Contemporary research on attitude change processes is reviewed for implications regarding the relative influence of successive opposing messages on final judgments. Based on this review, extent of message relevant elaboration is offered as a moderator of primacy versus recency effects in prior research. Support for this view is derived from the ability to explain the results of previous studies and from two experiments in which message presentation order and personal relevance of the topic are manipulated in a factorial design. We find that situations that foster high levels of message elaboration lead to greater influence of an initial message on final judgments (a primacy effect) whereas situations that foster low levels of message relevant elaboration lead to greater influence of a second message on final judgments (a recency effect).

The overriding goal of much consumer research over the past 20 years has been to gain an understanding of how persuasion variables interact in the development of attitudes toward brands, services, and persons. Besides sharing the goal of understanding when a particular combination of variables will lead to the greatest amount of persuasion, most consumer research has employed a single-message methodology. That is, in most studies, participants read or listen to a single persuasive message supporting one product or side of an issue. In the most common multimessage paradigm, individuals are exposed to several messages supporting the same product or side of an issue (e.g., Gorn and Goldberg 1980; McCullough and Ostrom 1974). Although such studies provide important information about the factors involved in persuasion settings, these single-message, single-side methods cannot address questions about some very real consumer situations: those in which a consumer faces contradictory messages from different sources on a single topic, product, or service.

Consider, for example, an individual exposed to the mass media during the week of February 6, 1989. By chance, he or she might have first encountered information provided by consumer groups that a chemical used on apples and other fruits was unsafe and should be banned. Soon afterward, he or she might have encountered a message by other sources arguing that chemical treatments to apples and other produce were quite safe and were necessary to insure the continued availability of insect- and disease-free fruits (see Evans 1989; Roberts 1989). Another person might have encountered the messages in exactly the opposite order. Sometimes, sources of messages might even have some control over whether their message is heard before or after their opponents. For instance, a company might know that a competing company has purchased advertising time in a given time slot (e.g., on television or radio). If so, that company can decide to purchase advertising for their product either before or after the competitor. One important question about such situations is the extent to which presentation order of conflicting messages influences the position adopted by the consumer. That is, although people might encounter the information in one order rather than the other (either because of the strategy of the marketer or simply by chance), the order in which that information is presented might lead people to be more supportive of one side of the issue or the other.

Two effects of order have received attention (e.g., Hovland, Campbell, and Brock 1957). If people who encounter two opposing messages form judgments more consistent with the first message, a primacy effect has occurred. If the judgment is more consistent with the second (opposing) message, however, a recency effect is present. To the extent that simple order of presentation
can affect a consumer's final judgments or preferences, it would be especially important to understand conditions under which primacy versus recency effects are likely to occur.

**THE EXISTING LITERATURE**

Although consumer researchers have investigated issues such as effects of order of presentation of pricing information (Gray 1992; Monroe 1992) and product attribute presentation (Kardes and Herr 1990; see also McGuire 1957), no consumer research has focused on the effects of opposing message order. Effects of message order have been demonstrated in a variety of persuasion settings, however. In this work, strong evidence exists for the occurrence of both primacy and recency effects, although the conditions fostering each effect and the mechanisms underlying each outcome have not been established.1

In the earliest research in the area, Lund (1925) presented subjects with a written communication either supporting or opposing implementation of protective tariffs and then presented subjects with a communication on the other side of the issue. Lund observed a "disproportionate influence of the first discussion (message) in determining subjects' final position" (p. 187). The data, he suggested, supported what he called a "law of primacy in persuasion" (see also Knowler 1936). Some years later, Hovland and Mandell (1957) conducted a series of studies in the primacy-recency paradigm. One study using the tariff topic showed a significant primacy effect and another using the topic of atomic submarines showed a significant recency effect (see also Cromwell 1950). Based on these findings, Hovland and Mandell (1957) concluded that they could discern no universal law of either primacy or recency. Summarizing the work on message order, Hovland (1957) stated that studies using well-known issues on which subjects had a great deal of prior knowledge would have a difficult time in producing any kind of attitude change, but hypothesized that "the nearer one comes to achieving primacy in the sense of the first presentation of unfamiliar material, the more one is apt to obtain primacy effects" (p. 139).

Lana conducted a series of studies that investigated Hovland's (1957) ideas. Unexpectedly, Lana (1961) found primacy effects under conditions of high familiarity and recency effects under conditions of low familiarity with an issue. In research interpreted as consistent with his 1961 findings, Lana (1963b) found a significant primacy effect for a high-controversy issue (nuclear weapons), but not for a low-controversy issue (Picasso). Finally, Lana (1963a) found that subjects who reported high interest in a topic exhibited a significant primacy effect, whereas subjects who reported having low interest exhibited a significant recency effect. Although his results conflicted with Hovland's (1957) position, Lana presented no framework within which to organize his research. Lana hoped that similarities between the findings from other studies and his findings could be used as a basis for empirical generalizations. That is, he considered his studies as "building a body of empirical information... about which a theory of communication might be developed" (Lana 1963a, p. 164).

Other researchers at the time echoed Lana's (1963a) acknowledgment that no theoretical position had proven capable of organizing the literature on message order effects (e.g., Rosnow and Robinson 1967). Perhaps because of the lack of an organizing theoretical framework, research on the influences of two opposing communications faded from view in the mid-1960s (Rosnow 1966). Some studies had obtained primacy effects; others using different message topics had obtained primacy, recency, or null effects in various conditions. An additional complicating factor was that levels of the factors under investigation had been confounded with message topic (e.g., controversy) or were identified through subject self-report (e.g., self-rated interest in the topic) rather than experimental manipulation. Thus, one is left unsure whether past message order effects were even due to the conceptual factors noted by the researchers at the time.

While most of the above studies were guided by a goal of understanding conditions under which primacy effects might be expected, Miller and Campbell (1959) focused on understanding conditions under which recency effects were most likely to appear.2 Drawing on the Ebbinghaus (1913) forgetting curve, Miller and Campbell hypothesized that recency effects would be due to differential memory for the message arguments (i.e., the arguments of the message presented immediately preceding the attitude judgment should be more likely to come to mind than the arguments presented earlier, especially when some time separated the two messages): In examining this issue, Miller and Campbell's (1959) research used a simulated court trial and included a condition in which messages were presented

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1 Historically, research on order effects proceeded along two lines. One line of research focused on whether the first or second of two opposing messages would have a greater persuasive effect (e.g., Hovland and Mandell 1957). A second line of research focused on positioning of arguments within a single persuasive message (e.g., McGuire 1957). The present research focuses on the former rather than latter line of research.

