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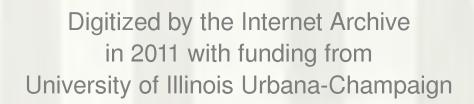
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Mediating Processes for Source Credibility Effects in Advertising: Review, Implications, and Future Research Directions

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Manoj Hastak Jong-Won Park





# **BEBR**

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Mediating Processes for Source Credibility Effects in Advertising: Review, Implications, and Future Research Directions

> Manoj Hastak, Assistant Professor Department of Business Administration

> > Jong-Won Park Graduate Student



#### Abstract

Source credibility has been observed to produce favorable, neutral, and sometimes even unfavorable effects on attitudes in persuasion contexts. These diverse and conflicting findings can best be reconciled if it is first recognized that effects due to variations in source credibility on attitude are likely to be mediated by multiple distinct mechanisms or processes. In this paper, we discuss several such mediating processes, and consider the conditions under which they are likely to operate. We also discuss empirical evidence supporting the existence of these processes, and explicate the implications of this research for the use of credible sources in advertising. Finally, we suggest several issues for future research.



# Mediating Processes for Source Credibility Effects in Advertising: Review, Implications, and Future Research Directions

It has long been recognized that characteristics of the source of an advertisement (either explicitly identified or implicitly understood) can influence ad effects on the recipient. In particular, the use of a credible spokesperson in advertising is commonplace, and clearly based on the assumption that source credibility improves the persuasive impact of advertising messages. Given the intuitive appeal and early empirical support for this assumption (Hovland and Weiss 1951), it is not surprising that there has been minimal recent research examining the effects of credibility on persuasion in advertising contexts (for exceptions, see Frieden 1984; Friedman and Friedman 1979; Harmon and Coney 1982; Mizerski, Hunt, and Patti 1978). However, a growing body of evidence in the psychology literature suggests that source credibility effects on persuasion are far more complex than previously believed. Specifically, this literature suggests that (a) source credibility may have favorable, neutral, and sometimes even unfavorable effects on post exposure attitude towards the communication topic, (b) these effects appear to be highly contingent on the specific levels of other individual difference variables (e.g., involvement, prior knowledge) and situational variables (e.g., modality, time compression, channel noise) that are operating in the reception environment, and (c) a number of different theoretical models and frameworks such as Kelman's functional approach to social influence processes (Friedman and Friedman 1979; Mills and Harvey 1972), the Yale reinforcement approach to persuasion (Maddux and Rogers 1980). cognitive response theory (Hass 1981; Sternthal, Dholakia, and Leavitt 1978), attribution theory (Dholakia and Sternthal 1977), and the Elaboration Likelihood Model (Petty and Cacioppo 1984, 1986a, 1986b) can account for these effects to

varying degrees. Thus, advertisers are faced with an array of apparently conflicting findings and competing explanations as they consider the merits of using credible sources in their communications.

In this paper, we present a synthesis of recent research on source credibility effects in persuasion, and consider the implications of this research for advertising practitioners. Our focus here is primarily on attitudinal effects (see Sternthal, Phillips, and Dholakia 1978 for a review of the literature on behavioral effects due to source credibility). Extant literature suggests that source credibility can produce both direct and indirect effects on attitude towards the advertised object. By direct effects, we mean that source credibility influences final attitude without affecting processing of the ad message itself. Indirect effects refer to the possibility that source credibility affects attitude by modifying, changing, or otherwise altering message processing activity. In the following sections, we discuss several direct and indirect mediating mechanisms for credibility effects on attitude that have been proposed in the literature. We also examine the conditions under which these mechanisms are likely to operate from the perspective of two currently popular theoretical frameworks proposed by Petty and Cacioppo (1986a) and Sternthal, Dholakia, and Leavitt (1978). Finally, we discuss the implications of each of these mediating mechanisms for source credibility effects in advertising, and isolate several research issues that hold special promise for future research.

