated here (See, e.g., Batra and Ray 1983; Leigh 1984; Leigh and Menon 1987; Zaichkowsky 1985, 1986). In the present study, attention focused on message response involvement, i.e., a situational state that is specific to the processing of a particular message and therefore not an enduring predisposition (Batra and Ray 1983). This conceptualization is consistent with the positions offered by Gardner (1985), Gardner, Mitchell, and Russo (1985), Muehling and Laczniak (1988), and Petty et al. (1983). Enhanced involvement with an advertising message will motivate increased elaboration of the ad's content, especially the attribute-related information. This approach to involvement is comparable to the notion of brand- versus nonbrand-processing strategies (Gardner 1985; Gardner et al. 1985; Mitchell, Russo, and Gardner 1981) and to the ELM's central versus peripheral routes to persuasion (Petty and Cacioppo 1986; Petty et al. 1983).

The present study sought to provide insight into (1) the differences in the processing of information conveyed in advertisements employing product endorsers of varying expertise, (2) the interactive roles of involvement and timing of the source-expertise cues with source expertise, and (3) the nature of the processing of source expertise cues (i.e., central versus peripheral).

Hypotheses and Theoretical Justification

When individuals are involved with the message, they will be more apt to devote elaborative effort toward processing all types of informational cues presented in the ad (i.e., central and peripheral). If the source is perceived to be an expert prior to reading the ad message, the information is more likely to be evaluated favorably (all other things being equal). When the source is identified after exposure to brand-related information, the perceived credibility (as measured by expertise) will have little impact, because elaborative effort will be focused on the previously encountered, more "central" message-argument information as compared to the more "peripheral" source-credibility information. Even if the source-expertise information is treated as a central cue, the overall evaluation will be based on the disproportionate amount of brand-related message arguments, as opposed to the single expertise cue. It is also likely that brand perceptions may be sufficiently established by the time the less favorable credibility information is encountered. As expressed by Sternthal, Dholakia, and Leavitt (1978), if the information is presented at the end of the message, it may be too late to mediate thought generation. Any negative reaction to a source with a low level of perceived expertise will be discounted or overpowered by the positive message evaluation.

When the level of involvement is low, motivation to allocate elaborative effort to message information is reduced and less apt to be strongly linked to a knowledge structure in memory. As a result, this information is less accessible and available for future processing tasks, i.e., the source's expertise is less apt to be remembered. If an expert has any impact at all, it will be at the end of the message, because it will be the final bit of information encountered. For prior identification, the more recently encountered attribute-related message content will interfere with remembrance of source identities provided at the beginning of the ad. Thus, we expect that:

H_1: Source expertise, involvement, and timing of the source's identification will interact.

More specifically, the following patterns are expected:

H_{1a}: Under high involvement, the source's expertise is more influential when identified at the beginning of the message, i.e., an expert source is more influential than a less expert source.

H_{1b}: Under low involvement, a source's expertise is more influential when the source is identified at the end of the message, i.e., an expert source is more influential than a less expert source.

The Elaboration Likelihood Model (see Petty and Cacioppo 1986) distinguishes between central and peripheral persuasion cues. Typically, source-related information has been associated with the peripheral route to persuasion (Petty et al. 1983), but more recent theoretical clarifications (Kahle and Homer 1985; Petty and Cacioppo 1986) concede that any piece of information may be treated as a central or peripheral cue, depending on the nature of other elements in the persuasion environment. To date, there is no published evidence about the peripheral versus central role of source expertise. In a final set of analyses, we examine whether the expertise information was treated as a peripheral or central cue.

Method

Pilot Study. The purpose of the pilot study was to identify appropriate products for the experimental appeals. Forty-two undergraduates rated 17 consumer products in terms of frequency of purchase, degree of familiarity, and gender orientation on 9-point scales. Based on examination of the mean scores for all ratings, skin-care products were selected as appropriate products by a panel of three judges (academic colleagues). The findings were judged to optimize the goal that the product chosen for the experimental ad did not receive extreme ratings in any of the three categories. This procedure reduced confounding due to prior knowledge or to the selection of a product that typically only applies to one sex.