2 During this period, a number of additional explanations of some primacy effects were also proposed. For example, primacy was hypothesized to occur because of proactive inhibition (e.g., Hovland 1951), decreased attention to later information (e.g., Anderson 1965), greater criticality toward the second message (e.g., Hovland et al. 1957; Lund 1925), or change of meaning of the second message (e.g., Insko 1967). Most of the studies from which these explanations were derived, however, do not fit the criteria for the studies reviewed in this article—that is, two opposing messages from two different sources presented close in time. In addition, these explanations did not address when a particular process would or would not be likely to occur nor were any of these perspectives able to organize the literature on message order effects (see Eagly and Chaiken [1993] and Lana [1984] for reviews).
close in time and attitude measurement occurred immediately and another condition in which the message presentations were separated by one week and attitude measurement occurred immediately after the second message. In support of their hypothesis, a recency effect was obtained when messages were separated by one week and attitude measurement immediately followed the second message. Interestingly, in the condition similar to the studies reviewed earlier (i.e., messages presented close in time with immediate attitude measurement following the second message), Miller and Campbell found no differences as a result of message presentation order. Unfortunately, the proposed mediator of order effects (i.e., memory for message arguments) did not predict final attitudes of participants ($r = -0.10$, NS across all conditions). This lack of correlation between memory and opinion has also been replicated by Insko (1964).

Thus, although a variety of perspectives have been used to account for particular message order effect studies, no one framework has appeared capable of predicting when the various results of message order are likely to occur (McGuire 1966). If one links the variables studied in the message order literature with contemporary work on attitude strength, however, consistent predictions concerning order effects can be made.

### AN ATTITUDE STRENGTH EXPLANATION OF THE EXISTING LITERATURE

One potentially useful way to conceptualize research on message order is as a test of attitude strength—operationalized here as the degree of attitude resistance in the face of an attack. That is, if a first message is successful in changing the attitude of the message recipient (or in creating an attitude if none exists prior to the first message), the amount of change in response to the second message is an index of the strength of the attitude following the first message (see Haugtvedt and Petty 1992). Our attitude strength perspective is derived from the Elaboration Likelihood Model's (Petty and Cacioppo 1986) explicit recognition of the role of elaboration in creating strong attitudes (see Haugtvedt and Petty 1992; Petty et al. 1994). Thoughtful scrutiny (elaboration) of an initial message likely includes greater integration of new information with existing knowledge structures (Petty and Cacioppo 1986; see also Craik and Lockhart 1972) and/or allows for more personal transformations of information into the underlying belief structure (or schema) for an attitude object (Greenwald 1968). The process of elaboration may also allow new information and feelings to come into contact with more points of existing information, enhancing the likelihood that the idiosyncratic elaborations and information supporting the attitude will become more available and accessible (see Haugtvedt and Petty 1992; Petty and Cacioppo 1986). To the extent that supportive cognitive responses and other pieces of information are available from prior elaboration, knowledge structures supportive of one’s attitude may then be used in scrutinizing information relevant to the well-formed opinion. The use of supportive information in processing an opposing message should then lead to resistance to attitude change in face of the attack. This is what seemed to occur in the Haugtvedt and Petty (1992) resistance study when subjects high in need for cognition (and thus most likely to scrutinize message content; Cacioppo and Petty 1982) were found to counterargue a weak attacking message to a greater extent than subjects low in need for cognition. Importantly, any variable that increases the amount of elaboration in the formation or change of an attitude should lead to similar increases in attitude strength, which can manifest itself as increased resistance to change in face of an attack (Haugtvedt and Petty 1992; Petty and Cacioppo 1986).

One might conceptualize primacy effects as involving high levels of attitude strength (and thus resistance to change) for attitudes formed or changed during the first message and recency as involving low levels of attitude strength and resistance. If so, then primacy effects should be most likely when motivation and ability to elaborate the initial message are high. That is, when facing an attack, people will likely defend the strong position developed from processing the first message.

On the other hand, recency effects should be most likely when motivation and ability to elaborate the initial message are low (when low levels of processing of the first message may result in a relatively weak attitude). This might allow processes that involve the second message to have an impact—for example, recall and use of recently presented information as a basis for a final attitude. That is, although memory for message

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3 Although there are other potential consequences of attitude strength (e.g., attitude persistence or prediction of behavior from attitudes; see Petty, Haugtvedt, and Smith 1994), resistance appears most pertinent to the study of message order in that opposing messages constitute a direct attack on one’s attitude following an initial message.

4 We use the term “resistance” to refer to the amount of attitude change evidenced in the face of an attack (i.e., high resistance refers to little change in face of an attack, whereas low resistance refers to much change; see McGuire 1964). Importantly, we do not take this term to involve any necessary assumptions regarding the process leading to attitude change. For example, one could have an attitude that is highly resistant because the person ignores subsequent information (perhaps because the person thinks s/he already has enough information on the topic and has high confidence in the opinion) or because the person actively counterargues claims that are against his or her current attitude.

5 Unfortunately, although existing attitude resistance studies support the view that high levels of elaboration of an initial message lead to greater resistance (less change in the face of an attack), these studies cannot directly address the role of resistance in message order effects. This is because resistance studies have employed only a single message order, with an attack message that is weaker than the initial message. Because message order experiments use pro and con messages that are of equal strength, the message order paradigm constitutes a strong test of attitudes strength/resistance notions.
arguments has not proven to be a general explanation of all order effects (see earlier discussion of Insko [1964]; Miller and Campbell [1959]), recent research has found that memory for message arguments should play a role in attitude change processes primarily in low-elaboration settings (when recency effects appear most likely to occur). For example, the correlation between the favorability of postmessage attitude (measured immediately after message presentation) and the amount of information recalled is generally higher under conditions that encourage low rather than high elaboration of message content (Mackie and Asuncion [1990]; for similar results see Haugtvedt and Petty [1992]). The generally accepted explanation is that participants operating under low-elaboration conditions had not fully formed an opinion until the attitudinal inquiry whereas high-elaboration participants had evaluated the message content and formed their opinion on-line (e.g., see Hastie and Park [1986], and Lichtenstein and Srull [1985, 1987], regarding on-line vs. memory-based impression formation). Thus, if recency effects occur when elaboration is low, one reason for this might be reliance on message content when formulating a response to the attitudinal inquiry. If so, memory for message content (especially memory for recently presented material [Wyer and Srull 1980], that is, arguments in the second message) should be positively related to attitudes for subjects low in elaboration likelihood. There should be little or no relation between memory for recently presented arguments and final attitude for subjects under high-elaboration conditions.

