

# Examination of Psychological Processes Underlying Resistance to Persuasion

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Three modes of resistance to persuasion (biased assimilation, relative weighting of attributes, and minimization of impact) were examined in the context of a longitudinal field study of the Clinton-Lewinsky affair and a lab experiment in the consumer setting. Only two of these modes (biased assimilation and relative weighting) were found to be sensitive to the refutability of the persuasive communication; the effectiveness of the remaining one (minimization of impact) was not influenced by this factor. Specifically, committed individuals demonstrated biased assimilation in the face of easy to refute negative information, but this mode of resistance decreased in its effectiveness when the information became difficult to refute. The relative-weighting mode of resistance (decreasing the weight given to attributes influenced by the negative information and increasing the weight given to favorably evaluated attributes), in contrast, emerged only in the face of difficult to refute information, apparently when biased assimilation decreased in its effectiveness. The impact mode of resistance was fairly effective in the face of both easy and difficult to refute information. That is, committed respondents attempted to isolate the impact of the negative information to the target attribute, minimizing its spillover to the other attributes in the attitudinal representation in response to both easy and difficult to refute messages.

That individuals with strong attitudes resist attitude change is a well-accepted finding in the consumer behavior and psychology literature (e.g., Eagly and Chaiken 1995; Haugtvedt and Petty 1992; Petty and Cacioppo 1986). However, relatively little attention has been given to the psychological processes that mediate resistance to persuasion (Ditto and Lopez 1992; Ditto et al. 1998; Eagly and Chaiken 1995; Edwards and Smith 1996; Kunda 1990). Observing this lack of attention to processes, Eagly and Chaiken (1995) recently issued a call to investigators to “understand the specific psychological mechanisms that enable people to thwart persuasive efforts” (p. 422). They suggest that, at this point, discussion of such processes “must necessarily be speculative, given the limited amount of research that has addressed mediating processes.” Our research attempts to replace this speculation with theory and data.

An understanding of resistance processes is important not only from the theoretical standpoint of understanding the dynamics of persuasion, but it also has substantial practical implications for marketers. For instance, Kunda (1990)

argues that it is critical for helping people overcome dysfunctional resistance (e.g., people who are not persuaded to change their behavior in response to messages pointing to the dangers of smoking or drugs). Further, Ahluwalia, Burnkrant, and Unnava (2000) suggest that this understanding is important for evaluating the value of a strong brand attitude from a marketing perspective. They argue that the value of loyalty (a dimension of attitude strength) to a company can be measured in terms of the modes of resistance it generates in response to the counterattitudinal information.

An understanding of the cognitive mechanisms that mediate message persuasiveness can provide a starting point for understanding resistance to persuasion. Fishbein and Ajzen's (1981) expectancy-value approach provides a theoretical framework for examining such mechanisms. Three mechanisms mediating message persuasiveness are discussed in this theory. First are the *message acceptance* processes that determine the extent to which the perceiver accepts or denies the target message (e.g., source derogation, argument scrutiny, biased memory search). These processes have been extensively investigated in past research (e.g., Anand Keller and Block 1996; Ditto et al. 1998; Eagly and Chaiken 1995; Haugtvedt et al. 1994; Kunda 1990; Lord, Ross, and Lepper 1979) and will be termed *biased assimilation* in this research. A second mechanism, which has received relatively scant attention in the literature, is *impact*. Impact effects occur to the extent that persuasive

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arguments influence recipients' beliefs relating to attributes not directly addressed by the message. For instance, exposure to a message focusing on the dishonesty of a political candidate may lead the perceiver to infer that he is also immoral. Individuals could therefore resist negative information by isolating its impact to the target attribute, thereby minimizing its potential damage to the rest of the attitudinal representation. This mechanism will be referred to in this article as *minimizing impact*. Finally, a third mechanism, which has received limited empirical attention in past research (see Lutz [1975] and MacKenzie [1986] for exceptions), relates to *evaluation* of the attributes. For instance, exposure to the new message may make the recipient reassess the value (i.e., the relative desirability) of honesty in evaluating a political candidate. Therefore, attitude change can also be resisted by decreasing the weight given to dissonant cognitions while increasing the relative importance of attitude-consistent beliefs. This mechanism is referred to as *attribute weighting* in this article.

While the first set of processes (argument scrutiny, source derogation, and so on) deals with the acceptance/denial of the counterattitudinal information itself, the latter two (minimizing impact and attribute weighting) extend the focus to beliefs and evaluations relating to other (not included in the message) attributes in the attitudinal representation. Both types of processes taken together are likely to determine the impact of and resistance to a persuasive message. Since a rather limited amount of research has examined the minimization of impact and attribute weighting processes, a rich array of psychological mechanisms mediating resistance remains unexplored.

In this research, all the above resistance processes will be examined simultaneously. Therefore, it will attempt to provide an integrative framework for understanding how people resist counterattitudinal information. We believe this is the first empirical research to examine all three modes of resistance together. More important, it is the only research study that identifies a factor affecting the use of different modes of resistance (refutability of the information). Identification of such factors is critical to building a richer theory of resistance mechanisms.

These psychological mechanisms were examined in the context of both a longitudinal field study involving a real event (the Clinton-Lewinsky affair) and a controlled laboratory experiment in the consumer setting. The longitudinal field study allowed examination of the different modes of resistance, in a naturalistic setting where people are likely to have strong motivations (Sears 1986). The control in the lab helped rule out alternative explanations and provided a clearer understanding of factors that influence the use of different resistance strategies. The use of two different contexts enhances our ability to generalize the findings to both the product and the political arenas.

The literature review will start with a discussion of motivation and its role in resistance to counterattitudinal information. Hypotheses relating to resistance processes invoked by the motivated individuals will then be discussed.

The discussion will focus on the role of refutability of the counterattitudinal information in determining which resistance processes are likely to be effective. Implications of the findings and directions for future research are discussed.

## MOTIVATION OF THE INDIVIDUAL

People with strong attitudes are likely to resist counterattitudinal information primarily because such information threatens their motives or needs (e.g., Chaiken, Liberman, and Eagly 1989; Festinger 1957; Kiesler 1971; Kunda 1990; Petty and Cacioppo 1986). Chaiken and colleagues (e.g., Chaiken et al. 1989) suggest that individuals holding strong attitudes are likely to be defense motivated instead of accuracy motivated. That is, they may be motivated to form or defend particular attitudinal positions. The processing goal of such perceivers is to confirm the validity of preferred attitudinal positions and resist information that counters the preferred positions or supports nonpreferred positions.

One attitude strength variable that has been closely associated with defense motivation and resistance is commitment (e.g., Chaiken et al. 1989; Kiesler 1971). In fact, the level of resistance induced by a number of other strength variables, such as prior knowledge and importance, has been shown to depend on the level of commitment of the individual toward the target (Wood, Rhodes, and Biek 1995). Therefore, the resistance processes of committed versus non-committed individuals are examined in this research.

## RESISTANCE PROCESSES

As detailed earlier, Fishbein and Ajzen (1981) outline three different mechanisms of resistance: biased assimilation, minimization of impact, and relative weighting of attributes. While past research has focused primarily on biased assimilation, our research will provide a more holistic view of how individuals resist counterattitudinal negative information.

In the following paragraphs we will derive hypotheses relating to the three resistance mechanisms proposed earlier, focusing on the role of one factor (refutability of the information) in determining their use and relative effectiveness. The refutability of the information is influenced by various variables such as its content, that is, the amount of strong and diagnostic information (Anderson 1981; Petty and Cacioppo 1986; Skowronski and Carlston 1989), its level of repetition (Anand and Sternthal 1990), and the ability of the respondents to counterargue it (Petty and Cacioppo 1986). The hypotheses will focus on how the refutability of the negative information is likely to influence the use and relative effectiveness of the different modes of resistance.

### Acceptance Processes: Biased Assimilation

Biased assimilation, or the tendency of individuals to perceive attitude-consistent information as more valid than attitude-inconsistent information, is a robust finding in the

literature (Ditto et al. 1998; Kunda 1990; Lord et al. 1979). One mechanism leading to biased assimilation is the biased memory search by defense-motivated individuals to access hypotheses, inference rules, and instances from past behavior that are most likely to support their desired conclusion (Kunda 1990). These individuals attempt to scrutinize counterattitudinal information more critically than pro-attitudinal information, thereby discrediting its validity (Abelson 1959; Ditto et al. 1998). These biased assimilation processes are likely to lead to higher levels of counterargumentation when individuals are exposed to counterattitudinal (vs. proattitudinal) information, resulting in resistance to persuasion efforts (Eagly and Chaiken 1995; Haugtvedt et al. 1994; Petty and Cacioppo 1986).