Subjects. A total of 234 male and female undergraduates volunteered to participate in the study. Subjects were randomly assigned to one of the levels of each experimental manipulation (i.e., source expertise, involvement, and time of source identification) in a $2 \times 2 \times 2$ factorial design.

Procedure. The experiment was administered in small groups (6-20 per session) with subjects isolated by partitioned walls to prevent awareness of others' behaviors. Subjects read one booklet containing the experimental ad, and completed a second booklet containing the dependent measures. The first booklet claimed the purpose of the experiment was to evaluate magazine advertisements. This page also included the first part of the involvement manipulation (described below). The booklet contained six professionally-produced color advertisements, one of which was the ad of interest, i.e., an ad for a hypothetical line of skin-care products. The experimental ad was the third ad in the booklet, thus reducing primacy and recency learning effects.

The layout for the skin-care ad was of an illustration-headline-body copy format with a pictorial insert of the product in the bottom righthand corner. The ad copy discussed how important it is for females and males of all ages to take care of their skin because of the harmful effects from exposure to weather elements. The benefits of the skin-care products ("Essentials") were stated (e.g., skin protection) along with a description of the items available in the product line. The product line was promoted by an identified, but unfamiliar endorser. Except for the expertise of the endorser, the copy was identical in all versions of the

ad, as was the headline ("Share the experience").

After viewing the ad booklet, respondents completed the second booklet containing the dependent measures. Subjects were completely debriefed and thanked for their cooperation at the conclusion of the experiment. All experimental treatments were administered at each session (with approximately equal numbers of subjects in each) to avoid confounding the effects of the independent variables. The administrator was blind to the hypotheses and the individual treatment assignments.

Independent Variables. The source-expertise manipulation was embedded in the experimental ad. Specifically, the product endorser was identified as either a dermatologist and skin-care consultant (expert) or an executive accountant (nonexpert).

Involvement was manipulated in two places within the booklet of ads (external to the skin-care ad). On the first page of the ad booklet, subjects were told the forthcoming ads were designed for new products presently available in select local markets (high involvement) or in foreign markets (low involvement). Those in the high-involvement condition were also informed they would be asked to make a purchase decision for the advertised product. Secondly, on the page immediately preceding the skin-care ad, the new product line was either introduced as a locally test-marketed product or as a product designed for European markets. Past researchers have found this manipulation to be effective (Kahle and Homer 1985; Petty et al. 1983). These manipulations were designed to enhance or reduce the personal relevance of the message, which in turn should produce the desired increase or decrease in elaborative processing of the ad's content.

Timing of the source's identification was positioned at the start or the end of the copy to complete the final manipulation. Except for the source's expertise identification and the position of that information, all versions of the skin-care ad were identical.

Dependent Variables. The second booklet was completed by each respondent after exposure to the ad booklet. First, participants were instructed to write down the thoughts that went through their minds while viewing the ads. These cognitive responses were coded as positive ad execution thoughts (PAD), negative ad execution thoughts (NAD), positive attribute-based thoughts (PAB) or as negative attribute-based thoughts (NAB). Two judges independently coded the responses (98 percent agreement). Any discrepancies were resolved by discussion.

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Each subject was then asked to recall the attributes mentioned in the skin-care ad. Nine-point scalar items designed to assess brand beliefs (agreement with statements regarding the product's quality ingredients and youth-prolonging ability); attitude towards the ad (interesting/uninteresting and attention-getting/not attention-getting); brand attitudes (good/bad, desirable/undesirable, and satisfactory/unsatisfactory); and behavorial intent (will/will not buy and will/will not try); and manipulation check items followed the recall task. "Bogus" questions (i.e., identical to the evaluative measures described previously except that they referred to the filler ads) were intermixed with the measures of interest to reduce demand characteristics. At the end of the questionnaire, open- and closed-ended questions were included to determine if any respondents knew the purpose of the experiment. Anyone judged as aware of the experimental manipulations and/or hypotheses by two of three independent judges was discarded from further analyses (in total, five subjects were eliminated).