By categorizing past studies of message order according to variables that influence the extent of message processing, patterns of findings consistent with an attitude strength perspective are revealed. For example, confound with message topic and self-selection of subjects notwithstanding, it appears that high levels of topic familiarity, controversy, and interest were generally associated with primacy effects. That is, topics for which subjects were either made knowledgeable (e.g., vivisection; Lana 1961) or topics that were likely to be familiar and controversial (e.g., protective tariffs [Hovland and Mandell 1957; Lund 1925]; prohibition [Knowler 1936]; nuclear weapons [Lana 1963b]) produced primacy effects. Similarly, subjects who reported high interest in a topic showed primacy effects (Lana 1963a). Recency effects, on the other hand, appeared more likely when individuals knew little about the topic (Lana 1961) or showed little interest in the topic (Lana 1963a).

Results of contemporary research suggest that variables like familiarity, controversy, or interest are likely to influence the extent of message elaboration. For example, research has shown that messages are processed more thoroughly when participants have high prior knowledge as opposed to low prior knowledge (e.g., Wood, Kallgren, and Priesler 1985). When topics are made more interesting or involving (controversial), messages are also processed more thoroughly than when the topics are made less interesting or involving (e.g., Petty and Cacioppo 1979; Petty, Cacioppo, and Schumann 1983). It appears then, that, when organized by factors that have been found to influence message elaboration, the existing literature can be viewed as consistent with an attitude strength perspective on message order effects.

The ability to conceptually organize the studies reviewed here provides initial support for our perspective. Importantly, this theoretical position has not been previously offered as a way to organize the literature on opposing persuasive messages from distinct sources. Support for our conceptualization, however, is based on effects observed across studies and on assumptions made about the effects of variables present in the studies. Stronger support for our conceptualization could be obtained through manipulation of variables known to influence the amount of elaborative processing given to the messages and through the examination of data that measure possible processes underlying effects of message order.

For instance, manipulations that influence the extent of elaboration given to message content should also influence recipients' cognitive responses to the message (e.g., Petty and Cacioppo 1979). Thus, if primacy effects are due to effortful evaluation of an initial message, then message order should not only influence final attitude but should also influence measures of cognitive responses. If recency effects generally occur when elaboration likelihood is low, then message order should not have much influence on cognitive responses. In addition, if high-elaboration subjects are using the informational base supporting their attitude consistent with the first message when they evaluate the second message, then cognitive responses of these people might show a larger number of direct counterarguments toward statements in the second message than low-elaboration subjects (i.e., direct questioning or refutation of the validity of arguments in the second message should be higher for high- than for low-elaboration subjects). Thus, our processing/attitude strength perspective leads to the following hypotheses about attitudes following the presentation of two conflicting messages:

**H1a:** Under conditions fostering high message elaboration, final attitudes will show primacy effects (more favorable attitudes following a pro/con than a con/pro message sequence).

**H1b:** Under conditions fostering low message elaboration, final attitudes will show recency effects (more favorable attitudes following a con/pro than a pro/con message sequence).

A number of auxiliary predictions are also made.

**H2a:** Message sequence will influence cognitive responses more under conditions fostering high rather than low message elaboration. That is, pro/con message order will lead to more favorable cognitive responses than con/pro message order to a greater extent under
high- as opposed to low-elaboration conditions.

H2b: Message recipients are more likely to counterargue the second message under high- as opposed to low-elaboration conditions.

H2c: Final attitudes under low-elaboration conditions will be positively associated with recall of second message arguments to a greater extent than final attitudes under high-elaboration conditions.

EXPERIMENT 1

For our first experiment examining message order effects we directly manipulated likelihood of elaboration (via personal relevance of the message topic; see Petty and Cacioppo 1979) along with message order. In order to do this, we chose a topic that has been commonly employed in initial persuasion research and for which manipulations of level of processing are well established: the topic of instituting senior comprehensive exams as a prerequisite for graduation from college. Subjects were first exposed to a message containing either pro or con arguments on the exam issue. Students were then presented with a second message that always argued in the opposite direction of the first. The topic was introduced as either being considered at the students' university for implementation the next year (high personal relevance) or being considered at a distant university for some time in the future (low personal relevance).

Method

Subjects and Design. Fifty undergraduate students participated for extra credit in their introductory marketing course. Subjects were run in one classroom session. A random ordering of experimental packets assigned students to the 2 (message order: pro/con, con/pro) X 2 (relevance: high, low) factorial design. Subjects were first exposed to a message containing either pro or con arguments on the exam issue. Students were then presented with a second message that always argued in the opposite direction of the first. The topic was introduced as either being considered at the students' university for implementation the next year (high personal relevance) or being considered at a distant university for some time in the future (low personal relevance).

Procedure. An introductory sheet informed students that they would be reading excerpts from various publications and that, after reading the articles, they would be asked to evaluate each on a variety of dimensions, including writing style, use of grammar, and ease of reading. Students were presented with two opposing messages on the issue of instituting senior comprehensive exams as a prerequisite for graduation from college. The pro and con senior comprehensive exam messages were developed from messages used in past research (e.g., Petty et al. 1981). Pretests showed that the pro and con messages presented individually were equally strong (i.e., produced approximately the same proportion of thoughts in support of the advocated position when pretest subjects were explicitly instructed to think carefully about the arguments contained in the messages; see Petty and Cacioppo 1986). The pro message contained five strong arguments in support of senior comprehensive exams and the con message contained five strong arguments against the exams. The messages were equal in length (approximately 420 words each).

Independent Variables. Half the subjects received messages in a pro/con order and half in a con/pro order. An introductory statement at the top of the page immediately preceding the first message informed half of the subjects that the institution of comprehensive exams was being discussed by the new president of their university for possible implementation beginning the following spring (high personal relevance). The other half of the subjects were informed that senior comprehensive exams were being considered at a distant university for possible implementation beginning the spring of two school years in the future (low personal relevance).

Dependent Measures. Following the two messages, subjects completed measures assessing their attitudes toward the implementation of the exams. Attitudes were measured on four 11-point semantic differential scales assessing how bad/good, foolish/wise, harmful/beneficial, and negative/positive the students believed institution of the exams would be. Subjects were also asked if instituting the exams would be helpful on a scale from 1 = "not very helpful" to 11 = "very helpful." Three questions assessed the perceived relevance of the exam issue on scales anchored at 1 = "not very important to me," "not personally relevant," and "will not affect me" and 11 = "very important to me," "personally relevant," and "will affect me," respectively.