However, when counterattitudinal information is difficult to counterargue or refute, even defense-motivated respondents have been known to yield to it (Ditto et al. 1998; Petty and Cacioppo 1986). Therefore, the biased assimilation mode of resistance is likely to decrease in its effectiveness in the face of difficult to refute negative information. Therefore, the first set of hypotheses is as follows:

**H1:** Committed respondents are likely to question the validity of negative information about the target, while low commitment individuals are more likely to accept this information.

**H2:** As the negative information becomes more difficult to refute, the likelihood of committed respondents accepting it increases.

### Evaluation Process: Relative Weighting of Attributes

It appears logical that when an individual is confronted with unwanted information, his or her first line of defense would be a relatively thorough analysis of its validity, consistent with biased assimilation. It is only if this initial analysis suggests that the validity of the information must be accepted (i.e., biased assimilation is not very effective) that the individual is likely to direct attention toward a careful consideration of the implications and relative importance of this information (Ditto and Lopez 1992).

Many writers have made a distinction between denial of fact (i.e., denying the validity of a threatening piece of information) and denial of implication (i.e., accepting the validity of the information but denying its threatening implications or its importance; Janis 1958; Lazarus 1983), most suggesting that individuals attempt the first before resorting to the second. This is primarily because of the rather deliberate and effortful nature of the latter process (Abelson 1959; Festinger 1957) and its relatively lower efficacy as compared to the biased assimilation mechanism. That is, denial of implication or reducing the importance of the negative information does not help reject the information; it can only reduce its impact on the overall evaluation. Thus, this rather deliberate resistance mechanism is likely to be invoked when committed individuals accept the negative information be-

cause of their inability to refute it. Even though this process has been recognized in the literature (Abelson 1959; Festinger 1957; Fishbein and Ajzen 1981), there is little empirical support for it (e.g., see Eagly and Chaiken [1993] for a review).

A committed individual can reduce the importance of the dissonant cognition via two main processes. The first is by giving less weight to the attribute whose belief has changed as a consequence of exposure to the counterattitudinal information. This is similar to the process of "reducing the importance of the dissonant cognition," suggested by Festinger (1957). The second is by increasing the weight given to attitude-consistent attributes, thereby automatically decreasing the relative weight given to dissonant cognitions; that is, the process of "bolstering" proposed by Abelson (1959). In other words, motivated respondents are likely to exhibit a consistency bias in the relative weighting of attributes by reducing the weight given to the attribute(s) that have changed as a result of exposure to the negative information (i.e., are not consistent with the respondent's prior attitudes) and/or increasing the relative weight of the attributes that have not been affected by the negative information (i.e., are consistent with their prior attitudes). No such bias is expected for the low commitment individuals.

Therefore, the next hypothesis is:

**H3:** When exposed to difficult to refute negative information, committed individuals are likely to exhibit a consistency bias in their relative weighting of attributes, while low commitment people are not expected to demonstrate such a bias.

### Impact Processes: Minimization of Spillover

A message can also exert an impact on primary beliefs not explicitly mentioned in the message (Fishbein and Ajzen 1981). Past consumer research demonstrates that when individuals are presented with information about an attribute, they are likely to spontaneously draw inferences relating to other attributes associated with it (Broniarczyk and Alba 1994; Lee and Olshavsky 1995). Consumer inferences are usually based on probabilistic consistency, which implies a causal or correlational relationship between attributes (e.g., inferring quality from price; Broniarczyk and Alba 1994; Dick, Chakravarti, and Biehal 1990). Probabilistic consistency is typically operationalized via interattribute correlations (e.g., Dick et al. 1990). Therefore, a spillover of the negative information would be most likely for attributes highly correlated to the target attribute.

In general, inferencing is likely to occur when consumers perceive the information to be diagnostic (e.g., Broniarczyk and Alba 1994; Dick et al. 1990). Various factors that determine a message's refutability, for example, its strength, extremity, and ambiguity, are also likely to influence its perceived diagnosticity (Hoch and Ha 1986; Lynch, Marmostein, and Weigold 1988; Skowronski and Carlston 1989). Therefore, it can be argued that the more difficult to

refute the information, the more pervasive its spillover or impact. That is, for low commitment individuals exposed to difficult to refute information, the impact may extend to other attributes that are not highly correlated to the target attribute(s).

On the other hand, committed individuals who are motivated to defend their attitudinal position are likely to exhibit a restraint in their inferences, attempting to contain the impact of negative information to the target attribute(s). Since inferences tend to be adaptive (Dick et al. 1990), these individuals are expected to exhibit restraint in their inferring even when exposed to difficult to refute information. Therefore, unlike the two resistance processes discussed earlier, refutability of the negative information is likely to have minimal influence on the effectiveness of this mode of resistance. The next set of hypotheses is as follows:

**H4:**When the negative information is easy to refute, committed individuals are expected to minimize the impact of the negative information, while the low commitment people are likely to demonstrate a spillover effect to highly correlated attributes.

**H5:**When the negative information is difficult to refute, committed individuals are still likely to minimize its impact, while the low commitment people are likely to exhibit a spreading of the spillover effect (consistent with the interattribute correlations).

## Summary

Three modes of resistance are suggested in this article. While one (biased assimilation) relates to the processes involved in the acceptance of and yielding to counterattitudinal information, two others (relative weighting and minimization of impact) focus on how this new information is likely to be integrated into the attitudinal representation and thereby also influence other elements in it. When the negative information is easy to refute, biased assimilation is expected to be an effective line of defense. As the negative information becomes more difficult to refute, the effectiveness of the biased assimilation is likely to decrease. When committed individuals are unable to effectively deny the negative information, another mode of resistance is expected to emerge: relative weighting of attributes. That is, the committed individuals are expected to resist negative information by decreasing the weight given to cognitions that have changed as a result of exposure to the negative information, and/or increasing the weight given to attitude-consistent beliefs. A third mode of resistance, likely to be fairly effective in response to both easy and difficult to refute negative information, is minimization of impact. This mechanism deals with the extent to which the negative information spills over to the rest of the attitudinal representation. It is argued that while people are likely to generate inferences spontaneously, committed individuals are expected to resist neg-

ative information by restraining this tendency and minimizing the effect of this information on other attributes.

Therefore, this article attempts to provide an integrative framework for understanding resistance processes. It is important to note that it examines the effect of a message-related factor (refutability of the information) on the relative effectiveness and use of different modes of resistance. As discussed earlier, the hypotheses will be tested within the context of both a field study and a controlled lab experiment.

## FIELD STUDY OF THE CLINTON-LEWINSKY AFFAIR

### Overview of the Field Study

The field study was conducted to examine the posited resistance mechanisms in the context of a naturalistic setting where people are likely to have a strong level of commitment (Sears 1986) and the refutability of the negative information is likely to change over time. The Clinton-Lewinsky affair provided such an opportunity. Commitment of the participants toward the President was measured by their prior voting behavior. Responses of three groups of voters to the media-disseminated negative information were examined: Clinton supporters, Other Candidate supporters and Low Commitment voters. The Low Commitment voters were used as a control group. Voters' responses to the negative information were collected in three waves spanning nine months. These waves incorporated a naturally occurring operationalization of the ease/difficulty of message refutation:<sup>1</sup> the negative information was fairly refutable in waves 1 and 2, but became difficult to refute in wave 3.

