The Impact of Attitude Accessibility on Elaboration of Persuasive Messages

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Two experiments were conducted to examine the impact of attitude accessibility on elaboration of persuasive appeals. In Experiment 1, the accessibility of attitudes toward nuclear power was measured using response latencies. Participants were then presented with a persuasive message that contained either strong or weak arguments against the use of nuclear power. Argument quality had a greater impact on persuasion when attitudes were high in accessibility than when they were low in accessibility. In Experiment 2, the accessibility of attitudes toward vegetarianism was experimentally manipulated by varying the number of times participants expressed their attitudes toward vegetarianism. Participants then read a pro-vegetarianism persuasive message that contained either strong or weak arguments. Again, argument quality had a greater impact on persuasion when accessibility was high than when it was low. Taken together, both experiments suggest that increased message topic attitude accessibility leads to enhanced elaboration of persuasive messages on those topics.

In recent years, social psychologists have come to increasingly recognize that attitudes differ in their underlying strength. Some attitudes possess the defining features of strong attitudes in that they are persistent over time, resistant to change, influence information processing and judgment, and guide behavior (see Krosnick & Petty, 1995). Other attitudes are weaker in that they lack one or more of these features. Social psychologists have identified a number of different dimensions of attitudes that distinguish the underlying strength of an attitude (for reviews, see Petty & Krosnick, 1995). Of these many dimensions, attitude accessibility has been perhaps the most influential and widely studied.

Attitude accessibility is typically defined as the likelihood that an attitude will be automatically activated from memory upon merely encountering the attitude object (e.g., Fazio, 1986, 1989, 1995). Accessibility has been hypothesized to reflect the strength of association in memory between the representation of the attitude object and the evaluation of the object along a dimension ranging from positive to negative. Consistent with this theoretical perspective, a substantial body of research has accumulated demonstrating a number of consequences of accessibility that suggest that attitudes relatively high in accessibility are stronger than attitudes relatively low in accessibility (for a recent review, see Fazio, 1995). For example, highly accessible attitudes

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have been found to be more predictive of a wide variety of behaviors such as solving puzzles (Fazio, Chen, McDonel, & Sherman, 1982), voting (Bassili, 1993, 1995; Fazio & Williams, 1986), and selection of consumer products (Berger & Mitchell, 1989; Fazio, Powell, & Williams, 1989) than are attitudes low in accessibility. Attitudes high in accessibility have also been found to exert a stronger biasing influence on the processing of information than have attitudes low in accessibility (Fazio & Williams, 1986; Houston & Fazio, 1989). Similarly, increased accessibility has been found to be associated with greater stability of attitudes over time (Grant, Button, & Noseworthy, 1994; Hodges & Wilson, 1994). Finally, research has suggested that accessible attitudes have a greater impact on the ease and quality of decisions involving preferences than do less accessible attitudes (Blascovich et al., 1993; Fazio, 1992; Fazio, Blascovich, & Driscoll, 1992).

Attitude Accessibility and Persuasion

Previous research. Given the extensive research that has been conducted exploring the many consequences of attitude accessibility, it is surprising that little research has examined the impact of the accessibility of attitudes toward a message topic (i.e., toward an attitude object) on persuasion. In one relevant set of studies conducted using telephone surveys, Bassili and colleagues (Bassili, 1996; Bassili & Fletcher, 1991) measured participants' attitudes and response latencies on a topic (e.g., employment quotas, pornography, hateful speech) and then presented them with a single-sentence counterattitudinal argument. Respondents were then provided with the opportunity to change their position on the issue in light of the counterattitudinal argument. Analyses revealed that people who shifted their reported attitudes when confronted with the counterattitudinal argument had attitudes that were lower in accessibility than people who did not shift. Thus, these studies indicated that people's highly accessible attitudes were more resistant to persuasion than their less accessible attitudes.

Possible roles of attitude accessibility in persuasion. Thus, despite more than 15 years of research, remarkably little is known about the impact of attitude accessibility on persuasion processes. However, existing theories of persuasion provide a basis for generating some reasonable predictions concerning how accessibility might influence persuasion. One theory that seems useful in this regard is the Elaboration Likelihood Model (ELM) of persuasion (Petty & Cacioppo, 1981, 1986a, 1986b). The ELM postulates that persuasion processes can be conceptualized as occurring along an elaboration continuum (for a related theoretical perspective, the Heuristic/Systematic Model, see Chaiken, 1987; Chaiken, Liberman, & Eagly, 1989). When motivation and ability to process a persuasive message are relatively high, persuasion is more likely to occur as a function of relatively careful scrutiny and consideration of information relevant to the central merits of the advocacy. In contrast, when motivation and/or ability to process the message are relatively low, persuasion is more likely to occur as a result of simple inferences or associations based on peripheral cues in the persuasion context (e.g., accepting the advocacy because the message source is credible) rather than careful scrutiny of issue-relevant information.

The ELM holds that depending on the level of elaboration present, variables can potentially serve in one or more of four different roles in the persuasion process (see Petty & Cacioppo, 1986a, 1986b; Petty, Priester, & Wegener, 1994; Petty, Wegener, Fabrigar, Priester, & Cacioppo, 1993). First, when situational and/or dispositional factors are present that render motivation and/or ability to elaborate a message as low, variables can influence persuasion by serving as peripheral cues that allow a person to accept or reject a message in the absence of careful scrutiny of the message content. In contexts of this sort, one would expect that accessibility might influence persuasion by regulating the likelihood that a person's prior attitude would serve as a cue to reject or accept the message. For example, if an attitude toward a message topic was highly accessible, it would be likely to come to mind when the person encountered the persuasive message and thereby provide a simple basis of acceptance or rejection depending on the consistency of the advocacy with the person's attitude (cf. Jamieson & Zanna, 1989; Sanbonmatsu & Fazio, 1990). An attitude low in accessibility would be less likely to come to mind and thereby be less likely to serve as a peripheral cue.

The second and third possible roles served by attitude accessibility can occur when situational and/or dispositional factors are present that make motivation and ability to elaborate a message high. In these cases, the ELM states that variables can influence persuasion by serving as arguments (i.e., pieces of information directly relevant to evaluating the attitude object) or by influencing the valence of elaboration (i.e., biasing elaboration to be predominantly positive or negative in nature). It seems unlikely that the mere accessibility of an attitude toward a message topic could serve as an argument in these sorts of high elaboration conditions. However, increased accessibility would increase the likelihood that a prior attitude would come to mind during elaboration of the message and could consequently bias elaboration in an attitude-consistent direction (cf. Houston & Fazio, 1989; Schuette & Fazio, 1995). This biasing effect would be likely to occur except in situations in which contextual

factors (e.g., high fear of invalidity) increase motivation to avoid bias (Schuette & Fazio, 1995) or in cases where the arguments are so clearly strong or weak that distortion is difficult (Chaiken & Maheswaran, 1994). In this article, we focus on yet a fourth possible role that attitude accessibility might serve in persuasion.