Cognitive Responses. Subjects next encountered printed instructions directing them to turn to the next page. Subjects were instructed to write down all of the thoughts they could recall going through their mind at the time they read the first message about senior comprehensive exams; seven double-spaced lines were provided, and subjects were asked to take no more than two minutes for the task (though the actual time taken was not monitored). On the middle of the same page, subjects were instructed to perform the same thought listing for the second message.

Recall. Instructions on the bottom third of the page asked subjects to write down all of the arguments they

For example, strong pro exam arguments included that (a) students graduating from schools with comprehensive exams were more likely to be accepted into very good graduate schools, (b) students from institutions with comprehensive exams find better jobs, and (c) starting salaries of students who had taken comprehensive exams were $2,000–$3,000 higher than those of students who had not taken the exams. Strong arguments against the exams included that (a) capturing the benefits of a four-year program on a single standardized exam would be difficult, (b) the expectation of having to take such an exam may stop some students from entering college, and (c) taking an exam at the end of each course should be sufficient.
could recall that were presented in favor of and opposed to the institution of senior comprehensive exams. When all subjects had finished the packet, they returned the materials and were thoroughly debriefed and thanked for their participation.

Results

Relevance Manipulation Check. A composite measure of perceived personal relevance was constructed by averaging responses to the three perceived personal relevance questions (α = .89). This composite was submitted to a 2 (message order) × 2 (personal relevance) ANOVA. There was only a main effect for personal relevance, F(1,46) = 4.38, p < .04, whereby students in the low personal relevance condition viewed the exam issue as less relevant (µ = 5.51) than students in the high-relevance condition (µ = 7.36).

Attitudes. A composite measure of attitude was constructed by averaging the responses to the four semantic differentials along with the question asking subjects how helpful the exams would be (α = .97). This composite measure was submitted to a 2 (message order) × 2 (personal relevance) ANOVA. The analysis revealed only the predicted message order × personal relevance interaction, F(1,46) = 8.89, p < .004; see Figure 1. That is, subjects told that the exams were being considered by their university for the following year (high personal relevance) were more favorable toward the exams after receiving the pro/con message order (µ = 6.01) than after receiving the con/pro order (µ = 3.95; F(1,46) = 4.58, p < .02). We thus find support for Hypothesis 1a. In contrast, subjects who were told that the exams were being considered by a distant university for two years in the future (low personal relevance) were less favorable toward the exams after receiving the pro/con message order (µ = 3.49) than after receiving the con/pro order (µ = 5.58; F(1,46) = 4.33, p < .025).7 We thus find support for Hypothesis 1b.

Cognitive Responses. Cognitive response measures were included in an attempt to discern patterns of thoughts that might characterize message order effects. Thoughts were categorized as favorable, unfavorable, or neutral with regard to the exam topic by two judges unaware of subjects’ relevance condition. In addition, if thoughts in response to the second message were judged to be explicitly attacking the validity of an argument in the message, these thoughts were classified as direct counterarguments. The judges agreed on over 80 percent of the thoughts; disagreements were resolved by discussion.

The favorability of thoughts toward the institution of senior comprehensive exams was indexed by dividing the number of thoughts favorable to the exams by the total number of thoughts generated (collapsed across both messages). Whereas favorability of thoughts was no different for low-relevance subjects receiving the pro/con and con/pro message orders (µ = .180 and .182, respectively), there was a tendency in the high-relevance conditions for message order to affect thoughts in the expected direction. That is, high-relevance subjects who received the pro/con order reported proportionally more favorable thoughts toward senior comprehensive exams (µ = .246) than high-relevance subjects who received the con/pro order (µ = .165). Unfortunately, neither the interaction nor the simple effects approached statistical significance.8

The second potential indicator of active processes fostered by high personal relevance fared a bit better. That is, subjects in the high-relevance condition produced a higher number of direct counterarguments of information in the second message (µ = .65) than subjects in the low-relevance condition (µ = .33; F(1,46) = 2.05, p < .08; supportive of Hypothesis 2b). Consistent with the use of strong arguments in our pro and con messages, there was no difference in counterarguing

7Because we have strong a priori expectations regarding when primacy as opposed to recency effects should occur, probability levels for the simple effects of message order within relevance conditions are one-tailed for both studies. This is the case for cognitive responses and counterarguments as well.

8Although we clearly expected differences in counterarguing of the second message (see Hypothesis 2b), we did not have any firm expectations regarding favorable evaluations of the content of the second message. That is, although we would expect relatively few support arguments in response to the second message for high-relevance participants, this does not necessitate any difference in support arguments between high- and low-relevance conditions. This is because we do not expect low-relevance participants to actively process message content and thus do not expect them to generate many support arguments. Indeed, the mean number of favorable thoughts generated in response to the second message did not differ for subjects in high- (µ = 1.19) and low- (µ = 1.46) relevance conditions.
Argument Recall. No main effects or interactions were observed on the number of arguments recalled. On average, participants in the low-relevance condition recalled an average of 2.97 arguments in favor of the exams and 2.54 arguments against the exams. Participants in the high-relevance conditions recalled an average of 2.81 arguments in favor of the exams and 2.90 arguments against the exams. Within each relevance condition, there was no effect of order on recall.

Relationship of Recall and Attitude. Research on the relationship of verbatim recall and judgment has consistently shown that, when individuals engage in little on-line evaluation, the correlation between recall and attitude is significant and positive (Haugtvedt and Petty 1992; Mackie and Asuncion 1990). Based on our conceptualization of the processes underlying recency effects and previous work on recall-judgments relationships, in Hypothesis 2c we hypothesized that final attitudes under low-elaboration conditions would be positively associated with recall of second message arguments to a greater extent than final attitudes under high-elaboration conditions. To test this hypothesis, recall of the second message was correlated with final judgments after collapsing across levels of message presentation order. The number of arguments recalled against the exams was coded as a negative number (to ensure that reliance on argument recall is indexed by a positive recall-attitude correlation).