### The Survey and Sample

One hundred fifty-one residents (randomly selected from the phone directories of two Midwestern cities) were contacted and interviewed over the phone a week to 10 days after the Clinton-Lewinsky story broke (January 28–31, 1998). Only those residents ( $n = 118$ ) who had voted in the last presidential election (1996) were asked all the in-

<sup>1</sup>The number of articles dealing with the Clinton-Lewinsky affair published in the *New York Times* during the nine-month panel study was counted and used as an indicator of the amount of negative information provided in each wave. The *New York Times* was selected because of its reputation as the newspaper that sets the tone for the media in the rest of the country (Powers 1996; Witcover 1998). All articles that had at least two references to Bill Clinton and Monica Lewinsky were included in the article count. In wave 1 (initial 10 days) there were 152 articles, or 15.2 articles/day; in wave 2 (next seven months) there were 886 articles, or 4.34 articles/day; and in wave 3 (last two months) there were 789 articles, or 14.9 articles/day. Therefore, by wave 3 the voters had been exposed to a very large amount of information relating to this affair. More important, the rate at which they were exposed to this information increased sharply in the last wave: from the average exposure of 4.85 articles/day in the first two waves to 14.90 articles/day in wave 3. Thus, by wave 3, not only had the voters been exposed to a large amount of information, but the rate at which they were exposed to negative information also increased sharply, making this information difficult to refute.

interview questions.<sup>2</sup> A second interview was conducted approximately seven months later in which 69 of the 118 respondents who had completed the first interview participated (August 20–24). This interview was conducted three to eight days after President Clinton's grand jury testimony (August 17, 1998) and after he went on national television to admit he had an "inappropriate relationship" with Monica Lewinsky. There had been constant coverage of this issue in the media during the interim seven-month period.

The third wave of data was collected two months later (October 14–17). In the time that elapsed between waves 2 and 3 of the data collection, the Starr Report (September 11), the President's videotaped testimony to the grand jury (September 21), and other testimony (October 2) had been released. Further, the House of Representatives had voted to begin a wide-ranging impeachment inquiry (October 8). In the third interview, the 69 people who had participated in both the earlier waves were contacted. A total of 65 people participated in all the three waves. Interviewers who had received extensive training contacted all the voters.

Fifty-five percent of the respondents contacted in the first wave participated in all the waves of the study. The drop-off rates were consistent with expectations from past research (Weisberg, Krosnick, and Bowen 1996). A comparison of the data obtained from respondents who dropped off versus those who stayed in the panel for the three time periods revealed no significant differences between these groups (all  $p$ 's > .10).<sup>3</sup>

For the analysis, three types of voters were identified: committed Clinton supporters, committed Other Candidate supporters, and Low Commitment voters. Participants were classified on the basis of two questions on voting choices that they were asked during the first interview: "Who did you vote for in the last election?" (Clinton, Dole, other); "At the time of voting, how strongly did you feel in favor of the candidate that you voted for?" (very strongly, somewhat strongly, not too strongly, not at all strongly). Respondents who had voted for Clinton and reported feeling very strongly about their choice were identified as committed Clinton supporters; participants who had voted for another candidate and felt very strongly about that candidate at the time of voting were identified as committed Other Candidate supporters. The remainder of the participants were classified as Low Commitment voters. The Low Com-

mitment voters served as a control group. These strict identification criteria for Clinton and Other Candidate supporters were adopted so that a very committed subsample of voters could be identified (Sweeney and Gruber 1984).

Using these criteria, 19 committed Clinton supporters, 16 committed Other Candidate supporters, and 30 Low Commitment voters were identified. The sample size is comparable to the past research that has used panels for investigating current events, for example, the Watergate scandal by Sweeney and Gruber (1984), who had between 13 and 42 respondents in each cell.

## The Dependent Variables

*Biased Assimilation.* Two questions were designed to test the extent to which different groups of voters were able to counterargue the information relating to this affair. Since Lewinsky was a key witness and her account was inconsistent with the President's, one way to discount (accept) the validity of the negative information would be to discount (accept) her trustworthiness (e.g., Anderson 1981; Chaiken et al. 1989). The question "Does Monica Lewinsky appear to be a trustworthy person?" aimed at understanding the extent to which different groups of voters attempted to discount (support) the validity of the information in this manner. Responses were coded as 1 if the participant responded "no," thereby completely discounting Lewinsky's trustworthiness, and as 0 if s/he indicated a tendency to trust her by either clearly answering "yes" to the question or indicating that s/he was undecided.

The second question, "Do you think President Clinton lied under oath?"<sup>4</sup> was based on one of the critical issues in this affair: perjury by the President. The President had admitted to "an inappropriate relationship with Monica Lewinsky" (before wave 2) although he had denied having a sexual relationship with her earlier (Paula Jones deposition). The House of Representatives had released considerable evidence relating to this accusation during the time that had elapsed between waves 2 and 3. The response to this question would reflect the voters' attempts to counterargue and deny (vs. accept) information relating to this critical issue. The responses were coded as 1 if the participant answered "no" to this question, indicating a clear denial of the charges of perjury. The response was coded as 0 if the participant indicated a tendency to yield to the negative information

<sup>2</sup>The panel of voters was recruited from two cities in Kansas. While the percentage of respondents in this sample who had voted in the last election (78 percent) was higher than the national average of eligible voters who cast ballots in the 1996 election (54.2 percent), it was consistent with the percentage of Kansas voters who had cast ballots in the 1996 presidential election (74.7 percent; Manning, 1998).

<sup>3</sup>There were no significant differences between the three groups (Clinton supporters, Low Commitment voters, Other Candidate supporters), using a  $z$ -test of proportions, in terms of the percentage of respondents who dropped off in wave 2 ( $P_{clinton} = .38$ ,  $P_{low} = .41$ ,  $P_{other} = .47$ ) or wave 3 ( $P_{clinton} = .10$ ,  $P_{low} = .07$ ,  $P_{other} = .06$ ). Additionally, the individuals who dropped off versus those that stayed in the sample were compared on the key dependent variables. None of the comparisons in wave 2 or wave 3 were significant (all  $p$ 's > .10), indicating no particular biases in the respondents who stayed versus those who left the panel.

<sup>4</sup>The respondents are likely to have answered this question with respect to the President's testimony in the Paula Jones case, and not other issues such as Whitewater. This is because of the following: First, at least five of the questions immediately preceding the above-mentioned question, in each wave, specifically dealt with the target issue. Past research demonstrates that preceding questions are likely to set the frame of reference for answering the following questions (e.g., Feldman and Lynch 1988). Moreover, the results of the field study indicated that respondents were indeed using the Paula Jones testimony as the reference point for answering this question. Clinton supporters were unable to deny the potential charges of perjury in wave 3, after the release of the Starr Report and other materials related to it. The fact that their response was closely tied to the evidence relating to the Paula Jones testimony indicates that this issue was used as a reference point for answering this question.

TABLE 1  
MEAN PROPORTION SCORES FOR QUESTIONS ASSESSING BIASED ASSIMILATION, FIELD STUDY

Wave	Type of voter		
	Clinton supporter	Other candidate	Low commitment
Lewinsky trustworthy?			
One	.95 <sup>a</sup>	.38 <sup>b</sup>	.67 <sup>c</sup>
Two	.79 <sup>a</sup>	.31 <sup>b</sup>	.73 <sup>a</sup>
Three	.89 <sup>a</sup>	.75 <sup>a</sup>	.77 <sup>a</sup>
President lied under oath?			
Two	.32 <sup>a</sup>	.00 <sup>b</sup>	.10 <sup>b</sup>
Three	.11 <sup>a</sup>	.00 <sup>a</sup>	.03 <sup>a</sup>

NOTE.—The values represent the proportion of voters who responded in negative to the question. Means in the same row that have different superscripts differ significantly at  $p < .05$  by z-test of proportions.

(e.g., “yes,” or “needs to be determined”). While the first question was asked in all three waves, the second question was asked during waves 2 and 3 because lack of foresight prevented its inclusion in wave 1.

*Impact of the Information.* The participants rated President Clinton on an inventory of nine traits (intelligent, moral, compassionate, inspiring, provides strong leadership, honest, cares about people like you, knowledgeable, and gets things done) in all three waves. The questions asked the participants how well each of those traits described President Clinton on a scale of extremely well, quite well, not too well, not well at all. The trait inventory and the questions were adopted from the American National Election Studies (ANES; Rosenstone et al. 1996).<sup>5</sup> These questions were included to assess the extent to which information relating to the focal attributes (i.e., honesty and morality) spilled over to the rest of the voter’s representation of President Clinton.

*Relative Weighting of Attributes.* Respondents’ overall evaluation of President Clinton was assessed by asking them to rate his effectiveness as a leader on a four-point scale (extremely well, quite well, not too well, not well at all). As will be discussed later, this variable and the above-described trait inventory were used to compute the weight given to various attributes by the respondents in each time period.

## Results

*Biased Assimilation.* Clinton supporters were expected to question the validity of the negative information to a greater extent than were the Low Commitment voters (Hypothesis 1). The effectiveness of this mode of resistance was expected to decrease as the information became more difficult to refute (Hypothesis 2).

