Source Attributions and Persuasion: Perceived Honesty as a Determinant of Message Scrutiny

Joseph R. Priester  
Fordham University

Richard E. Petty  
Ohio State University

A hypothesis derived from current two-route models of persuasion was examined—that a communicator's perceived honesty is a determinant of the extent to which attitude change is based on scrutiny of the substance of the persuasive message. Specifically, cognitive misers are expected to forgo effortful message scrutiny when a communicator can be assumed to be truthful. In a preliminary study, honesty was found to be the source characteristic most highly associated with providing an accurate message. Then, in three experiments, source honesty was manipulated either directly (by presenting information about past honesty of the source) or indirectly (using an expectancy confirmation/disconfirmation procedure). In all three studies, postmessage attitudes of individuals low in the need for cognition (NC)—cognitive misers—were less dependent on message scrutiny when the source was assumed to be relatively honest. For high-NC individuals, message scrutiny did not differ depending on the source.

Current models of persuasion such as the elaboration likelihood model (ELM; Petty & Cacioppo, 1981, 1986) and the heuristic-systematic model (HSM; Chaiken, Liberman, & Eagly, 1989) predict that attitudes can be changed following either a careful and effortful consideration of a persuasive communication or a less cognitively effortful inference and association process. Two underlying assumptions have guided much of this work. First is the notion that people tend to be "lazy organisms" (McGuire, 1969), "cognitive misers" (Taylor, 1981), and "economy-minded souls" (Eagly & Chaiken, 1993) who engage in effortful information-processing activity only when it is deemed necessary.

A second assumption is that an important determinant of whether effortful processing is necessary is the extent to which the message recipient can assume that information presented by the source is correct and accurate. The first two postulates of the ELM, for example, assert that (a) individuals seek to hold correct attitudes, but (b) the extent of effortful message scrutiny in which people actually engage varies with individual and situational factors (Petty & Cacioppo, 1986). A consideration of both postulates implies that message scrutiny will be greater when individual or situational factors increase the need to be accurate, as careful scrutiny of the substantive information presented in a message is typically the best means of achieving accuracy. These postulates also imply that information-processing activity will be reduced if accuracy can be achieved in the absence of message scrutiny. Similar predictions can be derived from the HSM. That is, the HSM assumes that people will exert whatever cognitive effort is necessary to attain sufficient confidence that their processing goals are accomplished (Eagly & Chaiken, 1993). If achieving accuracy is a goal, then effortful message processing is most likely to occur.

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likely when accuracy cannot be achieved by mere reliance on simple cues (Chaiken et al., 1989).

Thus current persuasion theories suggest that people tend to be cognitive miser who will engage in minimal message-processing activity when they can be reasonably confident that the information and position offered by a communicator are accurate. Although these assumptions have guided much work on the ELM and HSM (see Eagly & Chaiken, 1993; Petty & Cacioppo, 1986), they have not been examined directly. Our primary goal, therefore, was to examine the hypothesis that perceptions of communicator accuracy would moderate the extent to which attitude change is based on message processing. To address this issue, we first conducted a preliminary study to assess the extent to which various communicator characteristics are assumed to be associated with accurate messages. Then, in Experiments 1 and 2, we manipulated the communicator characteristic most strongly associated with message accuracy directly, to examine how this source characteristic influences the extent to which attitudes are based on message processing. In Experiment 3, we conducted a conceptual replication of Experiments 1 and 2 but used an indirect manipulation of perceived accuracy. To ascertain the extent to which attitudes were based on message scrutiny, in Experiment 1 we examined the correlation between subjects’ postmessage attitudes and their cognitive responses to the message (Greenwald, 1968). In Experiments 2 and 3, we varied the quality of the arguments in the message (Petty, Wells, & Brock, 1976). Our primary hypothesis was that attitudes would become less dependent on message scrutiny as perceptions of source accuracy were increased. That is, the correlation between attitudes and message-relevant cognitive responses would be reduced, and attitudes would be less influenced by message quality as perceptions of source accuracy were increased.