Favorability of attitudes under low-relevance conditions was positively related to argument recall ($r = .48$, $p < .01$), whereas final judgments under high-relevance conditions were not significantly related to final judgments ($r = -.33$, $p < .10$). If anything, it appears that greater recall of second message arguments under high-relevance conditions is negatively correlated with final judgments—consistent with the greater tendency of high-relevance subjects to counterargue the second message. Such processes would make the information memorable, but the fact that it was successfully counterargued would lead to its negative relationship with the final judgment. Consistent with this possibility, when a partial correlation between attitude and recall was computed (controlling for counterarguments to the second message), the negative correlation becomes nonsignificant ($r = -.05$, NS), and the positive correlation in the low-relevance condition remains unchanged and significant. We thus find support for Hypothesis 2c.

Discussion

Results of experiment 1 provide the first direct evidence in support of the attitude strength interpretation of past research on message order effects in persuasion. A manipulation of participant motivation determined whether the first or second message had a greater impact on attitudes. When personal relevance of the message topic was high (i.e., motivation to process was high), a significant primacy effect was obtained. When relevance of the message topic was low (i.e., motivation to process was low), a significant recency effect was obtained. There was also a nonsignificant tendency for message order to influence thought content more under high- than under low-relevance conditions. Unfortunately, conditions in this study were not particularly conducive to adequate collection of cognitive responses. For instance, because subjects were all seated in a large classroom and were likely finishing at different times, subjects who finished early may have distracted subjects who were still reporting their cognitive responses. In addition, the small number of subjects in the current study made it less likely that differences could be found.

Although the senior exam message has proven to be an extremely useful topic in persuasion research, there are a number of important differences between this topic and more typical consumer-relevant messages. One of these differences is the fact that the message topic is fairly unique, and students may not have given much thought to the topic prior to the experimental study. Thus, it is somewhat similar to a new product introduction. Because of this, the comprehensive exam issue might be one that is particularly sensitive to manipulations of personal relevance.

In order to insure that these results are not only obtained with topics that might be characterized as low in familiarity, we conducted a second experiment using a topic more familiar to our subjects: nuclear power. Because there are a number of nuclear power plants in the subjects' home state and because both pro- and antinuclear power positions have received attention in the local and national press (e.g., Colombus Dispatch 1990a, 1990b) and in advertisements (Greenwald 1991), and because order effects have been hypothesized to be more likely for unfamiliar topics (Hovland 1957), use of the nuclear power topic was seen as a relatively strong test of our hypotheses.

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9 Using different indices of the favorability of cognitive responses and of counterargument generation showed similar patterns of results. That is, the number of favorable cognitive responses tends to be greater following pro/con as opposed to con/pro message order ($X_s = 1.79$ and $.75$, respectively) for high-relevance participants. For low-relevance participants, there is little difference in the number of favorable cognitive thoughts in response to pro/con versus con/pro message orders ($X_s = .92$ and .82, respectively). The number of valenced thoughts generated during the thought-listing period tended to be greater under high- ($X = 4.85$) as opposed to low- ($X = 3.87$) elaboration conditions. Also, the percentage of message-related thoughts in response to the second message that were direct counterarguments tended to be higher for high- as opposed to low-relevance subjects ($X_s = 23$ percent and 17 percent, respectively). None of the patterns reached significance. However, consistent with the idea that final attitudes would be based more on elaborations of initial message content under high- than under low-relevance conditions, the number of favorable thoughts generated in response to the first message correlated significantly with attitude under high- ($r = .501$, $p < .01$) but not under low-relevance conditions ($r = .086$, NS).
EXPERIMENT 2

Undergraduate marketing students were first exposed to a message presenting either pro or con arguments and then encountered a second message that always argued in the opposite direction. In order to provide a more controlled environment for experiment 2, participation took place in individual cubicles, providing visual and acoustical isolation.

Method

Subjects and Design. One hundred thirty-seven introductory marketing students participated in the experiment for extra course credit. Subjects were run in groups of two to four. Each subject was randomly assigned to the 2 (message order: pro/con, con/pro) × 2 (personal relevance: high, low) between-subjects design.

Messages. Pro and con versions of the nuclear power messages were developed by combining arguments generated by marketing students with information from the popular press (e.g., Time). Subsequent pretests with additional subjects who received only the pro or con message showed that the pro and con messages were equally strong (that is, thinking about the material in the messages produced similar numbers of thoughts in support of the advocated positions). The pro message contained seven strong arguments in support of nuclear power plants, and the con message contained seven strong arguments against nuclear power plants.10 The pro and con nuclear power messages contained approximately 300 words each.

Procedure. Students were seated in private cubicles containing an Apple Macintosh IIx computer and 13-inch color monitor. All instructions, messages, and dependent measures were presented using the application software HyperCard. An introductory screen informed students that they would be reading excerpts from various publications and that, after reading a series of articles, they would be asked to evaluate each on a variety of dimensions, including writing style, use of grammar, and ease of reading. They were asked to read the excerpts as they would any newspaper or magazine article. Subjects first read a message on the topic of recycling; the next two messages regarded nuclear power plants.

All dependent measures were presented after subjects had read all three messages.

Independent Variables. Half of the subjects received the nuclear power messages in the pro/con order and half in the con/pro order. Prior to each message, subjects were informed of the upcoming topic; for the recycling message and the first nuclear power message subjects were given background information. For example, they were informed that the first message was on the topic of recycling—a topic of current interest in many parts of the country. Low personal relevance of the nuclear energy topic was created by informing half of the subjects that recently released Federal Energy Program documents proposed that new nuclear power plants be built in distant states (i.e., Texas, Arizona, and New Mexico). In the high-relevance condition, the subjects’ own and nearby states (i.e., Ohio, Michigan, and Pennsylvania) were listed instead. This manipulation was validated in a pretest with students from the same course.11 Students in the pretest were ineligible for the final study.

Dependent Measures. The first few questions focused on recycling. The remainder of the questions were attitude questions regarding the nuclear power issue. Questions were answered by clicking the “mouse” inside a long narrow box (approximately 5 inches by .25 inch) at the bottom of the computer screen. Scales were anchored by descriptions typed below the box at each end. Although the box was not labeled with numerical values, the computer recorded each response as having occurred within one of 11 equally spaced sections of the box. Thus, each response was assigned a scale value by the computer.

Each of the attitude questions began with the statement “In general, I think building more nuclear power plants is . . .” Four semantic differentials were formed with the anchors bad/good, unwise/wise, harmful/beneficial, and negative/positive. After the computer-based questionnaire, an experimenter handed each subject a sheet containing cognitive response and recall protocols. The thought-listing and recall instructions were identical to those used in experiment 1. After subjects completed the dependent measures, they were debriefed, thanked, and dismissed.