Results and Discussion

Manipulation Checks. Consistent with previous research (i.e., Leigh and Menon 1987; Rothschild 1984), the level of attention, interest, and involvement with the ad were measured on 9-point scales. The index formed by summing these three measures (alpha = .84) substantiated that the involvement manipulation was unidimensional and successful ($F[1,199] = 28.27$, $p < .001$). As desired, subjects in the high-involvement treatments reported being more involved with the message than those in the low-involvement treatments. Following the recommendations of Batra and Ray (1983) and Muehling and Laczniak (1988), the cognitive responses were also analyzed to verify the effectiveness of the message-response-involvement manipulation. As expected, those in the high-involvement condition elicited more attribute-based thoughts ($F[1,221] = 8.26$, $p < .005$) and more attribute-based thoughts as a percentage of total thoughts ($F[1,221] = 5.25$, $p = .02$), thereby indicating enhanced elaboration of the message content. Evidence of elaboration is also indicated by greater brand-attribute material in memory retrieval (Gardner 1985). Accordingly, attribute recall was higher in the high-involvement treatments relative to the low-involvement groups ($F[1,221] = 12.67$, $p < .001$).

A similarly effective manipulation was indicated by the source-expertise manipulation check ($F[1,199] = 18.30$, $p < .001$), with the highly expert source rated as more knowledgeable/expert/competent than the less expert source (alpha = .94). Lack of a confound with source likability (McGinnies and Ward

1980) was also confirmed (F[1,203] = 0.51, ns).

Dependent Measures. *Overall MANOVA.* The scales developed for attitude toward the ad (A_{ad}), brand attitudes, and behavioral intentions were incorporated in a MANOVA with the three independent variables (i.e., expertise, involvement, and timing of source identification). This analysis identified a significant three-way interaction among the independent variables (Wilkes' lambda = .965, F[3,218] = 2.62, p = .05), an involvement main effect (Wilks' lambda = .903, F [3,218] = 7.77, $p < .001$), and a marginal source-expertise main effect (Wilks' lambda = .962, F[3,218] = 2.50, p = .06). No other effects reached statistical significance.

Hypotheses H_1, H_{1a} and H_{1b}. The univariate ANOVAs and planned comparisons (Duncan Multiple Range Test) among individual cell means were examined to assess the proposed hypotheses. The individual treatment means are summarized in Figure 1 and Table 1.

The first hypothesis was supported across the majority of the dependent measures, with a significant source expertise × involvement × timing of source identification interaction for A_{ad}, brand attitudes, and behavioral intentions. The composite of the A_{ad} items (alpha = .82) did support H_{1a} and H_{1b} ($F[1,220] = 6.22$, $p = .01$). Planned comparisons ($p < .05$) demonstrated that under low involvement, expertise does influence affect when presented at the end of the ad, but when presented at the beginning, the influence is nonexistent (H_{1b}). Under high involvement, expertise aided persuasion in the case of pre-identification of the source, but not in post-identification, as hypothesized (H_{1a}). The involvement main effect also reached statistical significance ($F[1,220] = 23.23$, $p < .001$), along with a significant source-expertise main effect ($F[1,220] = 4.50$, $p = .04$).

Analyses of brand attitude judgments (alpha = .86) also identified a significant interaction among source