Responses to the two questions were analyzed by comparing the proportion of respondents in each group that re-

sponded “no” to the question, indicating a clear attempt to deny the information. A z-test of proportions was conducted for each contrast.

The question “Do you think Monica Lewinsky is a trustworthy person?” dealt with the credibility of a key witness in this affair. Hypothesis 1 suggests that Clinton supporters should be more likely than the Low Commitment voters to question information supporting Lewinsky’s trustworthiness. While not anticipated at the inception of this research, the media coverage of this issue was not supportive of Lewinsky’s trustworthiness. This is evident from the data for the control group (Low Commitment) subjects, who demonstrated a tendency to question Lewinsky’s trustworthiness in all three waves ( $p_1 = .67$ ,  $p_2 = .73$ ,  $p_3 = .77$ ). Since the media coverage appeared to be supportive of rather than contrary to the Clinton supporters’ position, the responses to this question are not likely to provide an appropriate test of Clinton supporters’ ability to counterargue the negative information. For this reason, while responses to this question are summarized in Table 1, they will not be discussed in the text.

The second question, “Do you think President Clinton lied under oath?” dealt with the focal issue in this affair. As mentioned earlier, this question was asked in waves 2 and 3. In wave 2, a significantly greater proportion of Clinton supporters ( $p = .32$ ) as compared to the Low Commitment voters ( $p = .10$ ,  $z = 1.94$ ,  $p < .01$ ) and the Other Candidate supporters ( $p = .00$ ,  $z = 2.50$ ,  $p < .01$ ) were able to deny the charges of perjury against the President. Therefore, consistent with Hypothesis 1, they were able to refute the negative information significantly more than the control group.

In wave 3, after the release of the Starr Report and related evidence, the Clinton supporters appeared unable to effectively refute information related to this issue. There was no significant difference in the proportion of Clinton supporters ( $p = .11$ ) as compared to Low Commitment voters ( $p = .03$ ,  $z = .70$ ,  $p > .20$ ) and Other Candidate supporters ( $p = 0.00$ ,  $z = 1.40$ ,  $p < .09$ ) who believed that the President did not lie under oath. Therefore, Hypothesis 2 was also supported (see Table 1). Therefore, the data indicate that by wave 3, as the negative information became more difficult to refute in the face of the Starr Report and related infor-

<sup>5</sup>This trait inventory was developed on the basis of extensive pretesting, which included, as the first step, “voters’ open-ended candidate commentaries,” in line with Fishbein and Ajzen’s (1981) recommended procedure for eliciting primary beliefs. Please refer to Kinder (1983) for a detailed description of the development of the trait inventory.

mation, the committed Clinton Supporters were unable to effectively deny the charges of perjury. Since the biased assimilation mode of defense appears to have decreased in its effectiveness in wave 3, it might be anticipated that an alternative mode of resistance, that is, relative weighting, should emerge in this wave (Hypothesis 3).

*Weighting of Attributes.* Consistent with Hypothesis 3, Clinton supporters were expected to reduce the relative weight given to attribute(s) that had experienced a negative belief change and increase the relative importance of attributes that were unaffected by the negative information in wave 3, when biased assimilation appeared to have become ineffectual. In other words, they were expected to exhibit a consistency bias in the relative weighting of attributes. No such bias was expected for the Low Commitment voters.

The hypotheses were tested in two ways. First, for each group of voters, the mean belief change (from wave 1) for each attribute in waves 2 and 3 was regressed on the weight assigned to the attribute in that wave. A consistency bias would be reflected in a tendency of the voters to give more (less) weight to attributes that have been unaffected (lowered) by the negative information. That is, a positive and significant slope coefficient would indicate a consistency bias. Second, for each group of voters in each wave, the mean rating of each attribute was regressed on the weight assigned to it. A positivity bias or a significant positive coefficient reflecting more weight given to attributes on which the President was rated favorably, as compared to those on which he was rated unfavorably, would be consistent with a consistency bias for the Clinton supporters. It would reflect a deliberate re-weighting attempt by these voters since people in general are likely to weight unfavorable attributes more than favorable ones, that is, they exhibit a negativity bias (Fiske 1980; Klein 1996).

Two separate regression equations were estimated to test for each of these effects. However, before these equations could be estimated, the weight given to each of the nine attributes by the three groups of voters in each wave was computed from the measures of attribute ratings and overall evaluations. This procedure follows past research (e.g., Klein 1996) and is described next.

A series of regressions were run to generate a measure of weight given to each attribute in the formation of Clinton's overall evaluation by each group of voters in each wave. A regression equation was specified in which the individual's overall evaluation of President Clinton (effectiveness as a leader) was regressed on the attribute rating/belief in that wave. A series of regression analyses were conducted, one for each attribute for each group (Clinton supporters, Low Commitment voters, and Other Candidate supporters) in each wave. For example, the weight given to honesty by Clinton supporters in wave 1 was measured by regressing these voters' (i.e., Clinton supporters') effectiveness rating on their honesty rating in this wave. Following past research (Klein 1996), the unstandardized slope coefficient obtained from these equations was used as a measure of attribute weight. This measure is insensitive to variance

differences among the attributes (Lewis-Beck 1980) and was used in the equations for estimating the consistency bias.

Next, the two regression equations for measuring the consistency bias were estimated. For the first equation, mean belief change was computed in each wave as the difference in the mean attribute rating in that wave from the mean attribute rating in wave 1. It was computed only for waves 2 and 3 because no comparison point was available for wave 1. For each group of voters, the weight given to each attribute was regressed on its belief change (CHANGE) in that wave. The different voters in each wave were represented by dummy variables in the equation. For instance,  $LW_2$  and  $LW_3$  were dummy variables for Low Commitment voters in waves 2 and 3, respectively, while  $CW_2$  and  $CW_3$  were dummy variables for Clinton Supporters in waves 2 and 3, respectively, and  $OW_2$  and  $OW_3$  were dummy variables for Other Candidate supporters in these waves. The equation was specified as follows:

The consistency bias was captured by the coefficients for the interaction terms or the slope coefficients,<sup>6</sup> that is,  $\beta_2$  through  $\beta_6$ . Table 2 displays the slope coefficients for each group of voters in each wave. As expected (Hypothesis 3), a significant consistency bias ( $\beta = .44$ ,  $t = 3.24$ ,  $p < .05$ ) was obtained only for the Clinton supporters in wave 3. None of the other slope coefficients were significant.

Next, the regression equation for estimating the positivity bias was run. The weight given to each attribute was regressed on its mean rating (RATING) for each group of voters in each wave. Please note that in addition to the dummy variables included in the previous equation, dummy variables for each group of voters in wave 1 were also included in this analysis. A positivity effect would emerge if attributes that received unfavorable ratings were weighed less than attributes that received favorable ratings. The following equation was estimated:

As in the previous equation, the positivity (negativity) bias was captured by the coefficients for the interaction terms, that is,  $\beta_2$  through  $\beta_9$ . Table 2 displays the slope coefficients for each group of voters in each wave. As expected, the Clinton supporters exhibited a rarely found positivity bias in wave 3 ( $\beta = .25$ ,  $t = 2.08$ ,  $p < .05$ ). That is, in this wave, they weighed the positive attributes of the President more than his negatively rated attributes in determining his effectiveness as a leader. The Low Commitment voters, on the other hand, did not have a significant slope coefficient in any of the waves, indicating a lack of

<sup>6</sup>The  $\beta$  coefficients for the interaction variables represent the incremental change in the slope coefficient with respect to the baseline slope coefficient (i.e., Low Commitment voters in wave 2 or  $\beta_1$ ). Therefore, the slope coefficients for each type of voter in each wave (i.e., the interaction terms) were computed by adding  $\beta_1$  to the slope coefficient obtained from the regression equation (i.e.,  $\beta_2$  through  $\beta_9$ ).

**TABLE 2**  
REGRESSION ANALYSIS, FIELD STUDY

Interaction term	Slope coefficient	T-value
Consistency bias equation:		
Low Commitment voters, wave 2	.09	.40
Low Commitment voters, wave 3	.65	1.51
Clinton supporters, wave 2	.09	.25
Clinton supporters, wave 3	.44	3.24*
Other Candidate supporters, wave 2	.74	1.50
Other Candidate supporters, wave 3	.67	.59
Positivity bias equation:		
Low Commitment voters, wave 1	.13	.95
Low Commitment voters, wave 2	-.02	-.84
Low Commitment voters, wave 3	.10	.84
Clinton supporters, wave 1	-.42	-1.91
Clinton supporters, wave 2	.11	.69
Clinton supporters, wave 3	.25	2.08*
Other Candidate supporters, wave 1	-.45	-4.29*
Other Candidate supporters, wave 2	-.67	-5.01*
Other Candidate supporters, wave 3	-.69	-4.08*

\* $p < .05$ .

negativity or positivity bias. Therefore, Hypothesis 3 was supported.