Pro arguments included (a) nuclear plants would replace fossil fuel plants that produce carbon dioxide, thus lessening the greenhouse effect, (b) nuclear plants are prevalent in other countries, such as France, which produces 70 percent of its energy from nuclear plants, (c) U.S. nuclear plants have operated for 20 years without serious incidents, and (d) current standards for safety are very high. Arguments against additional nuclear plants included: (a) problems with the technology and the lack of safe disposal of wastes make nuclear an unsafe choice, (b) there is no guarantee that a disposal site will remain unchanged or that groundwater will not be contaminated, (c) the current safety tolerances, though they sound impressive, are only arbitrary, and (d) nuclear proponents often fail to consider an alternative to continually increasing power supplies—the wise use and conservation of existing resources.

10 Pro arguments included (a) nuclear plants would replace fossil fuel plants that produce carbon dioxide, thus lessening the greenhouse effect, (b) nuclear plants are prevalent in other countries, such as France, which produces 70 percent of its energy from nuclear plants, (c) U.S. nuclear plants have operated for 20 years without serious incidents, and (d) current standards for safety are very high. Arguments against additional nuclear plants included: (a) problems with the technology and the lack of safe disposal of wastes make nuclear an unsafe choice, (b) there is no guarantee that a disposal site will remain unchanged or that groundwater will not be contaminated, (c) the current safety tolerances, though they sound impressive, are only arbitrary, and (d) nuclear proponents often fail to consider an alternative to continually increasing power supplies—the wise use and conservation of existing resources.

11 Subjects in this pretest were given information about the nuclear power topic that was identical to that presented to subjects in the study to follow. Immediately following receipt of this information, subjects were asked to what extent they believed that the issue of building more nuclear power plants could affect them personally, was important to them personally, and was relevant to them personally, on scales anchored at 1 = “not at all,” “not at all important,” and “not at all relevant” and 5 = “very much,” “very important,” and “very relevant,” respectively. These items were combined to form a relevance index (α = .87). Subjects exposed to the high-relevance manipulation felt the issue was more relevant to them (X̄ = 4.20) than subjects exposed to the low-relevance manipulation (X̄ = 3.24); F(1,57) = 24.27, p < .0001.
Results

**Attitudes.** A composite measure of attitude was constructed by averaging responses to the four attitude items (α = .94). The attitude index was submitted to a 2 (message order) × 2 (personal relevance) ANOVA. Replicating experiment 1, the only significant effect was the predicted message order × personal relevance interaction, $F(1,133) = 6.36, p < .001$; see Figure 2. As expected, subjects in the high-relevance condition exposed to the pro/con message order were significantly more favorable toward nuclear power ($\bar{X} = 7.94$) than were high-relevance subjects exposed to the con/pro message order ($\bar{X} = 5.96; F(1,133) = 12.21, p < .001$). Also as expected, subjects exposed to the messages under conditions of low relevance were less favorable toward nuclear power after receiving the pro/con message order ($\bar{X} = 5.80$) than after receiving the con/pro message order ($\bar{X} = 7.11; F(1,133) = 5.49, p < .01$).

**Cognitive Responses.** As in experiment 1, thoughts were categorized as favorable, unfavorable, or neutral with regard to the nuclear power topic by two judges unaware of subjects' relevance conditions. Also, thoughts that were judged to be explicitly attacking the validity of an argument in the second message were classified as direct counterarguments. The judges agreed on over 86 percent of the cases. Disagreements were resolved by discussion.

The favorability of thoughts toward nuclear power plants was indexed by dividing the total number of thoughts favorable to the issue by the total number of thoughts (collapsed across both messages). The pattern of thought favorability was nearly identical to that of experiment 1. The only overall effect on favorability of thoughts was a message order × personal relevance interaction, $F(1,133) = 4.07, p < .05$. The proportion of favorable thoughts for subjects receiving the pro/con ($\bar{X} = .22$) and the con/pro message orders ($\bar{X} = .254$) was nearly identical for the low-relevance conditions ($F < 1$). In contrast, high-relevance subjects in the pro/con order condition were significantly more favorable toward nuclear power ($\bar{X} = .332$) than high-relevance subjects in the con/pro order condition ($\bar{X} = .209; F(1,133) = 5.03, p < .02$).

In addition, analyses of the extent to which subjects argued against statements in the second message showed only the predicted effect of personal relevance, $F(1,133) = 6.18, p < .007$. That is, regardless of order, subjects in the high-relevance condition exhibited a higher number of explicit counterarguments to information in the second message ($\bar{X} = .418$) than did subjects in the low-relevance condition ($\bar{X} = .114$). Consistent with the

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12As in experiment 1, we did not have any firm expectations regarding favorable evaluations of the content of the second message (see n. 8 above). Similar to experiment 1, the mean number of favorable thoughts generated in response to the second message did not differ for subjects in high- ($\bar{X} = 1.15$) and low- ($\bar{X} = 1.34$) relevance conditions.

13Using different indices of the favorability of cognitive responses and of counterargumentation showed similar patterns of results and statistical significance. That is, the number of favorable cognitive responses were greater following pro/con as opposed to con/pro message order ($\bar{X} = 2.67$ and $1.47$, respectively) for high-relevance participants. For low-relevance participants, there is little difference in the number of favorable cognitive thoughts in response to pro/con versus con/pro message orders ($\bar{X} = 1.94$ and $1.66$, respectively). The percentage of message-related thoughts in response to the second message that were direct counterarguments were higher for high-as opposed to low-relevance subjects ($\bar{X} = 13.2$ percent and $4.67$ percent, respectively). As in experiment 1, consistent with the idea that final attitudes would be based more on elaborations of initial message content under high- than under low-relevance conditions, the number of favorable thoughts generated in response to the first message correlated significantly under high- ($r = .30, p < .001$) but not under low-relevance conditions ($r = -.007$, NS). High-relevance subjects also tended to generate a greater number of valenced thoughts ($\bar{X} = 4.38$) than low-relevance subjects ($\bar{X} = 3.81$), although this was not significant. To the extent that the manipulation of message order influences not only attitudes but also cognitive responses, however, a thoughtful process becomes a more plausible mediator of those order effects. This would be the case regardless of the total number of valenced thoughts generated in a thought-listing protocol (see Petty and Cacioppo [1986, pp. 38–39] for a more thorough discussion of inferences regarding use of thought-listings as assessments of amount of message processing).
guments against nuclear power. Within each relevance condition, there was no effect of order on recall.