# Direct Effects

Direct effects due to credibility on attitude in a persuasion context have been most clearly explicated in research on central versus peripheral routes to persuasion by Petty, Cacioppo, and their colleagues (e.g., Petty, Cacioppo, and Goldman 1981). In this framework, recipients of a persuasive message can adopt one of two distinct processing strategies as they examine the message. A central route to persuasion is said to occur if the recipients carefully examine and process those cues in the message that they believe are central to a meaningful and logical evaluation of the communication object. In contrast, a peripheral route to persuasion results when recipients evaluate the communication object based on a rather cursory and superficial analysis of readily available and salient cues in the communication, regardless of whether or not these cues are meaningfully related to the communication object. Specifically, attitudes may be formed or changed via peripheral processing either because the object is associated with positive or negative cues, or because the individual can make a quick evaluative inference about the object based on simple cues in the persuasion context.

Petty, Cacioppo, and Goldman (1981; Petty and Cacioppo 1986a) have proposed that motivation and ability to process a communication are the key determinants of whether central or peripheral processing will occur in a particular situation. Motivation to process depends on such antecedent variables as involvement with the communication issue, need for cognition, and forewarning about the persuasive intent of a communication, while ability may be determined by both intrinsic factors such as prior knowledge and expertise, and situational factors such as level of distraction and noise in the message reception environment (see Petty and Cacioppo 1986b; Batra and Ray 1986; Andrews 1988 for a detailed discussion on the antecedents of motivation and ability to process persuasive communication). High motivation and ability to process (e.g., high involvement with and knowledge about the communication

issue) leads to central processing, whereas peripheral processing results if either the motivation or the ability to process the communication is low.

The "two routes to persuasion" framework suggests that source characteristics such as credibility can have direct effects on attitude under both central and peripheral processing. To illustrate, consider an advertisement for brand X cereal which shows a physician eating the cereal, and also makes the claims that (a) brand X is high in fiber, and (b) brand X stays crunchy in milk. Under central processing, information about the source as well as other stated claims in the ad are likely to be considered relevant to judging the true merits of brand X. Thus, source credibility and believability of the stated claims should independently contribute to the overall evaluation of the brand. In this instance, the source is acting as a persuasive argument (i.e., a central cue), and is processed in a manner akin to other arguments or claims in the message. Under peripheral processing, recipients are not expected to diligently process the stated claims in the message. However, the picture of a credible source consuming the product could be used to rapidly generate a favorable evaluation of brand X. In this case, the credible source acts as a peripheral cue that triggers an overlearned heuristic (i.e., expert sources should be trusted).

There is now considerable empirical evidence to support the claim for direct credibility effects on attitude -- especially under peripheral processing. For instance, Petty and Cacioppo (1986a) have shown that when subjects are uninvolved with an advocacy message (and hence unmotivated to process the message), attitude is strongly affected by a peripheral cue such as source credibility, but is unaffected by the quality of arguments in the message. Similarly, Kiesler and Mathog (1968) obtained strong effects due to source credibility on attitude only when distraction was high -- i.e., when subjects

were in a peripheral processing mode. In contrast, evidence supporting credibility effects under central processing is more limited (see Dean, Austin, and Watts 1971) suggesting, perhaps, that these effects are weaker, and harder to isolate. A likely reason for this is that persuasive arguments in the message are perceived to be more relevant to judging the true merits of an advocacy, and hence overshadow the effects of other variables such as source credibility when involvement is high.

The preceding analysis generates relatively straightforward implications for .

the use of credible sources in advertising. Direct effects of source credibility are expected to follow the intuitively appealing experto crede phenomenon -- credible sources should consistently produce more favorable attitudinal effects than sources lacking in credibility. The timing of source introduction should not influence the strength of these effects since the source does not exert its influence on attitude by first affecting message processing. Consequently, the advertiser has considerable latitude in deciding whether a source should be introduced early or late in a commercial message.

Note that although source credibility is expected to produce similar (positive) direct effects under both central and peripheral processing, there are differences which have significant consequences for advertising. Attitudinal effects induced through central processing are based on a detailed assessment of message content, and are thus likely to be more enduring, and less susceptible to counterattack than changes induced via the peripheral route (see Petty and Cacioppo 1986a for details). Consequently, credibility effects under peripheral processing would need to be frequently augmented (perhaps via repetition, and through point of purchase reminders) unless only short term attitudinal and behavioral impact is desired. In contrast, relatively few exposures should be

sufficient to maintain effects through central processing, although the magnitude of these effects is likely to be more modest.