However, a significant negative slope coefficient was obtained for the Other Candidate supporters in all three waves. This was consistent with the negativity bias uncovered in past research on evaluations of political candidates or a tendency of people to weight traits perceived to be a candidate's weakness more than traits perceived to be his or her strengths (Klein 1996).

*Impact of the Negative Information.* In addition to the two target attributes (honesty and morality),<sup>7</sup> voters'

<sup>7</sup>A content analysis of the media coverage was conducted to identify the focal attributes. Articles from the *New York Times* that dealt with this issue were analyzed for their content. Since there were a very large number of articles ( $n = 1,827$ ), a subset of articles published on Thursdays was selected for the analysis ( $n = 291$ ). Two independent judges read these articles and categorized them (into a maximum of two categories) according to what they perceived to be the focus of the article. The 10-item categorization scheme included the ANES trait inventory and an additional category (other). The judges received extensive training before they began the categorization task. There was a high level of agreement between the judges (93 percent). Disagreements were resolved via discussion. The results revealed that 57 percent of the media articles during the first wave, 49 percent of articles during the second wave, and 38 percent during the third wave focused on the honesty of the President. Further, 37 percent of the media articles during the first wave, 35 percent during the second wave, and 41 percent during the third wave focused on the morality of the President. None of the other categories came even close to these percentages. Thus, it can be concluded that the media coverage during this period focused on the attributes of morality and honesty.

perceptions of Clinton were also measured on seven other attributes in order to examine the spillover effect of the negative information on attributes that were not the focus of this information. Low Commitment voters were expected to exhibit a spillover pattern consistent with the interattribute correlation, while the Clinton supporters were expected to minimize the impact of negative information (Hypothesis 4). As the information became more difficult to refute, over time, the spillover effect for the Low Commitment voters was expected to spread to other correlated attributes while the Clinton supporters' attempt at containment of this information was expected to still be effective (Hypothesis 5).

Interattribute correlations (between the focal attributes and other traits) were computed from the sample. Honesty was highly correlated with the attributes of inspiring ( $r = .63$ ), strong leader ( $r = .62$ ), and cares ( $r = .64$ ) and had lower correlations with knowledge ( $r = .41$ ), intelligence ( $r = .44$ ), gets things done ( $r = .43$ ), and compassion ( $r = .47$ ). The pattern of correlations for committed Clinton supporters and the Low Commitment groups was very similar. Correlation of the other traits with morality followed the same pattern.

Spillover effects were examined via a series of planned contrasts between the attribute ratings across the three waves within each group of voters. That is, the contrasts compared the extent of belief change across the three waves for each group of voters. Fisher's least significant difference test was used for the contrasts. The error term for the contrasts was obtained from the repeated-measures ANOVA (waves 1 to 3) on attribute ratings for each group of voters (refer to Table 3 for the cell means).

As the table indicates, Low Commitment voters exhibited a significant decline in their rating of Clinton on the target attributes of honesty and morality, as well as two highly correlated attributes, inspiring and strong leader, in wave 2 as compared to wave 1. However, their attribute ratings in wave 3 were significantly lower than in wave 1 for all the attributes. In other words, although the spillover appeared to be determined by interattribute correlations in wave 2, by wave 3 there was a halo effect of the negative information for these voters.

The Clinton supporters, as hypothesized, demonstrated great restraint in their inferencing. In wave 2 (as compared to wave 1) they exhibited only a marginal decline in their rating of the President's honesty ( $p < .10$ ), and no significant change in their rating of his morality. They considered the President to be significantly less inspiring in this wave, however ( $p < .05$ ). In wave 3, the impact of negative information was contained to the target attributes: honesty ( $p < .05$ ) and morality ( $p < .10$ ). It is also surprising that there was a significant enhancement in their rating of the President's intelligence in wave 3. In sum, the committed Clinton supporters contained the impact of the negative information to the target attributes, exhibiting a significant spillover to only one of the high-correlation attributes: inspiring. It is important to note that the rating of one of the low-correlation



**TABLE 3**  
MEAN ATTRIBUTE RATINGS FOR THE DIFFERENT GROUPS OF VOTERS, FIELD STUDY

Attributes	Clinton supporters			Low Commitment voters			Other Candidate supporters		
	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave 3
Morality	2.72 <sup>a</sup>	2.47 <sup>ab</sup>	2.21 <sup>b</sup>	2.00 <sup>a</sup>	1.50 <sup>b</sup>	1.33 <sup>c</sup>	1.25 <sup>a</sup>	1.13 <sup>ab</sup>	1.00 <sup>b</sup>
Honesty	2.89 <sup>a</sup>	2.47 <sup>a</sup>	2.05 <sup>b</sup>	1.90 <sup>a</sup>	1.50 <sup>b</sup>	1.17 <sup>c</sup>	1.25 <sup>a</sup>	1.13 <sup>ab</sup>	1.00 <sup>b</sup>
Inspiring	3.32 <sup>a</sup>	2.84 <sup>b</sup>	2.95 <sup>ab</sup>	2.69 <sup>a</sup>	2.40 <sup>b</sup>	2.13 <sup>c</sup>	1.94 <sup>a</sup>	1.63 <sup>ab</sup>	1.38 <sup>b</sup>
Compassion	3.26 <sup>a</sup>	3.21 <sup>a</sup>	3.26 <sup>a</sup>	2.90 <sup>a</sup>	2.60 <sup>a</sup>	2.27 <sup>b</sup>	2.06 <sup>a</sup>	1.75 <sup>b</sup>	1.44 <sup>c</sup>
Gets things done	3.42 <sup>a</sup>	3.26 <sup>a</sup>	3.21 <sup>a</sup>	2.93 <sup>a</sup>	2.80 <sup>a</sup>	2.50 <sup>b</sup>	2.56 <sup>a</sup>	2.06 <sup>ab</sup>	1.75 <sup>b</sup>
Strong leader	3.42 <sup>a</sup>	3.32 <sup>a</sup>	3.05 <sup>a</sup>	2.87 <sup>a</sup>	2.57 <sup>b</sup>	2.30 <sup>c</sup>	1.93 <sup>a</sup>	1.88 <sup>ab</sup>	1.63 <sup>b</sup>
Cares	3.42 <sup>a</sup>	3.26 <sup>a</sup>	3.16 <sup>a</sup>	2.77 <sup>a</sup>	2.50 <sup>a</sup>	2.16 <sup>b</sup>	1.88 <sup>a</sup>	1.50 <sup>ab</sup>	1.44 <sup>b</sup>
Knowledge	3.79 <sup>a</sup>	3.68 <sup>a</sup>	3.74 <sup>a</sup>	3.47 <sup>a</sup>	3.20 <sup>ab</sup>	2.97 <sup>b</sup>	3.25 <sup>a</sup>	2.69 <sup>b</sup>	2.50 <sup>b</sup>
Intelligence	3.63 <sup>a</sup>	3.74 <sup>ab</sup>	3.89 <sup>b</sup>	3.38 <sup>a</sup>	3.13 <sup>ab</sup>	2.97 <sup>b</sup>	3.06 <sup>a</sup>	2.50 <sup>b</sup>	2.56 <sup>ab</sup>

NOTE.—All contrasts are within each group of voters. For each group of voters, means in the same row that have different superscripts differ significantly at  $p < .05$  by Fisher's least significant difference test. Cell sizes were as follows: Clinton supporters,  $n = 19$ ; Low Commitment voters,  $n = 30$ ; Other Candidate supporters,  $n = 16$ .

attributes was enhanced, perhaps in reactance to the negative information (Brehm 1966).

Since the negative information was attitude consistent for the Other Candidate supporters, they demonstrated a tendency to lower their beliefs on all the attributes. It is important to note that these voters had relatively low initial ratings of the President on all attributes (wave 1) and had the lowest sample size, leading to very little room for attribute-rating change accompanied by low power. By wave 3, they had given the President the lowest possible rating on both honesty and morality (1 on a 1–4 scale). It is important to note that, since the spillover effect in wave 2 was not consistent with the interattribute correlations, it could be argued that their spillover was determined by an affect-transfer mechanism, or represented a halo effect of the negative information.