FIGURE 1
Plots for the Interaction Among the Independent Variables

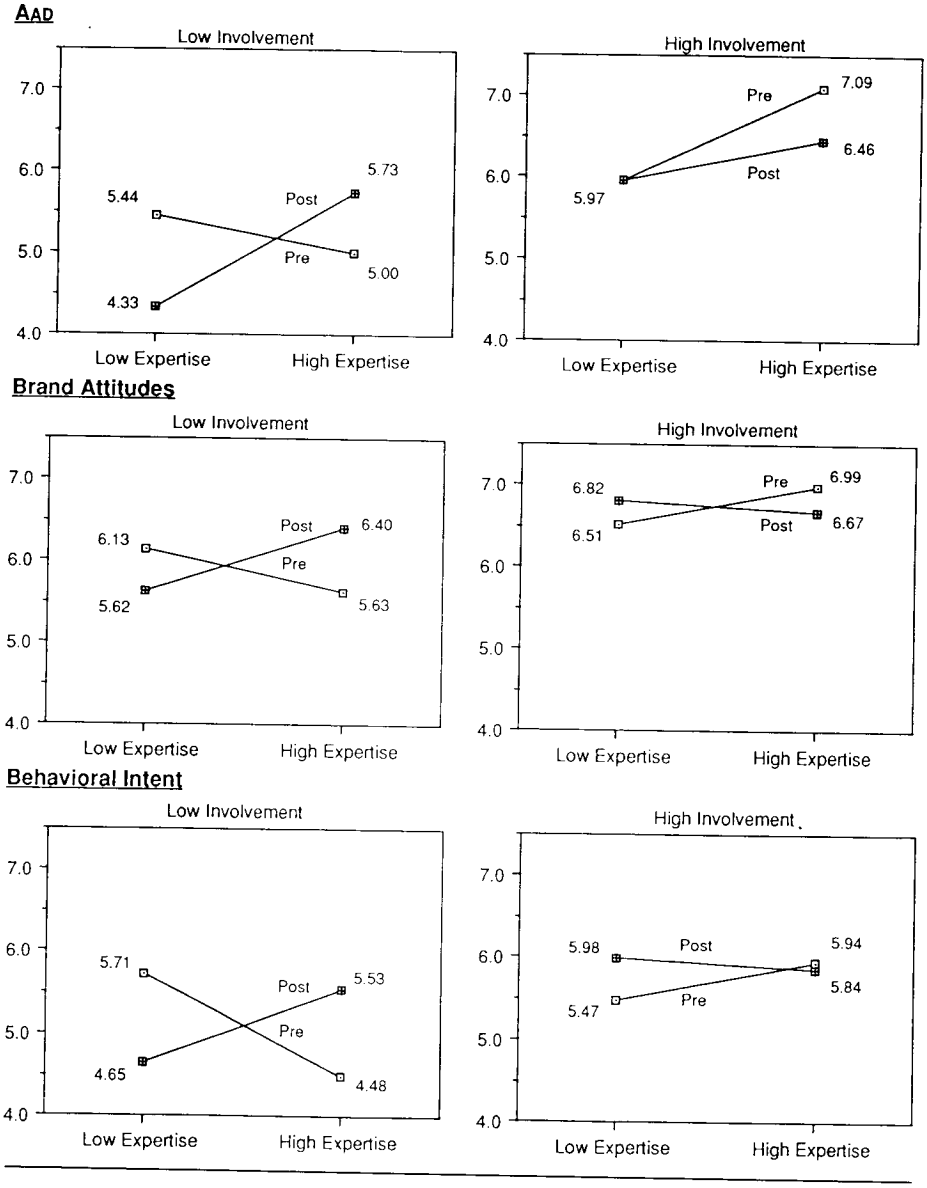

TABLE 1
Summary of Treatment Means for Dependent Measures

Dependent Variable	*Low Involvement*		*High Involvement*	
	Pre-Identification	*Post-Identification*	*Pre-Identification*	*Post-Identification*
A_{ad}				
Low Expertise	5.44	4.33	5.97	5.97
High Expertise	5.00	5.73	7.09	6.46
Brand Attitudes				
Low Expertise	6.13	5.62	6.51	6.82
High Expertise	5.63	6.40	6.99	6.67
Behavioral Intent				
Low Expertise	5.71	4.65	5.47	5.98
High Expertise	4.48	5.53	5.94	5.84

expertise, involvement, and time of source identification ($F[1,220] = 4.53$, $p = .03$). Specifically, whether a source's expertise was more influential when identified at the end of the message or before the message depended on the level of involvement (see Table 1). Planned comparisons among treatment means resembled those reported for A_{ad}. An expert source identified after the message was most influential when involvement was low ($p < .05$). When elaboration of the message increased, prior identification of an expert aided persuasion, but this effect did not attain significance. Once again, the main effect for involvement ($F[1,220] = 12.71$, $p < .001$) was also significant.