The variables that moderate direct effects due to source credibility on attitude will also markedly differ depending on which of the two routes to persuasion is being followed. Under central processing, the effects of a cue on attitude are contingent on the persuasive quality of that cue, i.e., the extent to which that cue is considered relevant to logically assessing the communication object. Thus, the source cue should compete with other "central" cues in the ad reception environment (e.g., persuasive quality of message arguments) for impact on attitude. Indeed, the available evidence suggests that very strong or very weak messages may dilute, or even completely eliminate credibility effects when Involvement is high (e.g., Petty, Cacioppo, and Goldman 1981). Thus, it may be fruitful for advertisers to employ credible sources only when other central cues such as message quality are either non-existent or at moderate levels. Under peripheral processing, the relative impact of peripheral cues in the ad (such as credibility, source attractiveness, spontaneous emotional responses, ad attractiveness, etc.) should depend on the relative salience and vividness of these cues -- i.e., the ease with which these cues can be attended to and processed. This suggests, for instance, that if the spokesperson in an advertisement is both attractive and credible, we would expect attitudinal effects due to attractiveness to be stronger because of the vividness of this cue. Evidence supporting this claim was obtained in a study on endorser effects by Pallak, Murroni, and Koch (1984). Support for effects due to vividness of a source cue under peripheral processing is also provided by Chaiken and Eagly (1983) who obtained stronger source effects for audio-visual messages (vivid source cue) than for print messages (less vivid cue).

Needed Research. Many of the practical implications for source credibility effects that were drawn in the previous section are untested, and deserve future research attention. For instance, several studies designed to investigate the "sleeper effect" phenomenon have shown that credibility-induced attitudinal effects decay rapidly over time (Hovland and Weiss 1951; Kelman and Hovland 1953; Shulman and Worrall 1970; Watts and McGuire 1964; see Gillig and Greenwald 1974 for a review, Maddux and Rogers 1980 for an exception). However, these data cannot be interpreted as support for the transient nature of credibility effects under peripheral processing since there is no evidence to indicate that the subjects in these studies engaged in peripheral processing during message exposure. Only one study (Chaiken 1980) has demonstrated that source effects under peripheral processing decay relatively rapidly over time. but this study manipulated source attractiveness, not credibility. Furthermore, there is no evidence to support the predictions regarding differential effects due to ad repetition or point of purchase information on credibility-induced attitudes under central versus peripheral processing.

Also note that virtually all of the evidence on direct effects due to credibility under peripheral processing that we have cited was obtained in lab studies where source credibility was the only peripheral cue available to subjects (see Maddux and Rogers 1980; Pallak, Murroni, and Koch 1984 for exceptions). In contrast, endorsers used in real advertisements frequently provide multiple peripheral cues to audiences. Peripheral cues are also available from other ad features such as background music or scenery. For instance, a print ad might use a credible celebrity in conjunction with attractive background scenery and a lengthy message. Here, source credibility, source celebrity, source attractiveness, ad attractiveness, and message length could all

potentially influence attitude through peripheral processing. Little is currently understood about the relative strength of credibility effects in such realistic multiple cue environments.

Second, future research needs to focus more carefully on the proposed mediators of direct effects due to source credibility on attitude. For instance, since uninvolved audiences are expected to rely on the credibility cue to bypass message processing, one would expect such audiences to (a) generate fewer message-related cognitive responses, (b) generate more source-related cognitive responses, and (c) exhibit lower levels of message recall compared to involved audiences. Unfortunately, cognitive response and recall data are rarely obtained in source credibility research. Furthermore, those studies that have measured these variables have produced ambiguous results. For instance, Pallak, Murroni, and Koch (1984) obtained evidence supporting the predictions for messagerelated, but not source-related cognitive responses, while Moore, Hausknecht, and Thamodaran (1986) obtained the reverse pattern of results. Also, Petty, Cacioppo and Goldman (1981) and Johnson and Scileppi (1969) found no differences in message recall between involved and uninvolved subjects. In sum, extant research provides strong support for direct effects due to source credibility, but not for the mechanisms hypothesized to mediate these effects.