## Discussion

In sum, Clinton supporters demonstrated a strong resistance to negative information as compared to the other two groups of voters. It is important to note that while we have discussed the results pertaining to the Other Candidate supporters, the hypotheses dealt with comparisons between Clinton supporters and the Low Commitment voters. The Clinton supporters attempted to discount the validity of the negative information to a greater extent than did the Low Commitment group. However, after the release of the Starr Report and other related evidence in wave 3, they were unable to deny it more effectively than the other two groups. At this point, they exhibited another mode of resistance involving relative weighting of the information. That is, they reduced the weight given to the attributes that had been negatively affected by the information (e.g., honesty) while increasing the relative weight of attributes whose rating was more favorable. In this way, they were able to maintain a favorable evaluation of the President, even though they accepted the negative information related to him.

Another mode of resistance examined in this research was the minimizing impact of the information. While the Low

Commitment voters exhibited a spillover based on the interattribute correlations in wave 2, by wave 3 they had lowered their evaluations of all the attributes. Clinton supporters, in contrast, appeared to minimize the impact of the negative information, exhibiting a spillover to only one highly correlated attribute. In fact, an enhancement effect was obtained for one of the low-correlation attributes when the negative information was difficult to refute.

While the field study provided support for our hypotheses, further evidence of both internal and external validity of the findings would be desirable. It is important to note that our model was tested in the political context; it would be desirable to obtain evidence of its generalizability in a consumer setting. Further, though the field study allowed us to capture the richness of a naturally occurring event, it also led to a level of control that was lower than would have been possible in a lab setting, raising some potential concerns.

First, we did not have a measure of the refutability of the negative information in our data set. While it could be argued on the basis of the media coverage that the negative information became significantly more difficult to refute in wave 3, a cleaner assessment would be desirable. Second, the effect of extraneous messages could not be controlled. Specifically, the lack of spillover effect obtained for the Clinton supporters was consistent with the calculated and well-planned defense strategy of the President's staff to isolate the negative information to a personal aspect of his character. This weakens the case for the spillover mode of resistance. Third, the interattribute correlations were computed from the data. However, past research indicates that the strength of the empirical correlation obtained post hoc from the data set may not be reflective of the nature of the intuitive relationship between the attributes (Einhorn and Hogarth 1986). In order to provide a cleaner test of the hypothesis, interattribute correlations need to be assessed more directly from the individuals in a separate setting. Fourth, the unpredictable direction of the media coverage resulted in one of the biased assimilation measures becoming

invalid, leaving only a single item to measure this mechanism.

A controlled lab experiment was conducted to address all the above issues. The refutability of the negative information was manipulated in a consumer context. The controlled setting allowed elimination of extraneous messages and the use of better measures. The interattribute correlations were established via pretests in which subjects provided direct assessments of these relationships. Therefore, the experiment will attempt to extend the external as well as internal validity of the framework tested in the field study.

## LAB STUDY IN THE CONSUMER CONTEXT

### Method

*Design.* A 2 (commitment of the consumer: high vs. low)  $\times$  2 (refutability of the negative information: high vs. low) factorial with two control groups (described later) was run.

*Target Product Category and Brand.* Athletic shoes were selected as the target product category. A pretest was conducted to identify a low share target brand in the athletic shoe category so that the prior attitude and commitment of the subject could be manipulated in an experimental setting in order to avoid confounds associated with measured variables.

Three hundred and ninety students from an introductory business class filled out a questionnaire assessing their attitudes, familiarity, and commitment to various brands. Based on the results of this survey, Mizuno was identified as the target brand: on a nine-point scale, subjects were relatively unfamiliar with the brand ( $M = 3.07$ ), had low levels of prior commitment to the brand ( $M = 2.18$ ), and moderately positive attitudes toward it ( $M = 5.13$ ) (all on nine-point scales). Cameras were chosen as a filler product for reasons to be described in a following section. Materials, which included background information on the products/companies, *Consumer Reports* articles for the brands, and ads were developed for the two product categories.

*The Negative Messages.* The easy and difficult to refute negative target messages were developed in the format of newspaper articles. Refutability of the information was manipulated via the amount of strong and diagnostic negative information. Both versions discussed the results of a study that had found an inadequate level of shock absorption in the target brand of shoes. The easy to refute version was designed to give the reader two major avenues to question this claim. First, the reader could question the validity and the reliability of the study since it was conducted by a relatively unknown organization and its methodology was not extensively discussed in the article. Second, no comparison information about how other brands performed on this test was available, allowing the reader to argue (if needed) that other brands may have performed similarly on the test. The

difficult to refute version provided statements from a prestigious international research organization endorsing the methodology of this study and confirming the reliability of the results obtained. Further, it provided information on the performance of other brands, which indicated that the target brand was only one of the two brands (out of the 15 tested) with inadequate ratings on shock absorption.

In a pretest ( $n = 33$ ), subjects generated significantly fewer counterarguments when exposed to the difficult to refute as compared to the easy to refute version of the article ( $M$ 's = 1.17 vs. 1.88,  $F = 4.13$ ,  $p < .05$ ). Further, on a nine-point scale, they rated the difficult to refute article as significantly more informative ( $M$ 's = 6.40 vs. 5.27), credible ( $M$ 's = 6.25 vs. 5.37), convincing ( $M$ 's = 5.83 vs. 5.00), and stronger ( $M$ 's = 6.10 vs. 4.45) than the easy to refute article, all  $p$ 's  $< .05$ . Therefore, the articles were significantly different in their ease of refutation.

*Primary Attributes.* A pretest was conducted to identify the important or primary attributes in the evaluation of athletic shoes. The spillover effect would be assessed in relation to these attributes. Following Fishbein and Ajzen (1975), 38 students were asked to write down the attributes they would consider in evaluating an athletic shoe. The top eight attributes elicited were support, comfort, style, resistance to wear and tear, quality of materials, price, brand name, and weight. These were considered to be the primary attributes for an athletic shoe and were included in the next pretest, which focused on the perceived correlations/relationship between shock absorption and other attributes.

In this pretest, subjects ( $n = 35$ ) were asked to state the extent (five-point scale: 1 = not at all, 5 = almost everything) to which they could infer the level of a specified attribute in a shoe on the basis of information about its level of shock absorption. Comfort ( $M = 2.65$ ) and support ( $M = 2.34$ ) were highly correlated, quality of materials ( $M = 1.40$ ), weight ( $M = 1.13$ ), and resistance to wear and tear ( $M = 1.09$ ) were moderately correlated, and price ( $M = 0.57$ ) and style ( $M = 0.48$ ) were very low in their perceived correlation with the attribute of shock absorption.

*Procedure.* One hundred and one students participated individually in this experiment. On arrival, each subject was informed that s/he was participating in a consumer survey being conducted by a market research company in collaboration with the business school. The subject was told that the study would concern two products that were going to be introduced in their local area. He or she was then given a folder containing materials related to the two products (a camera and an athletic shoe). The materials included background information, a *Consumer Reports* article, and draft copies of ads for both the products. After subjects finished reviewing the materials, they were asked to record their thoughts related to the two products on an audio tape. They were asked to point out specifically the positive qualities of the brand that the company could use in its advertising and were encouraged to suggest a potential endorsement or slogan for each product.

The manipulation for commitment was administered after the subjects had tape-recorded their thoughts. The subjects in the high-commitment condition were asked if the Mizuno Corporation could use their taped thoughts about the brand, along with their photograph, in the company's advertising and publicity campaigns. The subject was photographed and asked to sign a release statement to this effect. This induction follows the procedure used in past commitment studies, which have shown that public attachment of self to the target results in increased commitment to it (e.g., Halverson and Pallak 1978; Kiesler 1971). This procedure directly follows from the definition of commitment as "the pledging or binding of the individual to behavioral acts" (Kiesler 1971) and refers to the associations between people's attitudes and their overt, often public behaviors in support of that attitude. The subjects in the low-commitment condition underwent the same procedure but were asked to release their thoughts related to the filler camera brand. Therefore, subjects in both the high- and the low-commitment condition went through exactly the same set of procedures and provided thoughts for both the products. The only difference was the brand for which they signed the release and were photographed.