Attitude accessibility as a determinant of elaboration. In many situations, it is unlikely that a uniform set of situational and dispositional factors will be present that make likelihood of elaboration either very high or low. That is, in many cases, motivation and/or ability to elaborate a persuasive communication will fall somewhere in the middle range of the elaboration continuum (and message recipients might be unsure how much to effortfully process the persuasive appeal). The ELM predicts that under moderate elaboration conditions, variables can influence persuasion by affecting the extent to which a person elaborates a persuasive appeal. Thus, attitude accessibility might influence the persuasion process in moderate elaboration conditions by affecting the amount of elaboration that takes place.

There are at least two explanations for why one might expect accessibility to influence elaboration. The first explanation is based on the notion that the accessibility of an attitude is a determinant of the extent to which an attitude is perceived as personally important and/or relevant. Roese and Olson (1994) have suggested that increases in accessibility lead to increases in perceived attitude importance because people use their ease of retrieving the attitude from memory as a cue for inferring the importance of the attitude. Accessibility might also be associated with perceptions of importance and relevance because of the orienting function that attitudes serve. Roskos-Ewoldsen and Fazio (1992b) have presented evidence suggesting that one useful function served by attitudes is that they help orient a person to attend to consequential objects in their environment. They argue that attitudes provide assistance in allocating cognitive resources by signaling to a person if an object has either positive or negative hedonic consequences. Because an evaluation of an object is more likely to spontaneously come to mind and thereby signal that the object has hedonic consequences when accessibility is high rather than low, it seems reasonable that highly accessible attitudes should be seen as more important and relevant than less accessible attitudes.

Several empirical investigations are consistent with the notion that accessibility is associated with perceptions of importance and relevance. For example, Krosnick (1989) found that attitude accessibility and attitude importance were correlated positively with one another. In addition, Roese and Olson (1994) obtained evidence suggesting that repeated expression of an attitude led to increases in both attitude accessibility and attitude importance. Their analyses also suggested that the impact of repeated attitude expression on importance was mediated by increases in attitude accessibility. That is, increased accessibility led to increases in perceived importance.

Equally significant, the ELM postulates that perceptions of personal importance and relevance influence the extent to which a person is motivated to devote cognitive resources to thinking about a topic (Petty & Cacioppo, 1979, 1990). Consistent with this, research has shown that importance ratings of products are related to people's interest in reading about the manner in which products are made and the quality of the products (McQuarrie & Munson, 1992; Zaichkowsky, 1985). Perceptions of importance have also been found to be related to people's reports of how often they think about a topic (Herzog, 1993; Krosnick, Boninger, Chuang, Berent, & Carnot, 1993; Richins, Bloch, & McQuarrie, 1992). Similarly, increased importance has been shown to lead to longer viewing time of attitude-relevant advertisements (Celsi & Olson, 1988) and the generation of more message-relevant thoughts (Celsi & Olson, 1988; Howard-Pitney, Borgida, & Omoto, 1986). Finally, and perhaps most convincing, experimental manipulations of personal involvement/relevance have been found to influence the extent to which individuals cognitively elaborate persuasive messages (e.g., Petty & Cacioppo, 1979; Petty, Cacioppo, & Goldman, 1981; White & Harkins, 1994). Thus, it is quite plausible that increases in accessibility could enhance elaboration because of the impact of accessibility on perceptions of importance and relevance.

A second explanation for why attitude accessibility might influence elaboration of persuasive messages relevant to the attitude has to do with the possibility that accessibility could be related to attitude-relevant knowledge. This relationship might take a number of possible forms. One possibility is that increased accessibility is associated with greater *amounts* of attitude-relevant knowledge. Such a relationship is plausible because both constructs are presumed to be in part a function of a common antecedent: frequency of prior exposure to the attitude object. That is, the number of times a person has been exposed to the attitude object is likely to enhance knowledge about the object (see Wood, Rhodes, & Biek, 1995), and the frequency of exposure to the attitude object is also likely to increase attitude accessibility (see Fazio, 1995).

Another form of relation between accessibility and knowledge might involve differences in the *accessibility* of attitude-relevant information rather than differences in the amount of information per se. According to spread-

ing activation models of memory (e.g., Anderson, 1983), each time a piece of information (e.g., an attitude) is activated from memory, activation is likely to spread to information linked to it in memory (e.g., attitude-relevant information) thereby also enhancing the accessibility of this linked information. Thus, because highly accessible attitudes are typically attitudes that have been frequently activated in the past (Fazio, 1995), attitude-relevant information linked to these attitudes is also likely to be highly accessible because of frequent past activation. The greater the accessibility of attitude-relevant information, the more likely that information will spontaneously come to mind when encountering the message and consequently influence elaboration of the message.

Regardless of whether differences in knowledge across levels of accessibility are a function of differences in amount of information or in the accessibility of information, one would expect greater working knowledge at the time of message processing to enhance elaboration. Research by Wood and her colleagues (Wood, 1982; Wood & Kallgren, 1988; Wood, Kallgren, & Preisler, 1985) has provided evidence indicating that increased levels of attitude-relevant information can enhance the ability of people to carefully scrutinize persuasive messages. This suggests that increased attitude accessibility might, by virtue of its relation to attitude-relevant information, facilitate greater elaboration of persuasive messages.

Overview of Experiments

When examined in its entirety, the current state of the literature on attitude accessibility and persuasion is quite puzzling. On one hand, accessibility has been shown to play an important role in a variety of different attitudinal processes. Furthermore, existing theory and research in persuasion provide a clear basis for expecting that the accessibility of an attitude toward a message topic might influence persuasion processes. Yet, remarkably little empirical research has actually investigated if and how the accessibility of one's attitude toward a message topic affects persuasion other than Bassili's (1996; Bassili & Fletcher, 1991) demonstration that accessibility tends to reduce persuasion.

In this article, we attempt to take a first step in addressing this problem. We explore one important potential role that accessibility of attitudes toward the message topic might play in persuasion: the role of accessibility as a determinant of the extent to which people cognitively elaborate persuasive messages. In Experiment 1, we explore this hypothesis by measuring the accessibility of attitudes toward nuclear power and then examining whether the amount of elaboration of a persuasive message against the use of nuclear power is moderated by accessibility. In Experiment 2, we examine the same hypothesis by experimentally manipulating attitude accessibility toward vegetarianism through a manipulation of frequency of attitude expression (see Fazio, 1995).