Third, virtually all of the evidence for source credibility effects has concerned attitudes; effects on individual beliefs about brand attributes have rarely been examined (for an exception, see Mizerski, Hunt, and Patti 1978). However, belief measures can provide useful and relatively sensitive tests for source credibility effects, and particularly so under conditions of central 'processing when these effects are expected to be weak. More importantly, belief measures may provide indirect tests of the mechanisms mediating these effects.

Since subjects in a peripheral processing mode are not expected to process attribute specific information in the ad, it is conceivable that their brand attitude could produce strong halo effects on subsequent belief measures. If so, source credibility should produce parallel effects on virtually all belief measures as well on attitude. By contrast, subjects in a central processing mode may only form those belief that are directly based on, or can be logically inferred from the brand information provided in the ad. Thus, credibility should only influence a select subset of (apriori identifiable) beliefs, and these effects may not necessarily parallel the effect on attitude.

Fourth, virtually all of the source credibility research has had a persuasion or yielding focus; effects on earlier information processing stages such as attention have been virtually ignored. However, a credible source may play a crucial role in the ad effects sequence by attracting attention to the ad message. These attentional effects may be particularly crucial for uninvolved audiences who may otherwise choose not to view and process the ad altogether. Research that examines the effects of source credibility in natural viewing environments (rather than in lab settings where attention is forced) and that examines effects for ads with and without a credible source (rather than ads endorsed by credible versus noncredible sources) should prove useful in isolating credibility effects on attention, and also in examining the extent to which attention levels moderate the credibility-attitude relationship.

Also note that an implicit assumption in virtually all of the research on credibility effects is that audiences are persuaded (i.e., form attitudes towards the advocacy object) during exposure to a communication, and differ only in the persuasion route (central versus peripheral) they follow for judging attitude. This may not be a valid assumption for uninvolved audiences. For instance,

Mitchell (1981, 1986) has argued that uninvolved audiences may completely bypass brand evaluation by engaging in a nonbrand processing strategy, i.e., by focussing attention on brand unrelated cues in the advertisement (also see Gardner, Mitchell, and Russo 1985; Gardner 1985; Krugman 1965). Lichtenstein and Srull (1985, 1987) have shown that subjects who do not form a brand evaluation during ad exposure subsequently rely on recalled information from the ad to construct a brand attitude when required to do so (also see Hastie and Park 1986). This suggests that the strength of credibility effects for uninvolved audiences will depend on the accessibility of source versus message cues at the time an attitudinal judgment is made (e.g., during purchase). The strength of these effects may also depend on the level of involvement at the time such a judgment is made. For instance, some audiences may be uninvolved with an advertised brand during ad exposure, but they may become much more involved with the brand as they approach purchase. If so, then one would expect them to retrieve brand-related information from memory, and engage in central processing during the purchase episode. In contrast, audiences who are uninvolved with the brand during the ad viewing as well as the purchase episode may be much more likely to minimize cognitive effort by retrieving and relying on a peripheral cue such as source credibility to judge attitude prior to purchase. Future research needs to take a dynamic view of involvement, and consider the effects of change in involvement between the ad viewing and purchase episodes to better understand the mechanisms mediating source credibility effects on attitude that occur after ad exposure and processing.

Finally, note that much of the evidence for direct effects due to source credibility is based on studies in which involvement with the advocacy issue was manipulated to induce central versus peripheral processing. Unfortunately,

involvement is an individual difference variable that cannot be manipulated by an advertiser to suit his communication objectives. However, recent research suggests that other antecedents of motivation to process information such as message tone (Pallak, Murroni, and Koch 1984), and mood induced by an advertisement (Worth and Mackie 1987), and ability to process information such as media type (Chaiken and Eagly 1983), and time compression (Moore et al. 1986) could also moderate source credibility effects by inducing central versus peripheral processing on the part of respondents. Research which examines the simultaneous effects of source credibility and these types of variables should prove useful because it would give advertisers insights about how they could alter recipients' message processing strategy so as to maximize attitudinal effects due to credibility.

## **Indirect Effects**

Source credibility can also affect attitude indirectly by first influencing the way in which people process and evaluate claims made in the persuasive message. We consider two possibilities here, namely that credibility could either influence the magnitude of message processing, or influence the (evaluative) direction of processing. Since these two mediating mechanisms are predicted by different theoretical perspectives, we consider each one separately.

