

Attitude Accessibility as a Moderator of the Attitude-Perception and Attitude-Behavior Relations: An Investigation of the 1984 Presidential Election

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It was hypothesized that the extent to which individuals' attitudes guide their subsequent perceptions of and behavior toward the attitude object is a function of the accessibility of those attitudes from memory. A field investigation concerning the 1984 presidential election was conducted as a test of these hypotheses. Attitudes toward each of the two candidates, Reagan and Mondale, and the accessibility of those attitudes, as indicated by the latency of response to the attitudinal inquiry, were measured for a large sample of townspeople months before the election. Judgments of the performance of the candidates during the televised debates served as the measure of subsequent perceptions, and voting served as the measure of subsequent behavior. As predicted, both the attitude-perception and the attitude-behavior relations were moderated by attitude accessibility. The implications of these findings for theoretical models of the processes by which attitudes guide behavior, along with their practical implications for survey research, are discussed.

Research on the consistency between individuals' attitudes and behavior toward an object has focused on the identification of variables that moderate the extent of the observed relation. This approach, which has been referred to as the *When?* generation of research due to its focus on the issue of when attitude scores are predictive of later behavior (Zanna & Fazio, 1982), has produced considerable progress. A variety of situational variables, personality factors, and qualities of the attitude itself have been identified as moderators of the attitude-behavior relation (see Fazio, 1986, for a recent review).

Yet another approach to the attitude-behavior issue has been initiated recently. This approach centers on the process(es) by which attitudes guide behavior, what Zanna and Fazio (1982) referred to as the *How?* question. Within this context, it has been suggested that the accessibility of an individual's attitude from memory assumes crucial importance. In fact, Fazio and his colleagues have proposed a model of the attitude-to-behavior process that focuses specifically on the chronic accessibility of the attitude from memory (Fazio, 1986; Fazio, Powell, & Herr, 1983). In brief, the model views behavior in any given situation as stemming from individuals' perceptions of the attitude object and the situation in which the attitude object is en-

countered. Consistent with the object appraisal function that attitudes presumably serve (Katz, 1960; Smith, Bruner, & White, 1956) and with the constructive nature of perception, individuals' attitudes may guide such perceptions. That is, selective processing of the qualities of the attitude object in the immediate situation can occur. However, selective processing in a manner that is congruent with the valence of the attitude is conceivable only given that the attitude has been activated from memory upon observation of the attitude object. Hence, the accessibility of the attitude is postulated to be a critical determinant of whether the attitude-to-behavior process is initiated. In this way, attitude accessibility is thought to affect both the attitude-perception and the attitude-behavior relations.

The present research involves both the *when* and the *how* approach in that it centers on attitude accessibility as a moderator of the attitude-behavior relation. Attitude accessibility was measured for each of the respondents in an attitude survey. The consistency between attitudes and later behavior toward the attitude object (as well as the consistency between attitudes and perceptions of the attitude object in a later situation) was examined as a function of attitude accessibility scores. In this way the present investigation serves as both a test of the proposed process model (the *how* question) and as an attempt to identify a variable that moderates the attitude-behavior relation (the *when* question).

According to the process model, the chronic accessibility of an attitude is a function of the associative strength of the attitude object and the evaluation that the individual holds of the object. That is, attitudes are characterized as object-evaluation associations and the strength of the association acts as a determinant of the accessibility of the attitude. The stronger the association, the greater the likelihood that the evaluation will be activated spontaneously upon the individual's encountering the attitude object. Support for this view stems from a number of experiments involving attempts to enhance the strength of the

The present research was supported by Grant MH 38832 from the National Institute of Mental Health.

The authors thank David Brown, the manager of the shopping mall where the attitude data were collected, for his cooperation; Sheri Rieth for her skillful assistance with all the phases of data collection; and Michael Bailey for designing and building the apparatus that was used to measure and record attitudes and response latencies. In addition, the authors are grateful to Paget Gross, David Sanbonmatsu, and Steven Sherman for their comments on an earlier draft of the article.

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object-evaluation association by inducing individuals to note and express their attitudes repeatedly. Such repeated expression has been found to enhance both the speed with which individuals can respond to inquiries concerning their attitudes (Fazio, Chen, McDonel, & Sherman, 1982; Powell & Fazio, 1984) and the likelihood that the attitude will be activated automatically from memory upon the individual's mere observation of the attitude object (Fazio et al., 1983; Fazio, Sanbonmatsu, Powell, & Kardes, 1986).

The obvious implication of this view is that the attitudes of two individuals with identical scores from some attitude measurement instrument may still differ markedly. The strength of the object-evaluation association and, hence, the chronic accessibility of the attitude may differ. Consequently, when they encounter the attitude object in a given situation, the attitude of one individual may be activated automatically, whereas the attitude of the other may not be. Thus, the two individuals may construe any information that becomes available concerning the attitude object quite differently. Perceptions of the attitude object and, ultimately, behavior toward the object are more likely to be "guided" by the attitude in the case of the individual whose attitude has been activated.