Based on the logic just described, we predicted that increased accessibility would lead to enhanced elaboration of persuasive appeals. In both experiments, elaboration was assessed by using a manipulation of argument quality (Petty, Wells, & Brock, 1976). Our hypothesis was that differential elaboration as a function of accessibility would manifest itself in both experiments by producing an interaction between accessibility and argument quality. Specifically, we expected that the enhanced persuasive impact of strong arguments relative to weak arguments would be greater when attitude accessibility was high compared to when it was low. This should occur because people with attitudes low in accessibility engage in relatively little elaboration of the persuasive message and thus are only modestly influenced by the strength of the arguments in the message. In contrast, participants with highly accessible attitudes should engage in greater elaboration of the message and thus be more influenced by the strength of the arguments than participants with attitudes low in accessibility (see Petty & Cacioppo, 1986b; Petty et al., 1993, for additional explication of argument quality).

Importantly, we expected that increasing accessibility would be associated with a greater impact of argument quality on postmessage attitudes regardless of whether the message was proattitudinal or counterattitudinal. This expectation was based on the fact that theory and empirical research on the likely mechanisms underlying attitude accessibility's influence on amount of elaboration provided no clear basis to expect that these processes should only affect elaboration when attitude-relevant information was either proattitudinal or counterattitudinal. That is, there was no compelling theoretical or empirical reason to expect that increasing attitude importance or attitude-relevant knowledge would only facilitate elaboration when the message was proattitudinal or counterattitudinal. Additionally, past ELM research exploring other variables found to influence the amount of elaboration has demonstrated that such variables influence the impact of argument quality on postmessage attitudes regardless of whether the message is proattitudinal or counterattitudinal. For example, research has shown that increasing the level of distraction leads to reduced effects of argument quality both when the message is proattitudinal and when it is counterattitudinal (Petty et al., 1976). Subsequent research has shown that other situations predicted to enhance elaboration were associated with increased argument quality effects regardless of whether the message was proattitu-

dinal or counterattitudinal (for a recent example, see Wegener, Petty, & Smith, 1995).[1]

EXPERIMENT 1

Method

Participants. Participants were 141 undergraduate students enrolled in either an introductory psychology course or an introductory marketing course. Students enrolled in the psychology course took part in the experiment in partial fulfillment of course requirements. Students enrolled in the marketing course participated in return for extra credit in their course.

Procedure. The study was a 3 (attitude accessibility: high vs. moderate vs. low) × 2 (argument quality: strong vs. weak) factorial design. Sessions were conducted in groups ranging from 1 to 4 people. Participants were told that they were engaged in a study assessing the "readability" of different samples of writing and that the purpose of the study was to examine the validity of readability indices in college student populations.

Before reading the writing sample, participants were told that they would need to answer a few questions on the computer concerning their opinions on several issues. Participants began by reading a set of instructions presented on the computer screen. The instructions stated that they would be presented with a series of issues about which they would be asked to express their opinions. They were told that each issue would be presented on the screen along with a response option reflecting a negative opinion and a response option reflecting a positive opinion. They were told that if they wished to select the negative option (i.e., bad, harmful, negative), they should press the key labeled "negative." If they wished to select the positive option (i.e., good, beneficial, positive), they should press the key labeled "positive." They were instructed that while answering the questions, they should keep their index fingers just above the two response keys (i.e., the q and p keys) and they should work as quickly and accurately as possible. Participants were presented with 12 attitude questions—3 questions about use of nuclear power plants and 3 questions about each of three filler issues. This procedure for assessing attitude accessibility was modeled after Fazio (1990).

On finishing the computer task, participants were instructed to complete the experimental booklet containing the sample of writing. The first page of the booklet reiterated the cover story, and the second page contained the sample of writing. The writing sample was an article, attributed to *Time* magazine, that argued against the use of nuclear power plants. Half of the participants were randomly assigned to receive a version of the article that contained arguments that were strong and convincing. The other half of the participants were randomly assigned to receive a version that contained arguments that were weak and unconvincing.

The strong and weak versions of this message were constructed on the basis of a pretest (for a discussion of argument quality pretesting procedures, see Petty & Cacioppo, 1986b). The strong version of the message consisted of four arguments originally developed by Haugtvedt and Wegener (1994) to elicit predominantly positive cognitive responses to the advocacy (i.e., to be strong arguments). For example, one argument in this message discussed the fact there was no guarantee that current nuclear waste disposal technologies would result in no harm to the environment or people. We constructed a weak version of the message, which consisted of four arguments designed to be similar to the strong arguments in terms of potential peripheral cues but to elicit primarily negative rather than positive cognitive responses to the advocacy (i.e., to be weak arguments). For instance, one argument in this message stated that although other forms of power such as coal generated more waste than nuclear power, these sources were more desirable than nuclear power because the extensive waste disposal requirements generated more jobs. A separate pretest sample of 24 undergraduate students were provided with either the strong or weak message, asked to think carefully about the arguments, and then asked to provide their cognitive responses to the message. Analyses confirmed that the strong version of the message elicited predominantly positive cognitive responses (at least 65%) and the weak argument elicited predominantly negative cognitive responses (at least 65%).

After reading the article, participants completed five filler questions concerning stylistic aspects of the article and then the key attitude and thought measures. Finally, all participants were thoroughly debriefed and thanked for their participation.

Measures. Attitude accessibility was assessed by having participants report their attitudes toward four attitude objects: nuclear power plants, capital punishment, legalized abortion, and U.S. foreign aid to Mexico. All participants completed three dichotomous measures of attitudes (bad/good, harmful/beneficial, negative/positive) for each issue on computer. The response latencies of each participant were recorded by the computer for each question. The attitude measures for the target attitude object (i.e., nuclear power plants) were presented in the fourth, seventh, and eleventh positions.

To achieve an overall index of attitude accessibility, several computations were undertaken. First, a reciprocal transformation was performed on all response latencies to normalize their distributions. An overall response latency for the issue of nuclear power plants was then

obtained by computing the average of the transformed response latencies for the three questions on nuclear power. An index of the response latency for the filler issues was also obtained by computing the average of the transformed response latencies for the questions on the filler issues.[2] A final measure of attitude accessibility for nuclear power was then computed by subtracting the average transformed latency for the filler issues from the average transformed latency for nuclear power. This created a final index of nuclear power attitude accessibility that reflected the accessibility of each person's attitude toward nuclear power relative to his or her baseline accessibility of the three filler issues. Thus, this index controlled for individual differences in response speed (see Fazio, 1990).