In order to examine the effects of commitment on negative information processing, the subjects were exposed to the negative brand related information after the commitment manipulation. When the experimenter went to his desk to get the questionnaire, he acted surprised to find a loose-leaf page on the desk and inquired whether the subject had read the page. Once the subject confirmed that he had not, the experimenter apologized and told the subject that the page had apparently slipped out of the folder unnoticed, and requested the subject to read it before s/he filled out the questionnaire. The binder holes in the missing page were deliberately torn so that the mishap could be explained easily. The missing page was the negative newspaper article, which was either easy to refute or difficult to refute. After reading the article, subjects filled out the dependent-measures questionnaire.

The control groups (high and low commitment) were used for two purposes. The first was to assess the effectiveness of the commitment manipulation. The commitment-manipulation check was not administered to the experimental groups because of the potential for demand artifacts. The second was to provide the baseline ratings of the various attributes after exposure to the background materials but prior to reading the negative message. The spillover effect was computed as the difference in attribute beliefs between the control and the experimental conditions. Subjects in the control group performed the same tasks as those in the experimental group but did not see the target article; that is, they did not go through the mishap of the missing page.

All subjects were thoroughly debriefed and quizzed for potential hypotheses guessing. Three subjects reported being suspicious about the article slipping out. They were dropped from the analysis.

*Dependent Variables.* Three measures of biased assimilation based on past research (Ditto and Lopez 1992;

Pomerantz, Chaiken, and Tordesillas 1995) were used. The focal issue of the newspaper article was the inferior shock absorption of the target brand. Therefore, the extent to which subjects accepted this information was assessed by asking them to state their agreement (seven-point scale: strongly disagree/strongly agree) with the statement, "After reading this article it was fairly clear to me that Mizuno is inferior to most other brands in terms of its shock absorption." Since the subjects could counterargue the negative information by challenging its validity, two items tapping into the effectiveness of these attempts were included. Subjects were asked to state their assessment of the study reported in the newspaper article (not at all well conducted/very well conducted) and to rate the credibility of the article (not at all credible/very credible) on a nine-point scale.

Two measures of relative weighting based on past research (Jaccard, Brinberg, and Ackerman 1986; MacKenzie 1986) were used. The first was the constant sum rating of the importance of attributes. Subjects were asked to divide 100 points among four product attributes (shock absorption and three others) according to how important each attribute was to them. The number of points allocated to shock absorption was used as an indicator of its relative weight. Second, subjects were asked to rate the importance of each attribute on a seven-point scale (not at all important/extremely important).

To assess impact of the information, attribute beliefs relating to the seven primary attributes discussed earlier were measured on seven-point scales anchored by likely/unlikely. In the control groups, commitment to the target brand was measured using a three-item brand-commitment measure proposed and tested by Beatty, Kahle, and Holmer (1988),<sup>8</sup> and attitude toward the target brand was measured using three nine-point semantic differential scales (good-bad, beneficial-harmful, and desirable-undesirable; coefficient alpha = 0.96).

## Results

*Manipulation Checks.* The control group data revealed that, as expected, high commitment subjects reported a significantly higher level of commitment to the target brand than did the low commitment subjects ( $M$ 's = 4.49 vs. 3.28,  $F(1, 21) = 4.66$ ,  $p < .05$ ) but had equivalent attitudes toward the target brand ( $M$ 's = 5.83 vs. 5.57,  $p > .20$ ).

Further, subjects in the low and high commitment control conditions did not differ on their beliefs related to the target brand (all  $p$ 's  $> .05$ ). Therefore, for the purpose of comparison with the experimental groups, the attribute beliefs of the high and low commitment control groups were combined. The spillover effect was assessed by contrasting the

<sup>8</sup>The three items were (1) "If [brand X] of athletic shoes were not available at the store, it would make little difference to me if I had to choose another brand"; (2) "I consider myself to be highly loyal to [X] brand of athletic shoes"; and (3) "When another brand is on sale, I will generally purchase it rather than [X brand]." Subjects expressed their agreement with the statements on a nine-point scale anchored by disagree/agree.

beliefs of the experimental groups with the combined control group.

**Biased Assimilation.** Committed consumers were expected to refute the negative information to a greater extent than the low commitment consumers (Hypothesis 1). However, they were expected to yield to the difficult to refute information (Hypothesis 2). Planned contrasts, using Fisher's least significant difference test, were conducted to test the hypotheses.

Consistent with Hypothesis 1, in the easy to refute condition, high commitment consumers were able to counterargue the information more effectively than their low commitment counterparts: they considered the article to be less credible ( $M's = 4.90$  vs.  $5.84$ ,  $p < .01$ ) and were less likely to think that the study in the newspaper article was well conducted ( $M's = 4.27$  vs.  $5.11$ ,  $p < .05$ ). As expected, they were less likely to believe that Mizuno was inferior to other brands in terms of its shock absorption ( $M's = 3.11$  vs.  $4.00$ ,  $p < .05$ ).

However, this difference in the acceptance of the negative information ceased to be significant when the information was difficult to refute (credible,  $M's = 5.90$  vs.  $6.26$ ; well conducted,  $M's = 5.11$  vs.  $5.67$ ; Mizuno inferior,  $M's = 4.50$  vs.  $4.63$ ; all  $p's > .05$ ). Thus, while in the easy to refute condition the high commitment consumers were able to counterargue the negative information significantly better than the low commitment consumers, the biased-assimilation mode of defense ceased to be effective in the difficult to refute condition.

**Relative Weighting.** Given the ineffectual biased assimilation in the difficult to refute condition, the high commitment consumers were expected to reduce the weight given to the attribute of shock absorption while increasing the weight given to other unaffected attribute(s) in this condition, thereby exhibiting a consistency bias (Hypothesis 3). However, no such bias was expected for the low commitment consumers. Results from the two measures of weight, as well as a regression analysis estimating the consistency bias, are discussed below.

Planned contrasts, using Fisher's least significant difference test, were conducted on the two measures of weight given to shock absorption: the constant sum measure and the importance rating. As expected, both measures indicated that while in the easy to refute condition there was no significant difference in the weight allocated to shock absorption by the high versus the low commitment subjects (constant sum,  $M's = 24.74$  vs.  $21.05$ ; importance rating,  $5.79$  vs.  $5.32$ ,  $p's > .05$ ), in the difficult to refute condition the high (vs. low) commitment subjects allocated significantly less weight to shock absorption (constant sum,  $M's = 20.53$  vs.  $25.26$ ; importance rating,  $5.16$  vs.  $5.90$ ,  $p's < .05$ ).

Next, a regression analysis was conducted to test for the consistency bias. It attempted to assess whether attributes that were (un)favorably evaluated were given more (less) weight in the overall evaluation of the brand. It is important to note that the initial beliefs of both groups (high and low

commitment) relating to all attributes were positive and similar before exposure to the negative information (see control group means). The following equation was estimated:

where,  $HC_e$ ,  $HC_d$ , and  $LC_d$  were dummy variables for high commitment easy to refute, high commitment difficult to refute, and low commitment difficult to refute conditions, respectively. The base level was the low commitment easy to refute condition. RATING was the mean attribute rating/belief for each attribute in each cell. Weight was the mean weight assigned to each attribute in each cell, measured by the importance rating.

The consistency bias was captured by the coefficients for the interaction terms, that is,  $\beta_2$  through  $\beta_4$ . Table 4 displays these coefficients. Only the slope coefficient in the high commitment difficult to refute condition approached significance ( $\beta = .52$ ,  $t = 1.84$ ,  $p < .08$ ). Its positive sign indicates a consistency bias. That is, the committed subjects gave less weight to the negatively versus the positively rated attributes. This bias emerged when the difficult to refute nature of the negative information lowered the effectiveness of biased assimilation. Therefore, all three measures supported the relative weighting hypotheses.

**Message Impact.** The impact of information was examined via a series of planned contrasts between the experimental and control conditions for the primary attributes. The Dunnett's  $t$ -test recommended by Winer (1971) was used. Specifically, the residual error term from the ANOVA (with a single control group) model was used for the planned contrasts.

When the message was easy to refute, the low commitment subjects had significantly lower beliefs than the control group for the two highly correlated attributes (support,  $M's = 5.11$  vs.  $5.84$ ; comfort,  $M's = 5.00$  vs.  $5.74$ ) and one of the moderately correlated attributes (quality of materials,  $M's = 4.90$  vs.  $5.71$ ), all  $p's < .05$ . However, none of the contrasts were significant (all  $p's > .05$ ) for the high commitment subjects who exhibited no spillover effect of the negative information (see Table 5 for the cell means).