Effects on Amount of Processing. The "central versus peripheral processing" framework nicely accounts for source credibility effects under extreme levels of motivation and ability to process message arguments. However, most persuasion contexts are probably not characterized by extreme motivation and ability levels. In recent years, Cacioppo and Petty (1984; Petty and Cacioppo 1986a,

1986b) have proposed an extension of the "central/peripheral routes" framework termed the elaboration likelihood model to account for persuasion processes under moderate levels of involvement and ability. The ELM suggests that when motivation to process a communication is at moderate levels, cues such as credibility of the source will act neither as a message argument nor as a peripheral cue. Rather, credibility will influence the amount of message processing that audiences engage in (see Petty and Cacioppo 1986a for details). For example, consider a situation in which a communication is somewhat counterattitudinal, but the recipient is only moderately involved with the advocacy issue and hence unsure about the extent to which (s)he should process the communication. A counterattitudinal message clearly represents a threat to the recipient's current beliefs and attitudes. A highly credible source intensifies this threat, and should thus induce detailed evaluation of the message arguments. In contrast, the threat perceived from a counterattitudinal message should be lowered if the message is attributed to a source of low credibility. This should allow recipients to assess the implications of the communication without a detailed examination of its contents. Note that the effects of high versus low credibility sources on the intensity of message processing will be reversed if the communication is proattitudinal. Recipients will perceive a greater threat if they receive a message they agree with from a source that they do not trust. Consequently, a low credibility source should lead to greater message processing for proattitudinal messages.

Empirical support for credibility effects on amount of message processing comes from a study by Heesacker, Petty, and Cacioppo (1983) which examined the effects of message quality (strong versus weak) and source credibility (high versus low) on attitude towards a moderately involving and counterattitudinal

topic (i.e., an issue whose consequences for the subjects were uncertain). As expected, the credible source induced subjects to more deeply process message claims, and thus intensified the effects of message quality on attitude. In contrast, message quality had no effect on attitude when the message was attributed to a source of low credibility. Stated differently, the low credibility source diluted the effects of message quality by reducing recipients' motivation to carefully scrutinize the message.

In sum, the ELM framework suggests that effects due to source credibility under moderate involvement levels are contingent on the quality of the message arguments as well as initial opinions of the audience members. If an advertisement is targeted primarily at an unfavorable audience, then a highly credible source should only be used if the claims made in the advertisement can stand up to close scrutiny. If these claims are vacuous, then a credible source would actually be dysfunctional since it would intensify message processing and hence amplify the negative effects due to uncompelling arguments in the message. It would also not be advisable to use a low credibility source, since that would allow recipients to reject the message without engaging in message processing. Instead, advertisers would do well to rely on other positive peripheral cues (such as an attractive source or pleasant music) to create direct attitudinal effects.

These recommendations are reversed for audiences who are initially favorable. Specifically, favorable audiences will be more persuaded by a compelling message if it is coupled with a source of questionable credibility, since such a source would lead to more careful message scrutiny. A highly credible source would only be advisable if it is desirable that the audience not engage in detailed message processing. Such would clearly be the case when the

advertised brand has no distinctive advantage over its competitors, and is hence being supported by relatively vacuous claims.

Effects on Direction of Processing. Sternthal, Dholakia, and Leavitt (1981) (also see Sternthal, Phillips, and Dholakia 1978) suggest an alternative way in which source credibility may affect attitude in a situation of moderate involvement. These authors examine credibility effects within a cognitive response model of persuasion. The cognitive response model (Greenwald 1968; Wright 1973, 1980) asserts that the effects of a persuasive message on attitude are mediated by the spontaneous thoughts or cognitive responses generated by recipients during message exposure. If these responses are primarily negative (i.e., counterarguments) then negative attitudes result. On the other hand, predominantly positive responses (i.e., support arguments) lead to a more favorable attitude towards the advocacy object.