Premessage attitudes toward nuclear power were measured using responses to the three dichotomous attitude measures used to assess attitude accessibility. Responses to these items were coded such that negative responses were coded as 0 and positive responses were coded as 1. These responses were then summed to create an overall index of premessage attitudes toward nuclear power. The resulting index was found to be highly reliable with a Cronbach alpha of .96.

Postmessage attitudes toward nuclear power were measured using 7-point semantic differential scales (bad/good, harmful/beneficial, foolish/wise, negative/positive). An overall index of attitudes was created by computing the average of the four responses. This resulted in the a score ranging from 1 to 7, with the higher numbers reflecting greater positivity. The Cronbach alpha for this scale was .98, indicating an extremely high level of reliability.

After responding to the postmessage attitude measures, participants' cognitive responses to the message were obtained by instructing participants to list whatever thoughts occurred to them while reading the message. Participants were provided with a page containing eight boxes. They were instructed to list each thought in one of the boxes provided. These thoughts were later coded by two independent judges who categorized the thoughts on two dimensions. First, the judges determined if each thought was relevant or irrelevant to the message topic. They then categorized the thought as favorable, unfavorable, or neutral with respect to the advocacy. An index of cognitive responses was then obtained for each judge by subtracting the number of issue-relevant negative thoughts from the number of issue-relevant positive thoughts and then dividing this by the total number of issue-relevant thoughts. An analysis of this index obtained from the two judges revealed a high level of agreement between judges ($r = .89$). Thus, these two indices were averaged to obtain a single index of cognitive responses (see Petty & Cacioppo, 1986b).

Results

Premessage attitudes. An examination of premessage attitudes indicated that 85 participants reported negative premessage attitudes toward nuclear power whereas 56 participants reported positive attitudes. Because attitude accessibility was measured rather than manipulated in this experiment, it was possible that premessage attitudes and attitude accessibility might have been correlated. An analysis revealed that these measures were in fact weakly correlated ($r = -.16$, $p = .07$). Thus, it was necessary to unconfound assignment to level of accessibility from initial attitude. This was done by categorizing participants into high, moderate, and low attitude accessibility groups using separate tertiary splits for those who were initially favorable and those who were initially unfavorable to nuclear power. The two tertiary splits were performed on the response latency index of attitude accessibility toward nuclear power plants and resulted in a total of 48 participants in the low accessibility group, 46 participants in the moderate accessibility group, and 47 participants in the high accessibility group. This procedure ensured that the low (29 against and 19 in favor), moderate (28 against and 18 in favor), and high (28 against and 19 in favor) attitude accessibility groups did not differ from one another in the number of participants who were initially favorable or unfavorable toward nuclear power.

Postmessage attitudes. The first analysis conducted to examine the impact of attitude accessibility on elaboration of persuasive messages was an analysis of postmessage attitudes as a function of accessibility and argument quality. To test our primary hypothesis, a 3 (attitude accessibility: high vs. moderate vs. low) × 2 (argument quality: strong vs. weak) analysis of variance (ANOVA) was conducted on postmessage attitudes. This analysis revealed a significant main effect for argument quality, $F(1, 132) = 26.58$, $p < .01$, such that strong arguments against nuclear power produced significantly more negative postmessage attitudes ($M = 2.52$) than did weak arguments against nuclear power ($M = 4.15$). The main effect for attitude accessibility was not significant, $F(2, 132) = .24$, $p = .79$.

More important, the predicted interaction between attitude accessibility and argument quality was obtained, $F(2, 132) = 5.08$, $p = .01$. The cell means associated with this interaction are shown in Figure 1. The pattern of these means confirmed our prediction that increases in attitude accessibility would lead to enhanced elaboration of persuasive messages. When attitude accessibility was low, a planned contrast revealed that the difference in postmessage attitudes between those who received strong ($M = 3.13$) versus weak ($M = 3.72$) arguments failed to reach statistical significance, $F(1, 132) = 1.18$, $p =$

.28. However, this difference between the strong (M = 2.50) and weak (M = 3.81) arguments was approximately twice as large and statistically significant in the moderate accessibility group, $F(1, 132) = 5.81$, $p = .02$. Finally, the difference between strong (M = 1.81) and weak (M = 4.80) arguments was largest in the high accessibility group, $F(1, 132) = 30.26$, $p < .01$. Thus, the interaction between accessibility and argument quality confirmed that as accessibility increased, the impact of argument quality on persuasion was enhanced.[3]

Cognitive responses. An analysis of cognitive responses was also undertaken. This analysis was a 3 (attitude accessibility: high vs. moderate vs. low) × 2 (argument quality: strong vs. weak) ANOVA conducted on the index of participants' cognitive responses. This analysis revealed a pattern generally consistent with the attitude data. Specifically, a main effect of argument quality demonstrated that strong arguments against nuclear power produced more responses favorable to the advocacy (M = .49) than did weak arguments against nuclear power (M = −.10), $F(1, 121) = 25.50$, $p < .01$. Again, the main effect of attitude accessibility was not significant, $F(2, 121)$ = .15, $p = .86$. Of greater interest was the interaction between attitude accessibility and argument quality. Here, although the pattern of means was partially consistent with our hypothesis that argument quality would have a greater impact on valenced thoughts when attitudes were highly accessible, the interaction was not statistically significant, $F(2, 121) = 1.99$, $p = .14$. Nevertheless, when attitude accessibility was high, the difference between thoughts to strong (M = .68) versus weak (M = −.21) arguments was somewhat greater than the difference between thoughts to strong (M = .37) versus weak (M = .06) arguments when accessibility was moderate or low (Ms = .45 and −.14).[4]

Discussion

Taken as a whole, the results of Experiment 1 provided relatively consistent evidence that increased message topic attitude accessibility led to enhanced elaboration of a persuasive message on that topic. This was strongly supported by analyses of postmessage attitudes, which indicated that the impact of argument quality on persuasion increased as attitude accessibility increased. Analyses of cognitive responses produced a pattern of results that was also consistent with the hypothesis, although the interaction failed to reach significance.

EXPERIMENT 2

Although the evidence obtained in Experiment 1 supported the notion that increased accessibility was associated with greater elaboration of messages, these data were correlational in nature. That is, attitude accessibility was measured rather than experimentally manipulated. To provide further evidence of the role of attitude accessibility in elaboration of persuasive messages, a second experiment was undertaken in which a different topic was used (i.e., vegetarianism) and accessibility was experimentally manipulated through the use of a repeated attitude expression procedure (see Fazio, 1995). This allowed us to examine the robustness of the accessibility and elaboration effect across topic and method.