A second goal of the current research was to examine the hypothesis that the moderating effect of perceived communicator accuracy on message-based attitude change would hold only for individuals who were protective of their cognitive resources. That is, individuals who do not characteristically enjoy thinking should be especially likely to avoid effortful message scrutiny if they can be confident of the accuracy of the communication. Individuals low in need for cognition (NC; Cacioppo & Petty, 1982) are dispositionally more miserly in their expenditure of cognitive resources than individuals high in this trait (e.g., Axsom, Yates, & Chaiken, 1987; Cacioppo, Petty, & Morris, 1983; Hagtvedt & Petty, 1992; Hagtvedt, Petty, & Cacioppo, 1992), and therefore low-NC people should be particularly likely to forgo message scrutiny when they can be confident that the message is accurate. In contrast, high-NC individuals enjoy thinking and should therefore be less likely to demonstrate cognitive miser effects.

In sum, the primary prediction examined in the current research is that the extent to which attitudes are based on message-processing activity for cognitive misers (individuals low in the need for cognition) will be influenced by the perceived accuracy of the information provided by the message source. The processing of non-misers (individuals high in the need for cognition) will be less influenced by perceptions of source accuracy.

PRELIMINARY STUDY

Before addressing our primary goals, we needed to determine which source traits are most strongly associated with perceptions of message accuracy. So, in a preliminary study, subjects were asked to evaluate the likelihood that a source with a given characteristic (e.g., likable) would provide accurate information. Because it is possible that low- and high-NC individuals would differ in the extent to which source characteristics indicated accuracy, our preliminary study examined inferences of accuracy as a function of source characteristics and need for cognition.

Method

PROCEDURE

Forty-four undergraduates at Ohio State University participated to partially fulfill course requirements in introductory psychology. All subjects received a booklet containing three pages: one instruction page, a second page presenting the source characteristics questionnaire, and a final page presenting the short Need for Cognition Scale (Cacioppo, Petty, & Kao, 1984).

First, all subjects read the following instructions:

Suppose that you wanted to get the most accurate information possible on a certain topic (for example, the pollution problem in California or deciding which car to buy). Below are described different possible sources from which you could get the information. For each source, please tell us how accurate you believe that source would be. Please use whatever percentage seems appropriate for each source. The higher the percentage, the more likely that the information from that source would be correct. For example, if you were absolutely certain that the source would not be accurate, you would write that there was a 0% chance that the information would be accurate. If you were absolutely certain that the source would be accurate, you would write that there was a 100% chance that the information would be accurate. Use any number between 0 and 100.

On the second page of subjects’ booklets were 17 pairs of sentences. The first sentence in each pair stated: “The source has been described as being . . .” Each sentence was completed by 1 of 17 characteristics (listed in Table 1).
TABLE 1: Mean Estimated Probability That Information Will Be Accurate as a Function of Characteristics of Message Source, Preliminary Study

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Probability</th>
<th>Rank Order</th>
<th>Characteristic</th>
<th>Probability</th>
<th>Rank Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honest</td>
<td>.84a</td>
<td>1.5</td>
<td>Motivated</td>
<td>.63a</td>
<td>10</td>
</tr>
<tr>
<td>Trustworthy</td>
<td>.84a</td>
<td>1.5</td>
<td>Open-minded</td>
<td>.61ef</td>
<td>11</td>
</tr>
<tr>
<td>Knowledgeable</td>
<td>.82a</td>
<td>3</td>
<td>Powerful</td>
<td>.57g</td>
<td>12</td>
</tr>
<tr>
<td>Expert</td>
<td>.74b</td>
<td>4</td>
<td>Likable</td>
<td>.56gh</td>
<td>13.5</td>
</tr>
<tr>
<td>Experienced</td>
<td>.75bc</td>
<td>5</td>
<td>Persistent</td>
<td>.56gh</td>
<td>13.5</td>
</tr>
<tr>
<td>Careful</td>
<td>.72bc</td>
<td>6</td>
<td>Optimistic</td>
<td>.52a</td>
<td>15</td>
</tr>
<tr>
<td>Similar</td>
<td>.70bd</td>
<td>7</td>
<td>Happy</td>
<td>.47l</td>
<td>16</td>
</tr>
<tr>
<td>Sincere</td>
<td>.69cd</td>
<td>8</td>
<td>Attractive</td>
<td>.45i</td>
<td>17</td>
</tr>
<tr>
<td>Unbiased</td>
<td>.65dc</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Probabilities not sharing a subscript are significantly different, p < .05.

The second sentence read: "There is a ——% chance that the information would be accurate." Subjects wrote in each blank their percentage estimate of the accuracy associated with the characteristic.