To date, little research has been conducted linking attitude accessibility to attitude-behavior consistency. However, a number of findings suggest that such a moderating effect may occur. For example, the manner of attitude formation has been found to affect both attitude-behavior consistency (see Fazio & Zanna, 1981, for a review) and attitude accessibility (Fazio et al., 1982, Experiments 1 and 2; Fazio et al., 1983). In separate experiments, it has been observed that individuals who were introduced to a set of intellectual puzzles, via direct behavioral experience with example puzzles, formed attitudes that were both more accessible from memory and more predictive of their later behavior with those puzzles than did individuals who were provided only with indirect nonbehavioral experience. Enhancement of the strength of the object-evaluation association through repeated attitudinal expression has been found to produce similar effects. Again, in separate experiments, this manipulation has been observed to enhance both attitude accessibility, as mentioned earlier (Fazio et al., 1982; Experiment 3), and attitude-behavior consistency. The latter evidence is provided by an experiment in which repeated attitudinal expression increased the correspondence between attitudes toward a set of intellectual puzzles and subsequent behavior involving those puzzles (Fazio et al., 1982, Experiment 4).

Thus, although past findings are consistent with the hypothesis that attitude accessibility acts as a moderator of attitude-behavior consistency, no single investigation has examined this postulated relation directly. The present study does so by simultaneously assessing attitudes and the accessibility of those attitudes and then assessing relevant perceptions and relevant behavior at later points in time. Attitudes that are highly accessible from memory are hypothesized to be more predictive of subsequent perceptions of the attitude object and subsequent behavior toward the attitude object than are attitudes characterized by relatively poor accessibility.

In the present investigation, attitude accessibility was measured via the latency of response to an attitudinal inquiry. Hence, it is important to review what is known about this mea-

sure. First, as indicated by the research involving repeated attitudinal expression, latency of response to an attitudinal inquiry does appear to index the strength of an object-evaluation association satisfactorily. Second, the latency measure appears to be a fairly good approximation of the likelihood of automatic activation of the evaluation upon mere observation of the attitude object. Experiments have shown that attitude objects preselected on the basis of an individual's having responded quickly to an attitudinal inquiry are more likely to be activated automatically upon subsequent presentation of the attitude object than are attitudes characterized by relatively slow latencies of response to an attitudinal inquiry (Fazio et al., 1986). Thus, how long it takes to respond to an attitudinal inquiry is reflective of the likelihood that the attitude will be activated spontaneously upon one's encountering the attitude object.

The specific latency measure used in the present research differs only slightly from the operationalization involved in the research upon which the preceding inferences are drawn. In the previous work, the response whose latency was measured involved a dichotomous judgment. For example, upon presentation of an attitude object, subjects would press either a control button labeled *good* or one labeled *bad* as quickly as possible. In the present investigation, we were interested in simultaneously obtaining a scalar measure of the attitude and the response latency. Subjects heard a tape-recorded attitude statement and, as quickly as possible, responded by pressing one of five buttons labeled *strongly disagree* to *strongly agree*.

Pilot Experiment

Given this desired modification, we were somewhat concerned about the extent to which response latency would still reflect the strength of the object-evaluation association. Hence, we conducted a preliminary experiment, modeled after that by Powell and Fazio (1984), involving the repeated expression manipulation. Fifty-five subjects expressed attitudes toward each of three target issues a total of three times and did not evaluate another three target issues. The target issues that were used concerned gun control, school prayer, and the United Nations as one set, and Reaganomics, the space program, and mandatory retirement age as the other set. Which set of issues comprised the repeated expression versus control items was counterbalanced across subjects. Each time that an issue appeared on the questionnaire it was evaluated with respect to a different semantic differential scale. For example, subjects might have evaluated gun control on a support/oppose scale, then on a beneficial/harmful scale, and so on. After completing the questionnaires, subjects participated in the response time task. Response latencies were affected by the repeated expression manipulation. Subjects were significantly faster at indicating the extent of their agreement or disagreement with attitudinal statements that concerned issues toward which they had repeatedly expressed their attitudes ($M = 2.65$ s) than statements that concerned issues toward which they had not ($M = 3.28$), $t(54) = 3.55, p < .001$. This finding suggests that increasing the number of response options from two to five did not affect the sensitivity of the latency measure as an indicant of the strength of the object-evaluation association.

Overview

The present investigation concerned attitudes, perceptions, and behavior relevant to the 1984 presidential election. Specifically, both attitudes toward each of the candidates, Reagan and Mondale, and the accessibility of those attitudes were assessed for a large sample of townspeople in the summer of 1984. The perception and behavior measures were collected months later. The perception measure concerned respondents' judgments of the performance of the candidates during the nationally televised debates. The behavior measure was collected by telephoning respondents within a few days after the election and asking them to indicate whether they had voted in the election and, if so, for whom.

It was predicted that individuals whose attitudes toward a candidate were relatively accessible, that is, individuals who were able to respond relatively quickly to the attitudinal inquiry, would display perceptions of debate performance that were more congruent with their attitudes than would individuals whose attitudes were marked by relatively low accessibility, that is, those who responded relatively slowly to the attitudinal inquiry. Such differential selective processing of the debates and, although not measured, of other information about the candidates that became available during the course of the campaign, was expected to affect the stability of respondents' attitudes. As a result, the likelihood that voting behavior would be congruent with the attitude scores obtained months earlier also was expected to be moderated by the accessibility of the attitude.

Method

Subjects

A total of 245 voting age residents of the Bloomington, Indiana area participated in the initial part of the study. Twenty-five of these individuals responded to an advertisement in the local newspaper. Another 16 people were recruited and interviewed at the public library. The majority of the sample, the remaining 204 individuals, were shoppers at a local mall who agreed to participate in a political survey. The subjects were paid \$3.00 for participating in the survey. All interviews were conducted during June and July of 1984. Participants were interviewed either singly or, more commonly, in pairs.