**Relationship of Argument Recall and Attitude.** Correlations between favorability of attitudes and the number of arguments recalled from the second message were computed. Replicating experiment 1, under conditions of low relevance, recall of second message arguments was positively related to final attitudes \( (r = .34, p < .004) \). In contrast, a negative correlation was observed in the high-relevance condition \( (r = - .29, p < .02) \). As in experiment 1, this might be the case because subjects in the high-relevance conditions engaged in counterargumentation of the second message. Consistent with this possibility, when a partial correlation between attitude and recall was computed (controlling for counterarguments of the second message), the negative correlation becomes nonsignificant \( (r = -.19, NS) \) and the positive correlation in the low-relevance condition remains unchanged and significant.

**Discussion**

The results of experiment 2 provided strong convergent support for our hypothesized explanation of past studies of message order effects. Replicating experiment 1, we found a significant primacy effect when message recipients encountered the materials under conditions of high personal relevance and a significant recency effect when message recipients encountered the materials under conditions of low personal relevance.

In addition, results provided convergent evidence regarding the nature of processes that led to primacy and recency effects in our experiments. In both experiments, message order tended to influence the favorability of cognitive responses only for subjects who read the materials under conditions of high personal relevance. In addition, high-relevance subjects tended to counterargue the second message more than low-relevance subjects in both studies. This difference in counterarguing did not occur in response to the first message, however, suggesting that counterarguments were elicited in defense of relatively strong attitudes. Finally, in both experiments, the number of arguments recalled from the second message was positively related to the positivity of the final attitude for subjects in low-elaboration conditions, but not for subjects in high-elaboration conditions. Thus, support for each of the formal hypotheses was obtained.

**GENERAL DISCUSSION**

Reviews of the message order literature (e.g., Rosnow 1966; Rosnow and Robinson 1967; our introduction section) have noted that past studies often did not have clear a priori predictions. In addition, most past studies finding order effects confounded either subject or topic factors with the conceptual factors of interest (e.g., classifying topic interest through participant self-report, or varying controversy through presentation of different topics) and typically did not find primacy and recency effects in the same study. A coherent picture of the message order literature emerged when past order effects were considered within an attitude strength framework, however. By relating conditions in past studies of message order to recent work on message processing in persuasion, we found that past message order effects could be usefully organized by our model. Importantly, two new experiments in which message recipients' motivation to elaborate message content was directly manipulated supported our views.

When participants were motivated to elaborate on message content, primacy effects occurred. When participants were unmotivated, recency effects occurred. Thus, we found and replicated primary and recency effects when participants were randomly assigned to high- versus low-elaboration conditions. In addition to providing a theoretical position that appears capable of organizing past studies on opposing messages presented close in time, results of the present studies also provide empirical support for the attitude strength perspective's a priori predictions of when first messages or second messages should have the most impact.

**Future Research**

**Persistence of Order Effects.** Although the research reported here is an important first step in understanding effects of message order, additional research can help us better understand the processes underlying these effects. For example, because strong attitudes are more likely to be the result of effortful as opposed to non-effortful processing of topic-relevant information (Haugtvedt and Petty 1992; Petty et al. 1994), message order effects that occur via effortful means should tend to be more persistent than order effects that are relatively non-effortful. Thus, from the current perspective, primacy effects due to effortful processing of early information (and counterarguing of later information) should tend to persist longer than recency effects which result from non-effortful reliance on the number of arguments that come easily to mind on a topic. An important next step in order effects research, therefore, will be examination of the temporal persistence of attitudes formed or changed under various message order conditions.

**Different Processes Leading to Order Effects.** Future research should also address conditions under which effortful as opposed to noneffortful processes may be responsible for primacy and recency effects. Although we have argued that primacy effects in current and past message order studies are likely the result of high levels of message elaboration, we do not mean to imply that other (yet unexplored) factors might not also affect the existence of message order effects and the types of processes that might be responsible for those effects. For example, some conditions (such as those that foster "epistemic freezing"; Kruglanski and Freund 1983) may exist where noneffortful processes could result in
effects of message order may be due to factors other than primacy. Thus, if opposing messages were presented under specific conditions such as time pressure (Mayseless and Kruglanski 1987) or were given to individuals who score high in dispositional “need for closure” (Webster and Kruglanski 1992), primacy effects due to ignorance of later information might occur. Thus, some effects of message order may be due to factors other than attitude strength per se.

In such a case, however, the attitude strength perspective guided by the Elaboration Likelihood Model (Petty and Cacioppo 1986) would predict that the primacy effect brought about by ignoring later information should decay faster than primacy effects brought about by a high level of elaboration. Similarly, there may be conditions under which recency effects could be made to endure. For instance, the low-elaboration subjects in our studies could be induced to evaluate the arguments they recall. If these subjects engage in effortful evaluation of these arguments, then the observed recency effect might persist to a relatively high degree. If these subjects were disrupted from doing such evaluation of recalled arguments, however, the recency effects would likely not persist. Thus, another important goal of future research should be to delineate the conditions under which effortful versus noneffortful processes are more likely and to explore the differential consequences of these processes.

Such research may offer unique insights into the creation of especially durable attitudes through the strategic use of variables used to increase processing of initial and counterpersuasive messages. Such processing may serve to strengthen and reinvigorate existing attitudes (see Hautveldt, Leavitt, and Schneier 1993). Future research might also profitably apply alternative manipulations and classifications of motivation to process information such as individual versus group responsibility for message evaluation (Petty et al. 1977), self-referencing of message content (Burnkrant and Unnava 1989), and identifying message recipients as being high versus low in need for cognition (Hautveldt, Petty, and Cacioppo 1992). In addition, while we suggest that an understanding of the extent of elaboration may be a useful way to gain understanding of some message order effects, it is important to note that, for practical and theoretical reasons, the influence of various individual persuasion factors should be systematically explored in future research. That is, understanding that elaboration plays an important role does not obviate the usefulness or importance of identifying a wide range of factors and processes.