A variable such as source credibility can influence attitudes by first affecting the mix of counter/support arguments generated during the message viewing episode. If the message is counterattitudinal, then recipients are primarily predisposed to counterargue with the message regardless of the credibility of the source. However, it is more difficult to counterargue with statements made by a credible or expert source. Thus, a credible source should inhibit counterargumentation and hence lead to a more favorable attitude. In contrast, a proattitudinal message will primarily predispose recipients to support argue. If the message is attributed to a source lacking in credibility, recipients will believe that the source is not qualified to adequately represent the issue that they support. Consequently, a source of moderate or low credibility will actually bolster the recipient's natural tendency to engage in support argumentation, and hence further polarize the already favorable attitude. In

sum, source credibility is expected to influence attitude by first affecting the direction rather than the intensity of thinking.

It should be noted that the framework discussed above was originally presented as a general representation of source credibility effects regardless of level of involvement. Subsequently, Sternthal, Phillips, and Dholakia (1978) argued that credibility would likely affect message processing only when involvement was not at extremely high levels. Since the cognitive response model has generally been recognized as not adequately dealing with low involvement message processing situations, it appears that the Sternthal et al. framework is primarily suitable in situations of moderate issue involvement.

A key prediction of the Sternthal et al. framework is that credible sources will be persuasive if recipients have an initial negative opinion towards the advocacy issue, but will actually operate as a persuasive liability for initially positive recipients. This predicted interaction between source credibility and initial opinion has been supported in a number of studies (Bock and Saine 1975; Harmon and Coney 1982; Sternthal, Dholakia, and Leavitt 1978). Note, however, that the ELM model makes an identical prediction if the quality of persuasive messages is assumed to be high. Since all three of the studies listed above employed reasonably compelling arguments in their experimental communications, these studies do not differentiate the ELM model from the framework proposed by Sternthal, Dholakia, and Leavitt (1978).

Although the ELM model and the Sternthal et al. framework generate identical predictions when message quality is strong, it is worth emphasizing that the mediating mechanisms for credibility effects postulated by the two approaches are conceptually distinct. The ELM suggests that source credibility influences the extent to which a message is processed. Consequently, credibility

simply serves to amplify or weaken the effects of other variables (such as message quality) on attitude. In contrast the Sternthal et al. framework proposes that credibility modifies the way in which message arguments are interpreted independent of the quality of these arguments. Consequently, a compelling test of the two frameworks requires an examination of credibility effects for strong as well as weak messages. Sternthal, Dholakia, and Leavitt (1978) predict no difference in the source credibility by initial opinion interaction as a function of message quality, while the ELM framework predicts a three-way interaction, i.e., a source of high (low) credibility is expected to polarize effects due to variations in message quality when initial opinion is negative (positive). Evidence from Heesacker, Petty, and Cacioppo (1983) thus appears to support the ELM framework. However, more research is clearly needed before the precise mechanism for source effects under moderate involvement levels is clearly understood.

Finally, both frameworks make similar predictions regarding the durability of credibility effects, and the appropriate timing for source introduction in the message. Source credibility effects on attitude under moderate involvement are expected to be based on the amount and direction of message processing.

Consequently, these effects should be durable and resistant to counterattack, and should be observed only when the identity of the source is revealed early in the communication.

Needed Research. Since the frameworks proposed by Petty and Cacioppo (1986a) and Sternthal, Dholakia, and Leavitt (1978) propose different mediating mechanisms for source credibility effects, an important priority for future research should be to develop critical tests which pit these frameworks against each other. As noted earlier, an experiment which manipulates initial opinion, ad

message quality, and source credibility can provide such a test. Additional tests can be generated by examining cognitive response data. Since ELM predicts that source credibility effects are mediated by the amount of message processing that audiences engage in, credibility should influence the total number of message-related cognitive responses, but should not influence the mix of these CRs (i.e., counter versus support arguments). By contrast, credibility effects on the direction of processing (as predicted by Sternthal et al) should be reflected in the mix of message-related CRs.