Of these 245 respondents, 136 provided perception data in the manner described later and 153 provided usable data regarding their voting behavior. Because occasional missing values exist within the subsample of respondents for whom perception or voting data were available, the number of observations involved in the various analyses that were conducted is not always consistent. Sample sizes or degrees of freedom are reported for each analysis that was conducted.

Procedure

The initial part of the study was described to participants simply as a political survey. No mention was made of the experimenters' affiliation with the psychology department. The survey consisted of 25 attitudinal statements recorded on a cassette tape. Subjects were instructed to listen to each statement and indicate the extent of their agreement with the statement by pressing one of five buttons labeled *strongly agree*, *agree*, *don't care*, *disagree*, and *strongly disagree*. Subjects were instructed to respond as quickly as possible while being sure that their response accurately reflected their opinion on each issue. Each recorded statement

was preceded by a warning signal, the word *ready*, to ensure the respondents' full attention. A 15-s interval separated each statement on the tape.

The apparatus that was used for this survey was specially designed for the investigation. It was a battery-powered, portable unit consisting of a Timex-Sinclair microcomputer, a two-channel cassette recorder, and two subject stations. The attitudinal statements and the *ready* signals were recorded on one channel of the tape. At the end of each statement, an electronic marker was recorded on the second channel. This marker served as a signal to the microcomputer to begin timing. Participants responded via a five-button control box. Two such response stations were attached to the apparatus. Subjects' responses stopped the timing. Both the responses and the response latencies (to the nearest millisecond) were recorded by the microcomputer.

The first five statements were intended to serve as practice items to acquaint subjects with the procedure. The experimenter monitored the subjects' performance during these trials to ensure that subjects did understand the procedure. Of the remaining 20 statements, 5 were factual items¹ (e.g., "The capital of Indiana is Terre Haute") and 15 were opinion items concerning attitudes toward such issues as school prayer, gun control, and nuclear power plants in addition to the two major-party candidates for the presidency. These two critical statements were "A good president for the next 4 years would be Ronald Reagan" and "A good president for the next 4 years would be Walter Mondale".²

When participants had finished, they were asked to complete a payment receipt, which involved their indicating their names, addresses, and telephone numbers. It was in this way that the information necessary to contact the respondents for the next two phases of the investigation was obtained.

The next phase concerned judgments of the candidates' performances during the nationally televised debates. The first debate involved the presidential candidates and was held on October 7; the second involved the vice-presidential candidates and was held on October 11. It was judgments of these two debates that served as our perception measures. A third debate in the series occurred on October 21, but was not included in our questionnaire because we were concerned that individuals might not complete and return the questionnaire prior to their actual casting of a vote on election day.

The day after the second debate, subjects were mailed a letter from the Political Behavior Research Laboratory on psychology department letterhead. (If two or more members of a household had participated in the initial survey, only one was sent this letter.) The letter asked for help in a study being conducted concerning public perceptions of the performance of the participants in the two debates that had been held thus far. It further explained that if individuals would complete and return the enclosed stamped postcard by October 25, they would receive a check for \$2.00. In addition, subjects were urged to complete the postcard questionnaire regardless of whether they had only read or heard

¹ These factual fillers were included with the hope that they might provide a baseline measure of how quickly individuals generally respond to a query and thus serve to reduce some of the measurement error involved in latency indications of attitude accessibility. However, response latency to the factual items did not correlate substantially with latency to either of the target items. The average correlations of the factual latencies with the Reagan latency and the Mondale latency were a mere .186 and .174, respectively. Furthermore, the average interitem correlations among the latencies to the 15 opinion issues was an insubstantial .189. Thus, latencies of response within this data set appear to have been very content specific.

² The somewhat awkward wording of these statements was necessitated by a desire to have the name of the candidate appear at the end of the statement, which served as the location of the marker on the second channel of the tape that started the timing.

about the debates or whether they had actually watched the debates. The postcard contained an item concerning the presidential debate. Subjects were asked to endorse one of five statements: "Reagan was much more impressive," "Reagan was slightly more impressive," "The two candidates performed equally well," "Mondale was slightly more impressive," or "Mondale was much more impressive." A similarly worded item concerned the vice-presidential debate. In addition, subjects were asked to indicate whether they had watched each debate. Of the 216 letters that were mailed, 136 responses were received.

The final phase of the investigation concerned voting behavior. Beginning the day after the election, an attempt was made to contact by telephone all the individuals who had participated in the initial survey. One hundred sixty-three individuals were reached and were asked whether they had voted and, if so, for whom. Eight of these people chose not to reveal their votes. Two other respondents had voted for candidates other than Reagan or Mondale and their data were not included in subsequent analyses.

Results

Presentation of the results will be divided into two major sections. We will consider first the relations between attitudes and perceptions and between attitudes and voting behavior among the respondents as a whole. We then will turn our attention to tests of the hypotheses and to how the overall relations vary as a function of attitude accessibility.