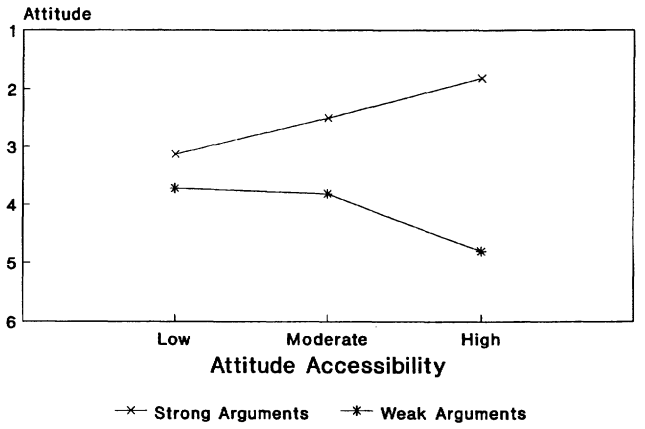

Figure 1 Postmessage attitudes as a function of attitude accessibility and argument quality.

Additionally, the use of an experimental manipulation of accessibility in Experiment 2 allowed for a direct test of one of the possible explanations for why accessibility might relate to levels of elaboration: differences in amount of attitude-relevant knowledge. That is, it is possible that differences in accessibility per se were not responsible for the differences in elaboration observed in Experiment 1. Instead, it might have been that people with higher levels of attitude accessibility also possessed a greater amount of attitude-relevant knowledge, which in turn enabled high levels of message scrutiny (see Wood, 1982; Wood et al., 1985). Because assignment to level of accessibility is random in Experiment 2, differences in *amount* of attitude-relevant knowledge are held constant across levels of accessibility. Thus, obtaining an effect of accessibility on elaboration using a repeated attitude expression procedure would demonstrate that concomitant differences in amount of attitude-relevant knowledge are not responsible for the effect of accessibility on message scrutiny.

Method

Participants. Participants were 51 undergraduate students enrolled in introductory psychology. Students took part in the experiment in partial fulfillment of course requirements.

Procedure. Experiment 2 was a 2 (attitude accessibility: high vs. low) × 2 (argument quality: high vs. low) factorial design. All sessions were conducted in groups ranging from 1 to 12 people. Participants were provided with a cover story similar to that of Experiment 1. Specifically, they were told that the purpose of the experiment was to evaluate the quality of writing for various written passages.

Prior to reading the editorial (persuasive message), the accessibility of participants' attitudes toward vegetarianism was experimentally manipulated. This was done by having some people express their attitudes toward vegetarianism multiple times and other people express their attitudes toward vegetarianism only once. Numerous experiments have shown that as the frequency of expressing an attitude increases, the accessibility of that attitude is enhanced (see Fazio, 1995).

Thus, prior to reading the editorial, all participants completed a 33-question survey assessing their opinions on different social issues (e.g., capital punishment, gay rights). All measures used 7-point scales. The survey was presented as part of an ostensibly separate task for a different researcher. Half of the participants were randomly assigned to the low attitude accessibility group. These people received a version of the survey that contained just one attitude measure of vegetarianism with end-points of *definitely opposed* and *definitely in favor.* This measure was the second-to-last question in the survey. The other half of the participants (i.e., the high accessibility group) received a version of the survey that also included this question in the second-to-last position. However, five additional measures of attitude toward vegetarianism were embedded among the 31 questions asked prior to this question. Each of these five measures asked participants to report their attitudes toward vegetarianism on scales with different end-points (i.e., disapprove/approve, bad/good, unnecessary/necessary, inappropriate/appropriate, foolish/wise).

After finishing the 33-item survey, participants then completed a short filler task unrelated to the present experiment. Next, all participants completed the booklet containing the message on vegetarianism. The first page of this booklet provided the cover story that the purpose of the task was to assess the quality of samples of writing. On the following page, participants were then presented with a one-page editorial arguing in favor of vegetarianism. Half of the participants were randomly assigned to receive a version of the editorial that contained arguments that were strong and convincing when people thought carefully about the information. The other half of the participants were randomly assigned to receive a version that contained arguments that were weak and unconvincing.

The strong and weak versions of this message were constructed on the basis of a pretest on a separate group of 40 undergraduate students (for a discussion of argument quality pretesting procedures, see Petty & Cacioppo, 1986b). Participants in this pretest were asked to think carefully about an initial pool of 40 arguments and to provide cognitive responses to each argument. The 40 arguments were composed of 20 pairs of pro-vegetarianism arguments designed to be similar in terms of potential peripheral cues but with one of the pair designed to elicit positive cognitive responses to the advocacy (i.e., to be a strong argument) and the other designed to elicit negative cognitive responses to the advocacy (i.e., to be a weak argument). From this initial pool, eight pairs of arguments were selected in which the strong argument elicited predominantly positive cognitive responses (approximately 80%) and the weak argument elicited predominantly negative cognitive responses (approximately 80%). For example, one argument included in the strong version stated that a vegetarian diet was less expensive than a diet including meat and resulted in an average yearly savings of $700. In contrast, the weak version of the message included an argument that stated that a vegetarian diet was less expensive than a diet including meat and resulted in an average yearly savings of $24.

Following the message, participants completed six filler questions assessing the quality of the writing in the editorial and then the key attitude and thought measures. Following this, participants were debriefed and thanked for their participation.

Measures. Attitudes toward the target issue (i.e., vegetarianism) were assessed using two different types of measures. First, the overall evaluation of favorability toward the message on vegetarianism was assessed using a 9-point scale anchored with the end-points disliked and liked. Second, a set of five semantic differentials (negative/positive, harmful/beneficial, foolish/wise, unfavorable/favorable, bad/good) using 9-point scales were included. Responses to these six measures were averaged to obtain an overall index of attitude, with higher numbers reflecting greater positivity. The Cronbach alpha for this index was .88.

Cognitive responses were assessed and coded and an overall index was computed using a procedure identical to that of Experiment 1. The assessment of interrater reliability for cognitive responses indicated that there was a high level of agreement between the judges in their coding of the cognitive responses ($r = .94$).

Results

Premessage attitudes. If the experimental manipulation of attitude accessibility was successful in leading to enhanced elaboration of the persuasive message, then a

significant interaction between accessibility and argument quality should have been obtained for both the postmessage attitude and cognitive response measures. However, before conducting these analyses, it was first necessary to ensure that the manipulation of attitude accessibility did not influence the extremity of premessage attitudes. Some past research has suggested that at least under some conditions, such repeated attitude expression manipulations can lead to changes in attitude extremity (Brauer, Judd, & Gliner, 1995; Downing, Judd, & Brauer, 1992; Judd & Brauer, 1995; see also Fazio, 1995). If this were the case in Experiment 2, then differences in extremity might account for the enhanced elaboration effect rather than differences in attitude accessibility. To test this possibility, participants' responses to the final vegetarianism attitude expression measure in the 33-item survey were recoded to reflect the deviation of each participant's premessage attitude from the midpoint of the scale (i.e., the extremity of the attitude). A one-way ANOVA of these extremity scores revealed that the manipulation of attitude accessibility did not significantly alter the extremity of premessage attitudes, $F(1, 49) = .37$, $p = .54$.