When low commitment subjects were exposed to difficult

TABLE 4

RELATIVE WEIGHTING OF ATTRIBUTES, REGRESSION ANALYSIS (EXPERIMENT)

Interaction term	Slope coefficient	T-value
Low Commitment, easy to refute	.04	.15
Low Commitment, difficult to refute	.02	.08
High Commitment, easy to refute	.02	.10
High Commitment, difficult to refute	.51	1.84 <sup>+</sup>

<sup>+</sup> $p < .10$ .

TABLE 5  
MEAN ATTRIBUTE RATINGS FOR THE DIFFERENT GROUPS (EXPERIMENT)

Attribute	Correlation	Low Commitment		High Commitment		Control
		Easy	Difficult	Easy	Difficult	
Support	High	5.11*	5.05*	5.37	5.47	5.84
Comfort	High	5.00*	5.11*	5.42	5.37	5.74
Quality of materials	Moderate	4.90*	5.05*	5.47	5.63	5.71
Weight	Moderate	5.11	4.68*	5.21	5.42	5.33
Resistance to wear	Moderate	5.58	5.32*	5.79	6.05	5.83
Style	Low	5.37	5.31	5.68	5.55	5.65
Price	Low	5.68	5.74	5.79	6.26*	5.80

\*Denotes that cell mean is significantly different from the control group mean at  $p < .05$ .

to refute information, their spillover effect extended to the two other moderate correlation attributes (resistance to wear,  $M$ 's = 5.32 vs. 5.83; weight,  $M$ 's = 4.68 vs. 5.33,  $p$ 's < .05). That is, all the high and moderate correlation attributes experienced a negative spillover; only the low correlation attributes were unaffected by the negative information. In contrast, the high commitment consumers still did not exhibit a negative spillover to any of the primary attributes. Instead, an enhancement was observed for one of the low correlation attributes (price,  $M$ 's = 6.26 vs. 5.80,  $p < .05$ ). That is, high commitment subjects in the difficult to refute condition expected the target brand to be more reasonably priced than did the control group subjects. Thus, both Hypotheses 3 and 4 were supported. Therefore, the findings of the field study were replicated in the lab experiment and thereby increase our confidence in the resistance mechanisms explicated in our theory.

## GENERAL DISCUSSION

Resistance is an important, complex, and multifaceted psychological process. Unfortunately, as Eagly and Chaiken (1995) observe, past discussions relating to resistance mechanisms are fairly "speculative" (p. 422), given the limited amount of past research in this area. Our article attempts to replace this speculation with theory and data. We propose a theoretical framework of resistance mechanisms. This framework was tested in the context of a longitudinal field study involving a real event (the Clinton-Lewinsky affair), as well as a controlled laboratory experiment in the consumer setting that manipulated the variables of interest. The longitudinal field study allowed examination of the different modes of resistance over time in a naturalistic setting (Sears 1986), while the control in the lab helped in ruling out alternative explanations and in more clearly understanding factors that influence the use of different resistance strategies. The findings of these two studies enhance our confidence in the internal as well as external validity of this framework.

Past research has focused on the biased-assimilation mode of resistance. Our research, however, proposes and tests two other modes of resistance: relative weighting and minimizing impact. Biased assimilation deals with the acceptance/

denial of the counterattitudinal information itself; the two additional processes examined in this research focus on how this new information is likely to be integrated into the attitudinal representation and thereby influence other elements in it. In other words, our research provides a more holistic view of how individuals resist counterattitudinal negative information. We believe this is the first empirical research to examine all three modes of resistance together.

More important, this is the only research study that identifies a factor (refutability of the information) that affects the use and relative effectiveness of different modes of resistance. The current research clearly demonstrates the critical role this factor plays in determining the effectiveness of the biased-assimilation mode of resistance and the potential use of the evaluation mode.

Specifically, it is argued that the biased-assimilation mode is likely to become ineffective in the face of difficult to refute negative information. Consistent with this assertion, in the field study, Clinton supporters were unable to deny the charges of perjury significantly more than the low commitment voters in wave 3, after exposure to the Starr Report and other related evidence. Similarly, in the lab study, committed consumers accepted the negative information to the same extent as the low commitment group when they were exposed to difficult to refute information.

Our research demonstrated that the decreased effectiveness of biased assimilation led to the emergence of another mode of resistance: relative weighting. That is, when committed individuals found it difficult to deny the negative information, they attempted to minimize its influence on their overall evaluation by decreasing the weight given to the attribute(s) negatively influenced by this information. This phenomenon was observed in both the field study as well as the lab experiment. In the field study, Clinton supporters demonstrated a significant consistency bias in wave 3, when biased-assimilation processes became ineffectual, giving less weight to attributes like honesty and morality that were affected by the negative information, and increasing the weight given to attributes that were rated favorably. This mechanism allowed them to maintain a favorable rating of the President, giving him high approval ratings even after they had accepted the implications of the negative information, that is, the charge of perjury. Similarly, high com-

mitment consumers exhibited a consistency bias accompanied by a decrease in the weight given to the target attribute (shock absorption) when the negative information was difficult to refute. It is important to note that our research is the first to demonstrate an interdependent hierarchical relationship between the modes of biased assimilation and evaluation.

An additional mode of resistance examined in this research was minimization of impact, or the extent to which the negative information spilled over to other attributes not mentioned in the message. Low commitment individuals in both the studies demonstrated a tendency to generate inferences about the other attributes on the basis of negative information. When the negative information was relatively easy to refute, these inferences (or belief change) were limited to the highly correlated attributes; however, as the information became more difficult to refute, the impact spread to other attributes. In contrast, committed individuals demonstrated another mode of resistance to the negative information: a tendency to isolate the effects of this information from other attributes in the representation. While the Clinton supporters demonstrated a negative spillover to only one highly correlated attribute (out of the seven measured attributes), the high commitment consumers (in the experiment) were able to contain the impact of the difficult to refute negative information. In other words, this resistance mechanism appears to be fairly effective even in the face of difficult to refute negative information. This is a strong show of resistance.

While not predicted by us, the committed individuals exhibited a significant enhancement in one low correlation attribute, when exposed to difficult to refute negative information, in both the field study (intelligence) and the lab study (price). This effect is consistent with Brehm's (1999) intensity-of-emotion theory, indicating that there may be an emotional component to the defense elicited by the committed individuals. Future research should therefore examine the role of emotions in the resistance processes evoked by committed individuals.

The current research portrays a picture of humans as motivated information processors (Kunda 1990) who have at their disposal a vast array of psychological mechanisms for resisting counterattitudinal information. It also indicates that when the effectiveness of one of the mechanisms in their arsenal decreases, the effectiveness of the others may step up. In other words, the separate resistance mechanisms appear to complement one other.

These findings have important implications for marketers. For instance, they attest to the value of loyalty or commitment by suggesting that it brings with it a very rich arsenal of defensive processes that help the perceiver resist counterattitudinal information. Since the counterattitudinal information (e.g., negative information about the target) is likely to encourage switching behavior, by resisting it loyal customers are able to exhibit a tendency toward repeat purchase behavior.

On the other hand, this research also demonstrates that

the impact of negative information, if not resisted by the perceivers, can be devastating over time. In addition to influencing target beliefs and overall evaluations, negative information also has the potential to affect beliefs relating to other attributes in the attitudinal representation. This finding implies that a response to negative information may need to address more than just the focal attribute.

This article focused on the role of one factor—refutability of the negative information—in influencing the use and effectiveness of resistance mechanisms. Future research should examine the effect of other factors influencing the use of these mechanisms. In particular, more research related to the factors that are likely to influence the effectiveness of the impact mechanism and the triggering of the relative weighting mode is needed. For instance, individual difference factors such as the preferred style of processing and need for closure may be relevant in this regard. In sum, future research needs to address the drivers of the different resistance modes.

Further research is also needed to clarify the nature of the interdependency between biased assimilation and relative weighting observed in the current research (e.g., whether ease of refutation moderates the likelihood of using the weighting strategy or the effectiveness of biased assimilation). Finally, while one would expect the three modes of resistance discussed in this article to be applicable to the context of other forms of counterattitudinal information (e.g., positive information about a nonpreferred target), future research needs to address this issue empirically.

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