Relations Within the Overall Sample

As is to be expected, attitudes toward Reagan and Mondale were negatively correlated, $r(239) = -.657, p < .001$.³ Response latencies for the two questions inquiring about Reagan and Mondale correlated only moderately, $r(239) = .273, p < .001$. The average latency for the Reagan item ($M = 1.983$ s) did not differ significantly from the average latency for the Mondale question ($M = 1.954$), $t < 1$, suggesting that the strength of object-evaluation associations for the two candidates was roughly equivalent within the sample.⁴

The attitude-perception relation. It is commonly believed that pre-existing attitudes toward the candidates color viewers' judgments of the candidates' performances during the debates. The data provide clear support for this belief. Attitude toward Reagan and attitude toward Mondale were each predictive of respondents' judgments of performance during the presidential debate. The upper portion of Table 1 presents the relevant correlation coefficients. On the assumption that attitudes toward the presidential candidates also would be relevant to the other member of the respective ticket, correlations were also computed concerning the performance of the vice-presidential candidates during their debate. Selective processing of candidate performance is again evident (see Table 1). The more positive the attitude toward Reagan, the more positively the performance of the Republican vice-presidential candidate, George Bush, was judged relative to the performance of the Democratic candidate, Geraldine Ferraro. Likewise, individuals with positive attitudes toward Mondale were more likely to judge Ferraro's performance to have been better than Bush's than were individuals with negative attitudes toward Mondale. Finally, an overall perception measure involving the sum of respondents' judgments regarding the two debates was also examined and revealed similar congruency between respondents' attitudes

Table 1
Correlations Between Attitudes and Perceptions and Attitudes and Voting Behavior

Sample and measure	Attitude toward		
	Reagan	Mondale	
Perceptions			
All respondents			
Presidential debate	.474 (134)	.432 (134)	<1
Vice-presidential debate	.536 (134)	.398 (134)	2.21**
Both debates	.605 (134)	.496 (134)	1.88*
Watchers only			
Presidential debate	.458 (101)	.436 (101)	<1
Vice-presidential debate	.538 (84)	.358 (84)	2.28**
Both debates	.566 (74)	.486 (74)	<1
Voting behavior			
All respondents	.710 (150)	.565 (150)	2.96***
Voters only	.782 (121)	.632 (121)	3.28***

Note. The number of respondents upon which any given correlation is based is listed in parentheses. The t value refers to the significance test of the difference between two dependent correlation coefficients.

* $p < .07$. ** $p < .05$. *** $p < .005$.

and judgments of the debate performances of the candidates. The pattern of relations that was observed on these three perception measures was essentially the same when we restricted the analyses to only those respondents who had indicated watching each debate (see Table 1).

Also presented in the upper portion of Table 1 is the t value of a statistical test of the difference between two correlation coefficients within the same sample (Cohen & Cohen, 1975). With respect to each of the three perception measures, when considering either all the respondents or only those who reported watching the debates, attitude toward Reagan was more predictive of judgments of debate performance than was attitude toward Mondale. In three of the six cases, this difference approached or reached statistical significance.

The attitude-voting behavior relation. Of the 153 individuals who provided usable data regarding their voting behavior, 29 indicated that they had not voted. In one set of analyses that was conducted, those 29 individuals who indicated they had not voted were assigned a score of 0, and those who voted for Rea-

³ All significance levels reported in this article are two-tailed.

⁴ In order to compare response latencies to the two questions, it was necessary to measure precisely the locations of the timing markers for the two questions. Using a storage oscilloscope, it was possible to determine the interval between the marker and the end of the acoustic signal for each statement to the nearest millisecond. These constants then were added to the recorded latencies. Thus, the response latencies reported refer to the interval between the precise conclusion of the acoustic signal and the subjects' responses.

gan or Mondale were assigned scores of +1 or -1, respectively. Thus, these analyses involved all the respondents. The correlation between each attitude measure and voting behavior is presented in the lower portion of Table 1. Despite having been assessed over 3 months prior to the election, attitudes toward Reagan and Mondale were each highly predictive of voting behavior. However, attitude toward Reagan was significantly more predictive of voting behavior than was attitude toward Mondale, suggesting that attitude toward Reagan might have been a more important determinant of voting behavior than attitude toward Mondale.

An additional set of analyses was performed only on the subsample of respondents who reported having voted. These analyses revealed similar but somewhat stronger relations between attitudes and voting behavior. Once again, the correlations between attitude toward Reagan and voting and between attitude toward Mondale and voting differed significantly, implying that feelings toward Mondale were less critical in determining how the respondents voted than were evaluations of Reagan.

Relations as a Function of Attitude Accessibility

Division into high and low accessibility groups. Findings from previous research (Powell & Fazio, 1984) have indicated the existence of a small, but nonetheless statistically reliable, relation between attitude extremity and latencies of response to an attitudinal inquiry. In the present case, attitude extremity, scored as deviation from the neutral point, was associated with faster response latencies with respect to Reagan, $r(240) = .531$, $p < .001$, and to Mondale, $r(242) = .532$, $p < .001$.

As a consequence of this relation between attitude extremity and latency, dividing subjects at the overall median response time with respect to each candidate would have resulted in more extreme attitudes in the high accessibility group than in the low accessibility group. In order to ensure that any inferences drawn about attitude accessibility were not confounded by attitude extremity, a much more conservative procedure was followed in classifying subjects into high and low accessibility groups. Median splits were performed at each and every response level for each of the two attitudes in question. For example, in considering the accessibility of attitudes toward Reagan, the latencies of all subjects who had responded *strongly agree* to the item were examined. Those whose latency was faster than the median for this subsample were assigned to the high accessibility group and those with latencies slower than the median were assigned to the low accessibility group. The same procedure was followed for each of the other response levels. As a result, attitude distributions in our high and low accessibility groups were perfectly equivalent, and we could examine whether knowledge of attitude accessibility enhances predictive power over and above any effect of attitude extremity.⁵ Such division into high and low accessibility groups was conducted anew on the specific set of respondents who provided data for each perception and voting measure that was examined.