Even stronger tests for the two competing frameworks can be generated by examining the moderating influence of variables which are known to influence either the amount of ad message processing, or the direction of ad message processing (but not both). One such variable may be ability to process. Since ability to process (as determined by intrinsic factors such as prior knowledge, or extrinsic factors such as distraction) is likely to influence the magnitude, but not the direction of message processing, ability should interact with source credibility under ELM, but not under the Sternthal et al framework. For instance, Figure 1 presents the results we might expect under the ELM framework (panels a, b, and c) and under the Sternthal, Dholakia, and Leavitt (1978) framework (panels d, e, and f) from a hypothetical experiment in which moderately involved subjects are exposed to a counterattitudinal message in a 2 (high versus low source credibility) by 2 (strong versus weak message quality) by 3 (high, moderate, and low ability to process) factorial design. Under ELM, source credibility should strongly polarize the effects of message quality on attitude when ability is high. As ability drops to moderate levels, so should the strength of polarizing effects due to source credibility. Finally, at low levels of ability, subjects should switch into a peripheral processing mode, and thus

manifest a simple credibility main effect. In contrast, the Sternthal et al. framework predicts identical credibility effects regardless of level of the ability factor.

Analogously, forewarning subjects about the persuasive intent of a counterattitudinal message is likely to put them in an anticipatory counterargumentative mode (Petty and Cacloppo 1977), i.e., influence the direction of message processing rather than the magnitude of processing. Consequently, the Sternthal et al framework predicts an interactive effect due to forewarning and source credibility on attitude -- credibility effects should be stronger for audiences who are forewarned. In contrast, The ELM predicts no differences in credibility effects as a function of forewarning. In sum, future experimental research of the type discussed here should provide the basis for "strong inference" in the study of source credibility effects by supporting one proposed explanation for these effects while simultaneously rejecting the other.

# Conclusion

Our review of the literature suggests that source credibility can operate in a persuasion environment in several distinct capacities -- as a persuasive argument, as a peripheral cue, or as a variable that influences the intensity and/or direction of active message processing. Figure 2 displays each of these mediating mechanisms, while Table 1 summarizes the conditions under which they are likely to operate, prior empirical support, and implications for the use of credible sources in advertising.

The ELM framework, and the cognitive response framework proposed by Sternthal, Dholakia, and Leavitt (1978) have emerged in only the last decade or

so, and yet they provide a rich conceptual network of propositions and ideas that can be used to develop extremely subtle and complex predictions concerning credibility effects in persuasion contexts. Unfortunately, theoretical development has far outpaced empirical research in this area -- in many instances, direct empirical support for well developed hypotheses is simply nonexistent.

Perhaps the area in most pressing need of future research concerns credibility effects under moderate involvement situations. It seems likely that recipients of advertising messages are frequently uncertain about the consequences of the advertised brand to their personal lives. Extant literature suggests that credibility effects under such conditions may occasionally be negative, and could be accounted for by more than one mediating mechanism. Moreover, it is possible that the two proposed mechanisms may operate in parallel, or one may dominate the other as a function of other (as yet unspecified) variables in the ad reception environment. These important issues have received virtually no attention in the literature. Indeed, we found very few studies that were explicitly designed to examine the hows and whys of credibility effects under moderate involvement. The study by Heesacker, Petty, and Cacioppo (1983) is an exception in that it provides compelling support for predictions derived from the ELM in a counterattitudinal situation. However, predictions of this framework for credibility effects on an initially favorable audience have never been tested. Furthermore, neither the ELM nor the Sternthal et al. framework makes any predictions concerning credibility effects for audiences that are neutral towards, or have no initial opinion about the communication object. This is clearly a research area with tremendous theoretical and practical consequences.

Finally, it should be noted that much of our discussion in this paper is based on persuasion studies reported in the psychology literature. There is clearly no guarantee that effects and mediators uncovered in lab studies involving simple, verbal messages will generalize to more complex ad reception environments. There is a need for constructive replication designed to "fix" these effects in environments relevant to advertising and marketing practitioners.