Postmessage attitudes. As in Experiment 1, the primary test of the impact of attitude accessibility on elaboration of persuasive messages was a 2 (attitude accessibility: high vs. low) × 2 (argument quality: strong vs. weak) ANOVA conducted on postmessage attitudes. The results of the analysis revealed a significant main effect of argument quality, $F(1, 46) = 4.84$, $p = .03$, such that strong arguments in favor of vegetarianism produced significantly more favorable attitudes ($M = 6.12$) than did weak arguments ($M = 5.27$). The main effect for attitude accessibility was not significant, $F(1, 46) = .68$, $p = .41$.

More important, the predicted interaction between attitude accessibility and argument quality was reliable, $F(1, 46) = 4.35$, $p = .04$. The means associated with this interaction are shown in Figure 2. As can be seen in the figure, when attitude accessibility was low, there was no difference in postmessage attitudes to strong ($M = 5.60$) or weak ($M = 5.56$) message arguments, $F(1, 46) = .01$, $p = .92$. However, strong arguments ($M = 6.81$) produced significantly more positive attitudes than did weak arguments ($M = 5.04$) when attitude accessibility was high, $F(1, 46) = 9.30$, $p < .01$. Thus, participants in the high attitude accessibility group appear to have engaged in more extensive scrutiny of the persuasive message than did participants in the low attitude accessibility group.

Analysis of cognitive responses. A second test of the impact of attitude accessibility on elaboration of persuasive messages was done by conducting the same 2 × 2 ANOVA on the cognitive response index. Consistent with the results for postmessage attitudes, the analysis revealed a significant main effect of argument quality, $F(1, 40) = 5.05$, $p = .03$, such that strong arguments produced more favorable cognitive responses to the advocacy ($M = -.10$) than did weak arguments ($M = -.40$). The main effect for accessibility was not significant, $F(1, 40) = 1.35$, $p = .25$.

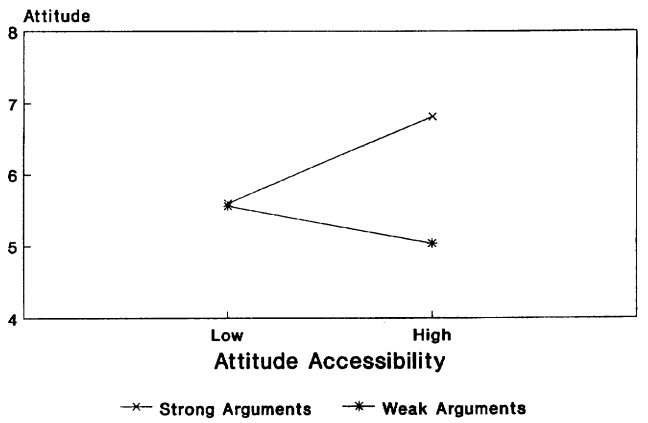

Figure 2 Postmessage attitudes as a function of attitude accessibility and argument quality.

Of greater interest was the significant interaction between attitude accessibility and argument quality, $F(1, 40) = 6.13$, $p = .02$. When attitude accessibility was low, there was little difference in the favorability of cognitive responses between those who received strong arguments ($M = -.32$) and those who received weak arguments ($M = -.29$), $F(1, 40) = .02$, $p = .89$. However, when accessibility was high, strong arguments produced significantly more favorable cognitive responses ($M = .24$) than did weak arguments ($M = -.49$), $F(1, 40) = 10.98$, $p < .01$. Thus, the analysis indicated that argument quality had a greater impact on cognitive responses when attitude accessibility was high compared to when it was low.[5]

Discussion

The results of Experiment 2 provided additional support for the hypothesis that increased attitude accessibility causes increased elaboration of persuasive messages. Using an experimental manipulation of accessibility and a different message topic, analyses of postmessage attitudes and cognitive responses both suggested enhanced elaboration of messages when accessibility of attitudes toward the message topic was increased. Thus, the effect demonstrated in Experiment 1 was shown to generalize to a different methodology and topic. Also, because assignment to level of accessibility was random, Experiment 2 demonstrated that the impact of accessibility on elaboration could not be explained by premessage differences in amount of attitude-relevant knowledge.

GENERAL DISCUSSION

Summary

The two experiments reported in this article provided consistent evidence in support of the hypothesis that increased accessibility of attitudes toward a message topic can lead to enhanced scrutiny of a persuasive message on that topic. This hypothesis was supported in studies using either manipulated or measured operationalizations of attitude accessibility. In each experiment, the quality of the arguments contained in the message had more impact on the extent to which people were persuaded when attitudes were high in accessibility compared to when they were low in accessibility.

Results of analyses of cognitive responses, although weaker in Experiment 1 than in Experiment 2, also supported the hypothesis. When accessibility was low, there was little difference in the favorability of the cognitive responses produced by strong versus weak arguments. However, when accessibility was high, argument quality had a larger impact on the favorability of cognitive responses to the message.

Consistent with our expectations that the accessibility by argument quality interaction would not be moderated by whether the position taken was pro- or counterattitudinal, the three-way interaction among initial attitude valence, attitude accessibility, and argument quality was not significant in either experiment (see Notes 4 and 5). Nevertheless, the pattern of means suggested that in Experiment 2, enhanced message elaboration under high accessibility might be more apparent when the message was counter- rather than proattitudinal. However, in Experiment 1, enhanced elaboration was just as apparent when the message was pro- rather than counterattitudinal. Given that these analyses used small samples, the instability is not surprising.

Thus, taken together, the analyses of postmessage attitudes and cognitive responses provided converging evidence that individuals with attitudes high in accessibility engaged in more elaboration of the message than did individuals with attitudes low in accessibility. Also of note was the fact that Experiment 2 demonstrated that the differences in elaboration due to accessibility cannot be attributed to differences in the amount of attitude-relevant knowledge held by people with attitudes of high versus low accessibility.

Implications

The findings obtained in our experiments have a variety of interesting implications for theory and research on attitudes and persuasion. At the most basic level, these data provide a useful initial step in addressing a long-standing gap in the attitude literature. As discussed earlier, although accessibility has been demonstrated to influence a number of attitudinal processes, remarkably little research has been conducted exploring how accessibility of an attitude toward a message topic influences persuasion. The present set of experiments provides clear evidence that one mechanism by which attitude accessibility influences persuasion is as a determinant of the amount of message elaboration.