The attitude-perception relation. The hypothesis that attitude accessibility moderates the extent to which perceptions of the candidates' debate performance are congruent with attitudes toward the candidates was examined by comparing attitude-perception correlations within high and low accessibility

groups. Those individuals who had responded to the questionnaire regarding the debates were assigned to high and low accessibility groups in the manner just described. This was done for attitudes toward each of the candidates. The correlations that were computed once again involved judgments of the performance of the candidates in the presidential debate, judgments of the vice-presidential debate, and the overall measure mentioned earlier. The upper portion of Table 2 displays the correlation coefficients within each group, along with the z value of the statistical test of the difference between the correlations in the high and low accessibility groups, for both the sample of all respondents and the subsample that reported viewing the debate(s) on television. In each and every case, the attitude-perception correlation is stronger in the high accessibility group than in the low accessibility group. Differences as a function of attitude accessibility were particularly evident with respect to attitude toward Reagan, especially when considering the vice-presidential debate. It was in such cases that the differences approached or achieved a conventional level of statistical significance.

The stronger effects of attitude accessibility for perceptions of the vice-presidential debate than for judgments of the presidential debate might have been a consequence of differential ambiguity. Whereas the media seemed to have viewed Mondale as the clear victor in the presidential debate, the vice-presidential debate was viewed much more evenly. Our own subjects appear to have concurred. The average rating of the outcome of the presidential debate on the 5-point scale was 2.27, which was reliably different from the neutral point value of 3, $t(135) = 7.14$, $p < .001$, in the direction of Mondale having performed more impressively than Reagan. In contrast, the vice-presidential debate was viewed as more of a toss-up. Although the average rating of 3.21 did reveal a preference for Bush, $t(134) = 1.98$, $p = .05$, the extremity of this average judgment of the debate outcome was significantly less than had been the case for the presidential debate, $t(134) = 4.41$, $p < .001$. If, as these data suggest, the outcome of the presidential debate was less ambiguous than the vice-presidential debate, then it is not surprising that attitude accessibility appeared to exert a larger role with respect to the vice-presidential debate than the presidential debate.

With respect to attitude toward Mondale, a difference between high and low accessibility groups was evident consistently across the various samples and measures but in no case was the difference large enough to achieve statistical significance. As we shall see, this pattern of strong effects of accessibility for attitude

⁵ Our procedure for controlling for attitude extremity involves observed attitude scores that obviously are not a perfect indication of true attitudes. Given that attitudes are measured with some error, it should be noted that underlying extremity differences may persist even when we equate individuals on the extremity of their measured responses. Ideally, we would have liked to control for error-free extremity by measuring extremity in multiple ways and controlling for an extremity latent variable. However, assessing the relevant attitudes in multiple ways was not feasible within the context of the present field situation. Thus, we focused on controlling for measured attitude extremity, which is clearly preferable to not attempting any control whatsoever for attitude extremity.

Table 2
Correlations Between Attitudes and Perceptions and Between Attitudes and Voting Behavior Within High Accessibility (HA) and Low Accessibility (LA) Groups

Sample and measure	Attitude toward					
	Reagan			Mondale		
	LA	HA	<i>z</i>	LA	HA	<i>z</i>
Perceptions						
All respondents						
Presidential debate	.471 (67)	.483 (68)	<1	.416 (69)	.468 (67)	<1
Vice-presidential debate	.409 (67)	.660 (67)	2.02**	.380 (69)	.448 (66)	<1
Both debates	.537 (67)	.673 (67)	1.23	.473 (69)	.546 (66)	<1
Watchers only						
Presidential debate	.394 (50)	.529 (51)	<1	.437 (51)	.438 (50)	<1
Vice-presidential debate	.410 (42)	.679 (42)	1.73*	.312 (42)	.403 (42)	<1
Both debates	.404 (37)	.738 (37)	2.13**	.381 (37)	.587 (37)	1.13
Voting behavior						
All respondents	.601 (76)	.816 (75)	2.73***	-.482 (76)	-.616 (76)	1.17
Voters only	.663 (61)	.891 (61)	3.39****	-.563 (62)	-.658 (61)	<1

Note. The number of respondents upon which any given correlation is based is listed in parentheses. The *z* value refers to the significance test of the difference between two independent correlation coefficients.

* $p < .10$. ** $p < .05$. *** $p < .01$. **** $p < .001$.

toward Reagan and weaker effects for attitude toward Mondale was evident consistently in the data set. More shall be said about this pattern following the presentation of additional results.

An additional set of analyses was performed to examine the extent to which attitudes toward Reagan and Mondale jointly predicted perceptions. The multiple correlation using the two attitude measures as joint predictors of perceptions was computed within high and low accessibility groups. To create two accessibility groups with equivalent attitude distributions, the sample of individuals who had provided data on a given perception measure was first divided into a series of subsamples. Any given subsample consisted of individuals with identical responses to the question concerning Reagan and identical responses to the question concerning Mondale. For example, all individuals who had responded *strongly agree* to the Reagan item and *strongly disagree* to the Mondale item comprised one subsample; all who had responded *agree* to the Reagan item and *strongly disagree* to the Mondale item comprised another subsample, and so on. The average latency of response to the two attitudinal inquiries was computed for each respondent. Within each subsample, the median average latency served as the division point. Those whose average latency was faster than the median within the subsample were assigned to the high accessibility group, and those whose average latency was slower than the subsample median were assigned to the low accessibility group. Although cumbersome, this procedure ensured that any differences that were observed as a function of accessibility were not confounded by differential attitude distributions in the two groups.