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# Summary of Mechanisms Mediating Source Credibility Effects

Determining conc	lition Empirical support	Implications
Direct Effects: Ci	redibility as a persuasive	argument
High motivation/ High ability	Dean, Austin, and Watts (1975)	<ol> <li>Effects are always positive.</li> <li>Effects are relatively enduring.</li> <li>Timing of source identification will not influence these effects.</li> <li>Magnitude of effects influenced by other central cues (e.g., ad message quality).</li> </ol>
Direct Effects: Ci	redibility as a peripheral	cue
Low motivation/ Low ability	Johnson and Scileppi (1969)	<ol> <li>Effects are always positive</li> <li>Effects are transient and likely to decay rapidly.</li> <li>Timing of source identification will not influence these effects.</li> </ol>
	Rhine and Severance (1970)	
	McGinnies (1973)	4. Magnitude of effects is influenced by other peripheral cues (e.g.
	Andreoli and Worchel (1978)	source attractiveness.
	Mizerski, Hunt, and Patti (1978)	
	Petty, Cacioppo, and Goldman (1981)	
	Pallak, Murroni, and Koch (1984)	
	Worth and Mackie (1987)	

Determining condition Implications Empirical support Indirect Effects: Effects on the amount of processing Moderate Heesacker, Petty, 1. Nature of effects (positive motivation and Cacioppo or negative) is contingent (1983)on (a) recipient's prior opinion and (b) ad message quality 2. Effects are relatively enduring. 3. These effects will be observed only when source is identified before message. 4. Magnitude of effects is moderated by other variables (e.g., ability to process message) that influence amount of ad message processing. Indirect Effects: Effects on the direction of processing Moderate Bock and Saine 1. Nature of effects (positive motivation (1975)or negative) is contingent on recipient's prior

Sternthal, Dholakia, opinion and Leavitt (1978)

> Harmon and Coney (1982)

2. Effects are relatively enduring.

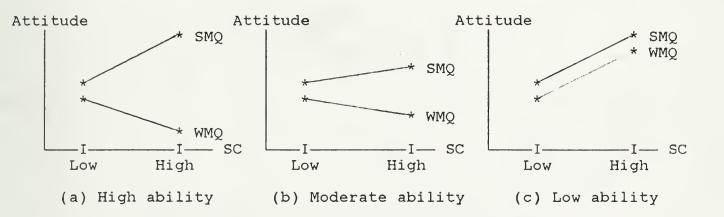
3. These effects will be observed only when source is identified before message.

4. Magnitude of effects is moderated by other variables (e.g., forewarning) that influence direction of ad message processing.

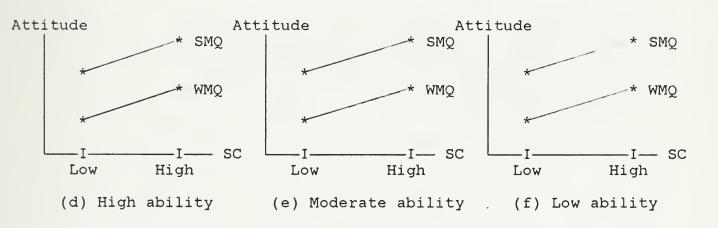
#### FIGURE 1

Source Credibility Effects as a Function of Ability to Process the Ad Message: Differential Predictions as Derived from the ELM and Sternthal, Dholakia, and Leavitt (1978) Framework<sup>1</sup>

### **ELM Predictions**



#### Sternthal et al. Predictions



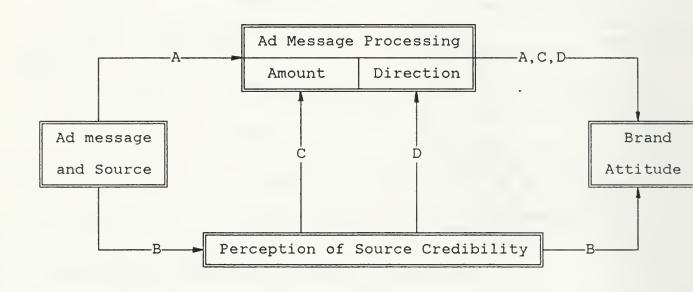
<sup>:</sup> Counterattitudinal message and moderate involvement situation.

ote:

SC; Source Credibility

SMQ; Strong message quality WMQ; Weak message quality.

FIGURE 2 Alternative Mediation routes for Credibility Effects on Attitude



A: Direct effects (Credibility serves as a persuasive argument).

B: Direct effects (Credibility serves as a peripheral cue).
C: Indirect effects (Credibility influences the amount of ad message processing).

D: Indirect effects (Credibility biases the direction of ad message processing).