Finally, analyses for behavioral intent toward the advertised brand were consistent in terms of the interaction among the three manipulated variables ($F[1,220] = 6.59$, $p = .01$). As stated in H_{1b}, expertise facilitated persuasion under low involvement when presented after the message arguments, but a less expert source was superior when identified prior to the message. This latter finding was not expected, and the predictions for high involvement (H_{1a} were only directionally supported (i.e., the expert and nonexpert pre-identification groups were not significantly different). An involvement main effect also emerged for the behavioral intent construct ($F[1,220] = 7.21$, $p < .01$).

Causal Analyses. A final set of analyses examined the causal role of brand beliefs as mediators of the impact of source expertise on brand attitudes and behavioral intentions (See Figure 2 and Table 2). These analyses were designed to test the peripheral-versus-central cue distinction proposed by the ELM. Models were estimated (using LISREL VI; Jöreskog and Sörbom 1984) for each of the criterion constructs (i.e., attitudes and behavioral intentions), separating the high- and low-involvement subsamples. According to the ELM, central-versus-peripheral processing of persuasion cues is dependent upon the depth of elaboration of the information (i.e., involvement). Therefore, it is appropriate to compare the path estimates for the low-involvement and high-involvement subsamples. While brand attitudes and behavioral intentions were affected by the interaction among the three manipulated variables, only the main effect for involvement emerged. Therefore, because (1) the main effects for expertise and timing of source identification were absent, (2) estimates derived from structural equation analysis are sensitive to small sample sizes (Boomsma 1982), and (3) expertise is explicitly included in the analyzed models, the two levels of timing of source identification were pooled. Furthermore, when timing of the identification of the source's expertise was incorporated in the structural equation model, it had essentially no impact. That is, none of the path coefficients or fit statistics reported here changed sufficiently to alter our conclusions. Therefore, the more parsimonious and interpretable model was utilized.

To determine the peripheral versus central treatment of the expertise cue, models that estimated the expertise → criterion path were compared to those which omitted that link. A strong expertise → beliefs → criterion effect indicates deep elaboration of brand-related information, whereas a strong expertise → criterion link suggests a peripheral influence.

The individual indicators (as identified earlier in the "Method" Section) of each construct were incorporated into each model because a primary advantage of LISREL is its ability to utilize multiple measures without losing information (that occurs from the summation of variables) while specifically accounting for measurement error (measurement model results are excluded from Table 2 to conserve space).

Examination of the chi-square and goodness-of-fit (GFI) statistics indicates that all models accurately "fit" the data. Comparison of the model pairs for each

FIGURE 2
General Causal Model

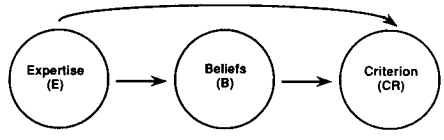

TABLE 2
Results of Causal Model (Without and With Direct Link)

	Low Involvement		*High Involvement*	
Path	*Attitudes*	*Behavioral Intent*	*Attitudes*	*Behavioral Intent*
Without Direct Link				
E→B	.543*	.583*	.580*	.632*
B→CR	.793*	.771*	.662*	.766*
Fit Statistics				
chi-square	16.54	13.37	23.88	6.13
df	18	12	18	12
p =	.543	.343	.159	.910
GFI	.966	.969	.951	.985
With Direct Link				
E→B	.566*	.550*	.625*	.632*
B→CR	.853*	.690*	.849*	.767*
E→CR	−.078^{ns}	.100^{ns}	−.227^{ns}	−.001^{ns}
Fit Statistics				
chi-square	16.14	12.59	21.25	6.13
df	17	11	17	11
p =	.514	.321	.215	.865
GFI	.968	9.70	.957	.985