The results of these analyses are depicted in the upper portion of Table 3. The multiple correlations predicting perceptions from attitudes toward Reagan and Mondale were stronger in the high accessibility group than in the low. In two of the cases, these differences approached statistical significance (see Table 3).

The attitude-voting behavior relation. The hypothesis concerning the moderating role of attitude accessibility was examined by comparing the correlation between each attitude and voting behavior for groups displaying high versus low accessibility with respect to each attitude. Those individuals who had provided usable voting behavior data were divided into high and low accessibility groups in the manner described earlier. The correlation coefficients are presented in the lower portion of Table 2. In all cases, the relation between attitude and behavior is stronger, just as predicted, among subjects characterized by high attitude accessibility than among those characterized by low attitude accessibility. This was particularly true with respect to attitude toward Reagan. For both the entire sample and the subsample including only the voters, respondents whose attitudes toward Reagan were highly accessible displayed significantly greater attitude-behavior consistency than those whose attitudes were relatively less accessible. Indeed, among the voters in the high accessibility group, nearly 80% of the variance in voting behavior, as compared with 44% among low accessibility voters, was predicted by attitude toward Reagan. The high correlation evident among respondents with a highly accessible attitude toward Reagan is all the more astounding when one keeps in mind that the

Table 3
Multiple Correlations Using Attitudes Toward Reagan and Mondale as Joint Predictors of Perceptions and of Voting Behavior Within High and Low Accessibility Groups

Sample and measure	Accessibility group		z
	Low	High	
Perceptions			
All respondents			
Presidential debate	.440 (67)	.580 (68)	1.08
Vice-presidential debate	.432 (67)	.658 (67)	1.86*
Both debates	.530 (67)	.721 (67)	1.81*
Watchers only			
Presidential debate	.446 (51)	.558 (50)	<1
Vice-presidential debate	.488 (42)	.623 (42)	<1
Both debates	.513 (37)	.669 (37)	1.00
Voting behavior			
All respondents	.637 (75)	.823 (75)	2.48**
Voters only	.723 (61)	.879 (60)	2.46**

Note. The number of respondents is listed in parentheses. The z value refers to the significance test of the difference between two independent correlation coefficients.

* $p < .075$. ** $p < .025$.

attitude was measured via a single item some 3½ months prior to the election.

As with the findings concerning the attitude-perception relation, the moderating role of attitude accessibility was less apparent when considering attitude toward Mondale. Although the correlations between attitude toward Mondale and voting were stronger in the high than in the low accessibility groups, the differences were not as large as had been found for attitude toward Reagan and were not statistically significant.

Attitudes toward Reagan and Mondale as joint predictors of voting behavior were examined in the same way as had been done with respect to the perception measures. As before, subsamples of individuals who had responded identically to the Reagan question and identically to the Mondale question were divided into high and low accessibility groups on the basis of the subsample's median average response latency to the two questions. The multiple correlations predicting voting behavior from the two attitude measures was significantly higher in the high accessibility group than in the low for both the sample that included all respondents and the sample that included only voters. The lower portion of Table 3 presents the within-groups multiple correlations and the significance tests.

Discussion

The results of this investigation essentially confirmed the initial predictions. The accessibility of the attitude from memory

was found to moderate both the attitude-perception and the attitude-behavior relations. Individuals with relatively accessible attitudes, as indicated by relatively fast latencies of response to the attitudinal inquiry, displayed greater selective perception as a function of those attitudes and greater attitude-behavior consistency than did individuals with less accessible attitudes.

One unexpected finding concerned the relative weakness of the results when considering attitude toward Mondale singly. Although this attitude measure was consistently more predictive of subsequent perceptions and behavior among the high accessibility respondents than among the low, the differences were small and not statistically reliable. What may account for the lesser robustness of the results with respect to attitude toward Mondale than with attitude toward Reagan?

When considering attitude-perception and attitude-behavior relations within the overall sample, it was observed that attitude toward Mondale tended to be less predictive than attitude toward Reagan. This suggests that Mondale and attitudes toward him were relatively less important in determining perceptions of the debates and voting than were Reagan and attitudes toward him. How individuals felt toward Reagan appears to have influenced how they voted more so than how they felt about the alternative. Such differential influence may be typical of elections that involve an incumbent. Indeed, political scientists have shown that voting in such cases can be interpreted as a retrospective rewarding or punishing of the incumbent based on satisfaction or dissatisfaction with his first term (Fiorina, 1981; Key, 1966). If Mondale and attitudes toward him were less relevant to judgments of the outcomes of the debates and to the decision for whom to vote, then it is not surprising that consideration of the accessibility of this less relevant attitude did not produce robust benefits in the ability to predict the subsequent judgments and behavior.

The weakness of the results with respect to attitude toward Mondale should not detract from the strength and clarity of the other findings. The analyses involving attitude toward Reagan and the analyses using attitudes toward Reagan and Mondale as multiple predictors each revealed a substantial moderating role of attitude accessibility. As such, they provide excellent support for the hypotheses derived from the proposed model of the attitude-behavior process (Fazio, 1986). Just as suggested by the model, attitude accessibility acts as a determinant of both the attitude-perception and the attitude-behavior relations.