Order Effects in Two-sided Advertising Settings. Another direction for future research is to understand the extent to which the processes identified in the current studies relate to processes operating in common advertising contexts. For example, consumer researchers have investigated the effectiveness of one-sided versus two-sided advertisements in attempts to understand when a particular format would be most effective (e.g., Etgar and Goodwin 1982; Pechmann 1992; Swinyard 1981). In this research, two-sided ads have been shown to be more effective to the extent that the “negative” (i.e., con-product) information allows one to perceive the product as having more of the “positive” attribute (i.e., pro-product) qualities (according to “correlational” inferences; see Pechmann 1992) and to the extent that the two-sided nature of the ad increases perceptions of source credibility (Pechmann 1992). Although this research has not varied the order of pro versus con information, the processes found to underlie primacy versus recency effects in message order might also operate in two-sided ads. That is, if conditions encourage high levels of elaboration of the ad, enhanced counterargumentation of information late in the ad may lead to more favorable views of the product when the information is presented in a pro/con rather than a con/pro order. If conditions encourage low levels of elaboration, however, then information presented late in the ad might influence product attitudes through memory-based processes that encourage recency effects (i.e., more favorable product views following a con/pro rather than a pro/con order).

One potentially major difference between the pro and con information in the two-sided ads, studied by Pechmann (1992) and others, and the opposing messages used in message order research, is that the opposing messages are from different sources. A two-sided ad typically contains information from a single source. Therefore, if two distinct sources of opposing information are necessary for the primacy/recency effects we observed, then these effects may not operate in the same way for two-sided advertising appeals.

Even if two distinct sources of information are necessary for the order effects observed in the current research, advertisers might be able to create ads that benefit from both sets of processes (i.e., processes associated with two-sided ad effectiveness [Pechmann 1992] and processes associated with primacy/recency effects of opposing messages). For example, an advertiser might utilize different persons (e.g., two different perspectives provided in a “person on the street” scenario) in order to make information that forms the two sides of an ad appear to be from distinct message sources. By doing this, the advertiser might capitalize on primacy processes that enhance perceptions of the product (e.g., if the ad is presented in a way that encourages high levels of initial elaboration, increased counterarguing of the opposing information might maximize favorability of product perceptions). If the advertiser were then to reveal that both sets of information were sponsored by the same company at the end of the ad (i.e., at the end of the “negative” information), enhanced perceptions of source credibility (i.e., the “correspondent inferences” studied by Pechmann [1992]) may further enhance the effectiveness of the two-sided ad.

Limitations

It is important to point out some limiting conditions for the kind of phenomena described in the present ar-
ticle. First, our perspective suggests that effects of message order are most likely when some attitude change can be achieved from the exposure to the respective persuasive messages. Thus, for issues on which individuals hold extremely strong initial attitudes (and thus, for which attitude change is unlikely), message order may not affect final judgment. The fact that we found changes for an issue that has received considerable media attention (i.e., nuclear power) suggests that message order effects can occur for a variety of issues that people face in their daily lives.

Second, in our research, attitudes and process data were collected only after exposure to both messages. Although collection of attitude data and/or process data immediately after exposure to an initial message would be interesting and useful, experiences described in related research suggest that collection of such data artificially increases the level of elaboration beyond what would naturally occur (see Haugtvedt and Petty 1992), making it very difficult to test the influence of the intended processing manipulation alone. Thus, a potential limitation of our current research is a lack of measures on the availability of information supportive of the attitude after exposure to the initial message alone. A challenge for future research, therefore, will be the development of methods to obtain these measures without artificially influencing the nature of the attitude. From a practical perspective, however, it should also be noted that assessment of attitudes or thoughts only after exposure to both messages is not an atypical consumer situation. That is, if both pro and con information is available, consumers may often encounter both kinds of information before being asked to give their opinion or make a choice.

Finally, in the current research, cognitive responses were collected in the order in which the messages were presented. Because our overall indices of cognitive responses were collapsed across messages, this should not have markedly influenced those results. Even so, future research might benefit from having participants list thoughts without having them attempt to decide which message engendered each thought.

Importantly, our predictions may not hold in every setting involving opposing messages from two different sources. For example, political candidates may often want to have the last word in a debate. We suspect that one of the reasons for this is that they can adapt their comments to fit what has occurred during the debate. That is, they can remind potential voters of their strengths and of their opponent’s weaknesses. In addition, speaking last keeps one’s opponent from being able to rebut what one says during that portion of the debate. Sometimes, however, one cannot engage in online change of the text of one’s message to directly rebut an opponent’s statements (e.g., if the text must be canned ahead of time—as is the case in print, radio, or television advertising). In such cases candidates might want audiences that are highly involved to think carefully and form thoughtful opinions based on a presentation of their views before rather than after the views of their opponents (consistent with the attitude strength perspective). Of course, if candidates view the electorate as largely unable or unmotivated to process the information in their speeches, then our perspective would also predict that they would want to present their views last in a debate.

Importance of Multiple-Message Research

This line of research may also have important implications for marketing practitioners, public relations firms, and even courtroom lawyers. That marketers may have control over the sequence in which consumers are exposed to information is a fact that is recently being recognized. For example, companies might make special efforts to purchase display space in exhibition halls that is likely to be seen before competitors’ space if they anticipate high-elaboration conditions. Publications like Advertising Age often contain discussions about how one firm hopes to attract consumers by being the first to introduce new products, attributes, or features. Knowledge of future competitor actions is also becoming more common. Research and theory such as that outlined in the present article could be used to help marketers decide how to best allocate their resources under certain conditions—or even when it may be important to create certain kinds of conditions prior to other actions. For example, if a firm anticipates attacks from competitors or the media, it can focus on attempts to get consumers to think extensively about the strong arguments in support of their position before the attack appears.

Even if exposure sequence is beyond the immediate control of the marketer, the amount and kind of processing a consumer can be induced to engage in may be under the control of the marketer in many instances. This may mean raising the involvement of the consumer at the time of message exposure or using other techniques that increase message elaboration. It may also mean increasing the amount of time a consumer is exposed to a message or is given to “consolidate” their attitudes after exposure to the message (e.g., the use of “reflection time,” as in Haugtvedt and Strathman [1990]).

Conclusion

In a recent comment on the message order effect literature, Eagly and Chaiken (1993, p. 300) stated: “Given the complexity of the two-opposing-messages paradigm, and the numerous variables and processes that have been shown to influence persuasion in a standard one-message paradigm, a firm understanding of order effects in persuasion seems unlikely in the near future.” Although many questions remain surrounding message order effects, the research and perspectives offered in this article provide a first step in organizing and understanding this important area of research. We
hope that the current work also encourages marketers and psychologists to explore multiple message contexts and the relative durability of attitudes formed or changed through such exposures. Although this research presents unique challenges, attempts to increase understanding of these contexts may lead to important theoretical and practical advances.

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