Within the ELM framework that guided our research, the relation between attitude accessibility and magnitude of persuasion is not a simple one, at least when situational and dispositional factors are such that motivation and ability to elaborate a message are relatively moderate. That is, increases in attitude accessibility can be associated with either more persuasion or less persuasion, depending on whether the persuasive message is weak or strong.

The present experiments also suggest that regardless of whether attitudes high and low in accessibility differ in the magnitude of change in response to a persuasive appeal, the psychological process by which they are changed might be quite different. When background factors are such that motivation and/or ability to elaborate are not constrained to be extremely high or low, change for attitudes high in accessibility is relatively likely to occur as the result of careful elaboration of the central merits of the arguments. In contrast, change for attitudes low in accessibility is more likely to be the result of reliance on simple peripheral cues in the persuasion context (e.g., source credibility). This point is quite consequential because change as a result of high rather than low elaboration leads to attitudes that are more persistent over time, more resistant to counterpersuasion, and more predictive of behavior (Petty, Haugtvedt, & Smith, 1995).

Finally, these data have interesting implications for the literature investigating different determinants of attitude strength. Over the past 15 years, a large body of empirical research has accumulated supporting the notion that a variety of different dimensions of attitudes including the extent to which an attitude is based on elaboration of attitude-relevant information (Petty, Haugtvedt, & Smith, 1995) and the extent to which an attitude is accessible in memory (Fazio, 1995) influence the underlying strength of the attitude. However, the exact nature of the relations among these various determinants of attitude strength is still only poorly understood (Krosnick & Petty, 1995; Wegener, Downing, Krosnick, & Petty, 1995). The present results help to address this shortcoming in the attitude strength literature by examining the relation between two of the most widely researched determinants of attitude strength: elaboration and attitude accessibility.

Past research has suggested that high levels of attitude accessibility can be a consequence of extensive elabora-

tion of attitude-relevant information (Petty, Haugtvedt, & Rennier, 1995; cited in Petty, Haugtvedt, & Smith, 1995). The present results suggest that the causal relation between these two constructs can also work in the reverse. That is, our results suggest that elaboration can also be a consequence of attitude accessibility. A recognition of the bi-directional relation between these constructs is important because it helps to explain why both constructs are associated with enhanced attitude strength and how attitude strength might be maintained over time. One reason that highly accessible attitudes are strong might be that such attitudes are likely to encourage extensive elaboration of attitude-relevant information. This elaboration could in turn lead to an even stronger link between the object and the evaluation (i.e., greater attitude accessibility) as well as to other structural changes associated with strength (see Krosnick & Petty, 1995). Also, such enhanced accessibility might in turn lead to even more extensive elaboration of subsequent attitude-relevant information. Thus, attitude accessibility and elaboration could work to mutually reinforce one another over time.[6]

Directions for Future Research

Explanations for the impact of accessibility on elaboration. One useful direction for future inquiry would be to investigate the psychological mechanisms underlying the impact of accessibility on elaboration. Although our data provided consistent evidence of the impact of message topic attitude accessibility on elaboration of persuasive messages, these data did not document why accessibility influences elaboration. In the introduction to this article, we provided two possible explanations.

First, we postulated that accessibility might influence elaboration because the accessibility of the attitude could influence the extent to which an attitude is seen as personally important and relevant. This relation might exist because attitudes that are highly accessible come to mind spontaneously and thereby communicate that the object has hedonic consequences. Alternatively, the relation might exist because people use their ease of retrieving an attitude from memory as a basis for inferring its importance. Regardless, such perceptions of importance and relevance in turn could affect motivation to elaborate. A second explanation that we offered was that accessibility might influence amount of elaboration by virtue of its relation to the amount and/or accessibility of attitude-relevant information. Thus, when encountering a message, people with highly accessible attitudes might be able to elaborate the message better than people with low accessible attitudes because they have more information about the topic to draw on or because that information is more readily accessible in memory.

Our data allow us to rule out the hypothesis that accessibility influences elaboration solely because of differences in amount of attitude-relevant knowledge. However, the importance explanation and the differential accessibility of attitude-relevant knowledge remain viable explanations for the effect. Future research establishing whether one or both of these mechanisms are responsible for the effect would further clarify the relation between accessibility and elaboration.

Multiple roles of message topic accessibility. Another promising direction for future research would be to investigate other roles that attitude accessibility might serve in the persuasion process. In our introduction, we speculated that accessibility could influence persuasion processes in three ways depending on other factors present in the persuasion context. The experiments presented in this article were designed to demonstrate that message topic accessibility could serve as a determinant of the amount of message elaboration when other factors in the persuasion context were such that motivation and ability to elaborate were not extremely high or low.

However, in cases in which motivation and/or ability to process are constrained to be low (e.g., high distraction conditions; Petty et al., 1976), we speculated that accessibility could influence persuasion by determining the likelihood that a message topic attitude will come spontaneously to mind on encountering a message. The attitude could then serve as a simple peripheral cue for accepting the advocacy if it is consistent with the attitude or rejecting the advocacy if it is inconsistent with the attitude. Alternatively, we suggested that when motivation and ability to elaborate are rather high, accessibility could influence persuasion by regulating the likelihood that the attitude would come to mind when encountering the message and consequently bias elaboration in an attitude-consistent direction (see also Houston & Fazio, 1989). Future research specifically designed to examine the role of accessibility in cue processes and biased elaboration processes would be useful.

Interestingly, according to this multiple role perspective, there are three possible explanations for why past research has demonstrated that increased accessibility was associated with less persuasion (Bassili, 1996; Bassili & Fletcher, 1991). One possibility is that people with accessible attitudes might have rejected the counterattitudinal statement more than people with inaccessible attitudes because their attitudes were more likely to spontaneously come to mind and thereby serve as a simple cue for rejecting the message. Alternatively, highly accessible attitudes might have been more likely to come to mind during elaboration of the message and thus bias the direction of thoughts in an attitude-consistent direction. A third possibility is that if the counterarguments were relatively weak, increased accessibility might

have led to less persuasion because of greater elaboration of the weak message.

Other types of attitude accessibility. Finally, it is worth noting that in our experiments we confined ourselves to examining the impact of accessibility of an attitude toward a message topic. However, there are a variety of other features in the persuasion context toward which a person might form attitudes. The accessibility of these attitudes could also influence persuasion processes. Similarly, like message topic attitude accessibility, the roles these other types of attitude accessibility serve could vary depending on the background level of motivation and ability to elaborate information related to the persuasive appeal.