It should be noted, however, that within the context of the model perceptions that have been biased by an activated attitude are regarded as an immediate precursor of behavior. This is because the model is intended to address behavior that flows from one's definition of an event involving the attitude object. How one defines the event is viewed as the determinant of behavior. The critical issue is whether that definition is influenced by attitude, which in turn depends on whether the attitude is activated from memory on observation of the attitude object.

The present results provide support for the model's assertion that selective perception depends on the accessibility of the attitude from memory. Recent research documents that latency of response to a direct attitudinal inquiry is at least roughly indicative of the likelihood that the attitude will be activated automatically upon mere presentation of the attitude object (Fazio et al., 1986). In the present case, individuals with accessible attitudes

(as indicated by relatively fast latencies) were more likely to judge the performance of the candidates during the debates in a manner that was congruent with their attitudes. Such individuals held attitudes that presumably involved relatively strong object-evaluations associations. Consequently, their attitudes were probably more likely to be activated while they were viewing the debates and, hence, were more likely to color their perceptions of the outcomes of the debates. However, unlike the context addressed by the postulated attitude-behavior process model, these perceptions were not an immediate precursor of the voting behavior of ultimate interest in the present case.

Instead, the influence of attitude accessibility upon the consistency between attitudes, as assessed months earlier, and voting behavior seems to have been a function of the stability of those attitudes. The act of voting in a presidential election is clearly a reasoned, intentional action in which individuals would actively retrieve the relevant attitudes from memory if they had not been activated automatically. Thus, there is no need for attitudes to be highly accessible from memory for the attitudes to exert an influence upon the act of voting. Indeed, most voters enter the voting booth with a definite intention to vote for a particular candidate. However, whether the attitudes that form the basis for the behavioral intention are equivalent to those assessed months earlier does depend on the accessibility of those initial attitudes.

Initial attitudes characterized by high accessibility were likely to have biased people's interpretations of any information about the candidates that came to their attention during the course of the campaign, including the outcome of the debates. The present data indicate that such selective processing was less likely for individuals whose attitudes were relatively less accessible. The amount of selective processing, as in the judgments of the debates, is apt to have determined the persistence of the attitude over time. Thus, greater selective processing on the part of those individuals with relatively accessible attitudes is likely to mean that their final voting decisions were affected by attitudinal positions more equivalent to the ones that they held months earlier than was the case for individuals with less accessible attitudes.

This reasoning implies that an association should exist between attitude-perception congruency and attitude-behavior correspondence. That is, individuals who held initial attitudes that were unlikely to bias their interpretations of subsequent information should display less attitude-behavior correspondence because those attitudes were potentially more subject to modification during the course of the campaign. Additional analyses of the present data revealed such an association. For the subset of respondents who had provided both perception and voting information (82 individuals when considering only voters, and 95 when also including those who reported not having voted), we computed two indices. The absolute value of the difference between standardized attitude scores and standardized perception scores served as an index of discrepancy between attitudes and perceptions. Similarly, the absolute value of the difference between standardized attitude scores and standardized voting scores served as an index of the discrepancy between attitudes and behavior.⁶ These two indices were consistently and reliably associated. Regardless of whether the attitude examined concerned Reagan or Mondale, regardless of

which of the three perception measures was used, and regardless of which of the two voting measures was examined, a significant correlation between attitude-perception and attitude-behavior discrepancies was apparent. The 12 correlation coefficients ranged from .264 to .523, with the average being .381 (all p s < .02).⁷ Thus, the less the individual's attitude promoted selective processing of the debates, the less likely the individual was to vote in a manner that was consistent with that initial attitude.

These findings serve to illustrate the relevance of attitude accessibility and the likelihood of automatic attitudinal activation to behavioral decisions that are not themselves the immediate outcome of automatic processes but instead stem from conscious and deliberative reasoning. Fazio (1986) has discussed automatic versus controlled processing (see Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977) models of the attitude-behavior relation and has offered some thoughts about attempts to integrate the two into a more comprehensive model. The present investigation illustrates one such linkage. Voting behavior is most likely the result of a controlled process in which individuals reflect and arrive at a behavioral intention, conceivably in a manner consistent with Ajzen and Fishbein's (1980) theory of reasoned action. Yet, the sort of automatic processes that the model proposed by Fazio and his associates (Fazio, 1986; Fazio et al., 1983) focuses on are relevant to such decisions. Just as postulated by the automatic process model, a relatively accessible attitude is likely to bias interpretations of subsequently received information because it is likely to be activated automatically upon observation or mention of the attitude object. As a result, a relatively accessible attitude is apt to remain more persistent over time than one that is less accessible. Such greater persistence implies that the attitudinal position that is considered at the time that the controlled decision is made will be more equivalent to the initial position in the case of accessible than in the case of relatively inaccessible attitudes.

Our interpretation of the present findings rests on the validity of latency of response to an attitudinal inquiry as a measure of the chronic accessibility of the attitude. As indicated earlier, this measure has been found to relate to the likelihood of automatic activation of the attitude upon exposure to the attitude object (Fazio et al., 1986). Attitude objects concerning which an individual can indicate an attitude relatively quickly when faced with a direct inquiry are also likely to activate the attitude from memory automatically upon their presentation. In contrast, attitude objects for which response latencies to an inquiry are relatively slow are also unlikely to produce automatic attitudinal activation upon their presentation. Thus, we can be confi-

⁶ Just as one would expect, comparison of mean index scores in high versus low accessibility groups confirmed the findings reported earlier concerning the differences in correlation coefficients in the high versus low groups. Index scores were generally lower, indicating less discrepancy between attitudes and perceptions and between attitudes and behavior, within the high than within the low accessibility groups.