*$p < .05$

involvement level and criterion (i.e., attitudes and behavioral intentions) combination (eight total models) revealed unanimously that the inclusion of the expertise → criterion path did not cause a substantial change in the magnitude of the expertise → belief or the belief → criterion paths. Furthermore, for all four model pairs, the estimate for the direct path (expertise → criterion) did not approach significance and the corresponding models were essentially equivalent in terms of chi-square, GFI, and p values. As indicated by the nonsignificant path coefficients, the indirect effects of source expertise on brand attitudes and behavioral intentions through brand beliefs were substantially greater than the direct effects. These analyses present rather compelling evidence that the source-expertise information acted as a central persuasion cue under varying levels of involvement in this pretest situation in which the information was conveyed via a print ad.

Concluding Discussion

Past studies have not examined the interactive roles of source expertise, involvement, and timing of the source's identification simultaneously. At most, two of these factors have been manipulated in the same experiment, and often research limitations hindered the validity of the results.

As evidenced by the three-way interaction among the manipulated factors, the presence of increased levels of involvement motivated individuals to retain and retrieve the message content first encountered when asked to form brand evaluations. Perhaps the involvement level created was actually "moderate" (not "high," per se), which is parallel to the ELM argument that with moderate levels of involvement, source characteristics determine how much processing effort is devoted to a message. It seems that source-expertise cues presented early in the message "set the stage" for subsequent processing. When relatively deep elaboration was allocated to message processing, early identification of a less expert source resulted in less favorable evaluations. In contrast, the expertise cue had little impact when positioned after the other brand-related message content. Apparently, the brand-related evaluations were sufficiently established prior to encountering the end of the message; thus, any negative source cues were discounted or ignored. This finding is consistent with compensatory models of attitude formation/change in which an unfavorable rating for one criterion may still result in an overall favorable evaluation of the object.

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When readers do not devote sufficient elaborative effort, expert sources appear to gain more persuasive power when identified at the end of the message. It is possible that this favorable piece of information is retained relatively easily and is then available for use as a surrogate of other brand-related information in later evaluative judgments.

Perhaps the more interesting implications are those derived from the analyses designed to ascertain the type of processing devoted to the source-information cue (i.e., peripheral versus central). A stimulus cue can serve as either a central or peripheral cue depending on the nature of other elements within the persuasion environment (Petty and Cacioppo 1986), but source characteristics have typically been associated with the peripheral route to persuasion (e.g., Petty et al. 1983). The present study concluded that source expertise (one dimension of source credibility) can act as a central cue under certain conditions (i.e., print media). This result occurred under both levels of processing involvement. Presenting the source information in the print ad's copy may have been sufficient to motivate viewers to treat that piece of information as equivalent to or as a surrogate of the other brand-related message arguments.

Managerial Implications. Testimonials have been used almost as long as modern advertising itself, and continue to be a popular form of promotional strategy. The findings reported here suggest that marketers and advertisers should use involvement as a clue to the most effective method of conveying appeals in which product endorsers are used. When using print media, efforts should be made to enhance message involvement (e.g., attention-getting/involvement-inducing headlines and visuals), as indicated by the consistently more favorable evaluations associated with enhanced levels of elaboration. If message involvement is relatively high, it is advantageous to identify expert sources early in the message. This may also be accomplished by indentifying expert sources through captions because of their attention-getting abilities and favorable readership scores (Moriarty 1986). Apparently, the expertise cue serves to encourage even deeper elaboration of the latter information. If a source is perceived as less expert, identification should follow exposure to other key attributes.

Marketers and advertisers should also be encouraged that source expertise can serve as a "central" persuasion cue under the proper conditions, implying they should not assume that all source information is peripherally processed. The challenge remains to determine (1) the robustness of this phenomenon, and (2) what other source characteristics may be processed similarly.

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