One example of this is a person's attitude toward the source of the message rather than the message topic. Roskos-Ewoldsen and Fazio (1992a) have demonstrated that when the accessibility of attitudes toward a likable and credible source on the topic of environmental issues (i.e., Jacques Cousteau) was increased, the impact of persuasive messages about environmental issues attributed to that source was enhanced. What is less clear in these data, however, is whether this effect was a result of enhanced cue effects, enhanced elaboration of strong arguments, or enhanced positive bias in elaboration.

Similarly, one could imagine the accessibility of attitudes toward other features of the persuasion context also being consequential. For instance, the accessibility of a person's attitude toward the channel by which the message is transmitted (e.g., radio, written communication, or television) could conceivably serve multiple roles in persuasion. Other examples include the accessibility of attitudes toward message features (e.g., message style) and toward oneself (e.g., self-esteem). Examining the roles served by these and other types of attitude accessibility in persuasion processes provides several promising directions for future research.

NOTES

1. Although there is no reason to expect that the basic form of the accessibility by argument quality interaction (i.e., a greater difference between strong and weak arguments under high than low accessibility) should differ for proattitudinal versus counterattitudinal messages, this does not mean that message position is necessarily irrelevant to the accessibility and processing effects postulated here. For example, at least in some circumstances, the baseline level of elaboration might be higher for counterattitudinal messages than for proattitudinal messages (see Cacioppo & Petty, 1979), making it more difficult to detect enhanced processing due to accessibility or other variables (i.e., ceiling effects). Alternatively, because proattitudinal messages are nonthreatening, they may elicit little elaboration even when one's attitude is highly accessible (i.e., floor effects). Another way in which the pro- or counternature of the message might have an impact is that the specific mediation of the accessibility effect might be different for each message. For example, it is possible that for counterattitudinal messages, the increased argument quality effects associated with increased accessibility might be especially due to increasing negativity in response to weak arguments as accessibility increases. In the case of proattitudinal messages, however, the increased argument quality effect might more likely be due to increasing positivity in response to strong arguments as accessibility increases.

2. The response latencies for the question that appeared in the first position (i.e., the bad/good attitude measure of capital punishment) were excluded from the computation of the average response latency for the filler issues. This was done for two reasons. First, because it was the very first question presented, error rates in responses (e.g., hitting an invalid key) were higher for this question than subsequent questions. Second, responses to this question were substantially slower than other questions because participants usually took at least one trial to learn the task. Thus, it seemed sensible to exclude this question from our computations of baseline response latencies.

3. An analysis was also conducted using a median split for the attitude accessibility measure. The results of this analysis were very similar to those obtained using the tertiary split. In this analysis, the argument quality main effect was highly significant $F(1, 134) = 26.45$, $p < .01$. The main effect of attitude accessibility was not significant, $F(1, 134) = .21$, $p = .65$. Importantly, the predicted interaction between accessibility and argument quality was also significant, $F(1, 134) = 6.15$, $p = .01$.

4. Although it was not a primary goal of the present research, we also explored if there was a relationship between accessibility and premessage attitudes in influencing elaboration. We did this in two ways. First, we tested whether the valence of premessage attitudes affected the extent to which accessibility influenced the elaboration of persuasive messages. This was done by including valence of initial attitude as an additional independent variable in our ANOVA testing the influence of accessibility and argument quality on postmessage attitudes. This analysis indicated that valence of initial attitudes did not affect the extent to which accessibility influenced elaboration. The three-way interaction among initial attitude valence, attitude accessibility, and argument strength was not significant, $F(2, 126) = .12$, $p = .89$. In a second analysis, we tested to see if accessibility influenced the degree to which premessage attitudes biased the elaboration of messages. This was done by conducting a multiple regression analysis in which premessage attitudes, argument quality, accessibility, and the interactions among these variables were used to predict cognitive responses to the message. This analysis indicated that the interaction between premessage attitudes and accessibility was not significant, $F(2, 117) = .99$, $p = .32$. Thus, the extent to which premessage attitudes influenced cognitive responses to the message did not vary as a function of accessibility. This is not surprising given that accessibility would be most likely to influence the extent to which attitudes bias elaboration in situations in which background conditions to elaborate are quite high. The present experiment was designed to provide conditions of moderate elaboration. Also, one would expect to observe attitudes biasing elaboration in situations in which the quality of the arguments is somewhat ambiguous rather than clearly strong or weak (Chaiken & Maheswaran, 1994). The present experiment had arguments designed to be extremely strong or extremely weak.

5. As in Experiment 1, we tested whether the valence of premessage attitudes affected the extent to which accessibility influenced the elaboration of persuasive messages. This was done by categorizing participants based on whether the valence of their initial attitude was negative (12 participants), neutral (19 participants), or favorable (19 participants). Valence of initial attitude was then included as an additional independent variable in our ANOVA testing the influence of accessibility and argument quality on postmessage attitudes. This analysis revealed that the three-way interaction among initial attitude valence, attitude accessibility, and argument strength was marginally significant, $F(2, 38) = 2.83$, $p = .07$. An examination of the cell means suggested that this marginal interaction indicated that the accessibility by argument quality interaction was stronger for participants with initially negative or neutral attitudes than it was for participants with initially positive attitudes. Given that the message was pro-vegetarianism, this finding suggests that attitude accessibility might not enhance elaboration in cases in which the message is clearly consistent with a person's initial attitude. However, there are reasons to exercise caution in interpreting this interaction. First, the fact that this interaction was not even close to significant in Experiment 1 and failed to reach traditional levels of significance in the present experiment raises ques-

tions concerning the robustness of the effect. Second, in Experiment 2, the analysis including initial attitude valence as an independent variable resulted in 12 different experimental conditions for which the total sample size was comparatively small ($N = 51$). Thus, the three-way interaction was based on extremely small cell sizes (i.e., the average cell size was approximately 4 participants) thereby raising the possibility that one or two outliers could substantially distort the means in one or more of the cells. The fact that Experiment 1, for which cell sizes were substantially larger (approximately 12 participants per cell), failed to produce the effect further strengthens this possibility. Finally, it is worth noting that the critical two-way interaction between accessibility and argument quality in this analysis remained significant and was stronger than the marginal three-way interaction, $F(1, 38) = 5.38$, $p = .03$. In the second analysis, we once again conducted a multiple regression analysis in which premessage attitudes, argument quality, accessibility, and the interactions among these variables were used to predict cognitive responses to the message. This analysis indicated that the interaction between premessage attitudes and accessibility was not significant, $F(1, 37) = 2.50$, $p = .12$. Thus, the extent to which premessage attitudes influenced cognitive responses to the message did not vary as a function of accessibility.

6. Interestingly, at some point, enhanced accessibility might come to signal that the person has *already* scrutinized an issue many, many times, and thus the likelihood of further thinking might be reduced. This curvilinear hypothesis might be examined in future research.

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