⁷ This relation between attitude-perception discrepancy and attitude-behavior discrepancy also was evident within the high (average $r = .314$, $p < .05$) and within the low (average $r = .398$, $p < .01$) accessibility groups.

dent that the latency measure that was used in the present investigation does reflect the chronic accessibility of the attitude.

Nevertheless, the correlational nature of the present investigation should not be overlooked. Attitude accessibility may be related to other qualities of the attitude that are reflective of attitudinal "strength," such as attitude centrality, certainty, and affective-cognitive consistency (see Raden, 1985, for a recent review of such strength-related attitude dimensions). Indeed, precisely such covariation among the various indices of attitudinal strength has been hypothesized (e.g., Fazio et al., 1982; Fazio, 1986). It has been suggested that the attitudinal qualities that have been identified as moderators of the attitude-behavior relation all may do so because they reflect the strength of the object-evaluation association and, hence, in terms of the attitude-behavior process, the likelihood that the attitude will be activated from memory when the attitude object is encountered. Furthermore, it has been found that attitude accessibility is affected by the manner of attitude formation (Fazio et al., 1982; Fazio et al., 1983); attitudes based on direct behavioral experience are more accessible from memory than are those based on indirect experience. Also, attitude accessibility has been found to relate to the personality construct of self-monitoring (Snyder, 1974); low self-monitoring individuals possess attitudes that are generally more accessible from memory than do high self-monitors (Kardes, Sanbonmatsu, Voss, & Fazio, in press). Both the manner of attitude formation and self-monitoring have been shown to moderate the attitude-behavior relation.

Thus, although we can be confident that our latency measure reflects attitude accessibility, a number of additional variables may be related to our classification of individuals in the present investigation as possessing attitudes of either high or low accessibility. Which single dimension or combination of dimensions is causally "responsible" for the moderating effects that were observed cannot be discerned given the correlational nature of the investigation. What we see as the advantage of focusing upon the construct of attitude accessibility is its clear relevance to the issue of the *process* by which attitudes influence perceptions and behavior. Unlike other indicators of the "strength" of an attitude, attitude accessibility operates at an information processing level of analysis. Nonetheless, the present findings are most appropriately viewed as simply *consistent* with the implications of the theoretical model of the attitude-behavior process that has been proposed. As such, they provide a real-world corroboration of past experimental findings that have indicated that the strength of the object-evaluation association (and, hence, attitude accessibility) has a causal impact on attitude-behavior consistency (Fazio et al., 1982, Experiment 4). Additional experimental work is necessary to isolate the causal influence of attitude accessibility. Such work appears warranted on the basis of the present correlational findings stemming from an important, real-world context.

Regardless of any ambiguity concerning the causal mechanism that might be operating in the present case, two additional, more practical, implications of the findings are worth noting. The data clearly indicate that behavioral prediction can be improved by consideration of the accessibility of respondents' attitudes. Differences as large as 35 percent in the amount of behavioral variance explained by attitude were observed as a function of attitude accessibility. The very simplicity of the la-

tency measure that was used to index attitude accessibility makes it attractive for use in surveys in which one is concerned with the prediction of individuals' behavior from their attitudes. Our findings indicate that such an approach is not only feasible but also beneficial. The accessibility of respondents' attitudes provides an indication of the degree to which attitudes are likely to guide subsequent behavior. Thus, one's ability to predict how a given individual will behave may be enhanced by the simultaneous measurement of attitude and attitude accessibility.

Although far more speculative, the technique also may be useful to a pollster interested not in the prediction of individual behavior but in the drawing of an inference about the future behavior of a population. A pollster who desires to obtain an estimate of the future behavior of some population by assessing the attitudes of a representative sample might achieve a more accurate estimate by also considering the accessibility of the respondents' attitudes. If those attitudes appear to be highly accessible, more faith could be placed in the validity of the sample's attitudes as an estimate of the population's future behavior. If those attitudes appear to involve rather weak object-evaluation associations and, hence, are less accessible, then the sample's attitudes are less likely to constitute a valid estimate of the population's behavior. One can easily imagine conducting research involving a large series of such polls and the collection of population behavioral data, in order to arrive at some weighting system by which a pollster might use the average accessibility of attitudes within a sample as an indication of the degree to which the sample attitudes provide a reasonable estimate of future behavior within the population.

The present data also suggest that the degree to which individual's interpretations of information follow from their attitudes is a function of the accessibility of those attitudes. This, too, has a practical implication. Because relatively inaccessible attitudes seem to promote less selective processing, individuals who possess attitudes of this sort would seem to be more easily swayed by information about the attitude object. It is for such people, as opposed to those with highly accessible attitudes, that persuasive communications have the best chance to be effective agents of attitude change. Consistent with this reasoning, Wood (1982) has found that attitude change in response to a persuasive communication is moderated by the degree to which individuals can rapidly retrieve beliefs about the attitude object from memory. Thus, whether the context be a political campaign, a marketing campaign, or whatever, the maximal use of resources might be made by targeting efforts at individuals whose attitudes are relatively low in accessibility. Especially in a situation in which various demographic variables are associated with attitude accessibility, such targeting would be possible. The measure of attitude accessibility used in the present study—latency of response to an attitudinal inquiry—would appear to provide a feasible means of identifying a target population for whom the campaigner's persuasive efforts might pay off.

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Received November 16, 1985

Revision received February 19, 1986 ■