Subjects were classified as high or low in need for cognition as determined by a median split on the 18-item Need for Cognition Scale (Cacioppo et al., 1984). Subjects responded to the questionnaire on 5-point scales anchored at 1, extremely uncharacteristic of me, and 5, extremely characteristic of me. The median score was 63.5; scores ranged from 54 to 83.

Results and Discussion

The characteristic ratings were submitted to a 17 (Characteristic) × 2 (Need for Cognition: high vs. low) analysis of variance (ANOVA) with the first factor within- and the second factor between-subjects. Of greatest importance to the present study, the analysis revealed a significant main effect for characteristic, F(16, 672) = 16.7, p < .0001. Table 1 presents the mean percentage ratings for the 17 traits. Further analyses, using a least significant difference approach, revealed that the characteristics honest and trustworthy were most indicative of message accuracy and knowledgeable did not differ significantly. The remaining traits were significantly less likely to be associated with an accurate message than these three.

These results are interesting in light of prior conceptualizations of communicator accuracy. In particular, Eagly, Wood, and Chaiken (1978) distinguished between two types of communicator bias that could lead recipients to discredit the validity of a message. The first two traits in Table 1 (honest and trustworthy) are related to what Eagly et al. (1978) call reporting bias in that they refer to whether a communicator is willing to convey accurate information. The next two traits in Table 1 (knowledgeable and expert) are related to what Eagly et al. call knowledge bias in that they refer to whether a communicator is capable of conveying accurate information. That is, honest and trustworthy sources would presumably convey the truth if only they knew what it was, and knowledgeable and expert sources presumably know the truth but may or may not be willing to convey it.

For confidence that a communicator is accurate, the communicator should be both motivated (honest) and able (knowledgeable) to provide accurate information. To vary perceptions of message accuracy in our initial two studies, we decided to hold source knowledge and expertise constant at a relatively high level and vary directly the presumed honesty or trustworthiness of the source. That is, the source’s ability to be accurate was not in question, but the source’s willingness to be accurate was. In past relevant research, researchers have explicitly manipulated source expertise (ability to be accurate) but have not provided explicit information about source honesty. Therefore, source honesty seemed an appropriate focus for the current research. In studies varying source expertise but leaving source honesty questionable, people have shown, if anything, a greater tendency to think about what an expert than a nonexpert had to say (e.g., Heesacker, Petty, & Cacioppo, 1983; DeBono & Harnish, 1988). If source honesty is in question, it makes more sense to devote one’s limited cognitive resources to what knowledgeable people have to say than to waste time on a potentially dishonest source who would not be able to provide accurate information anyway because of lack of knowledge. However, if one can be reasonably confident that the source has the requisite knowledge to be accurate, then it makes more sense for a cognitive miser to engage in greater message scrutiny when the source’s honesty is in question than when it is not. If a source can be assumed to be both honest and knowledgeable, a cognitive miser will have little need to scrutinize the message in order to ascertain its merits. If the source is presumably knowledgeable but of questionable honesty, however, message scrutiny will be needed. The current research provides three experimental tests of this source honesty hypothesis.

In our first two studies, we varied subjects’ perceptions of the honesty and trustworthiness of a message source very directly. As noted previously, we hypothesized that
the attitudes of individuals low in need for cognition would be based less on their processing of a message associated with a very honest source than one who was of questionable honesty. The attitudes of individuals high in need for cognition were expected to be based on message scrutiny whether the source was perceived to be honest. Although our manipulation of source honesty was identical in Experiments 1 and 2, as noted previously and elaborated shortly, we used different procedures to determine the extent to which attitudes were based on message processing in each study.

EXPERIMENT 1

One of the most common procedures used to examine the degree to which individuals’ attitudes are based on their processing of a message is to examine the correlation between subjects’ message-relevant thoughts and their postmessage attitudes (e.g., Chaiken, 1980; Mackie, 1987; Petty & Cacioppo, 1979). The thought-listing procedure is accomplished by having subjects list the thoughts that came to mind while they were reading the message after they have completed the attitude measures. After listing their thoughts, subjects code each thought as positive, negative, or neutral in regard to the message. Attitudes are presumed to be based more on message scrutiny as the correlation between attitudes and valenced message-related thoughts increases (see Cacioppo & Petty, 1981).

In Experiment 1, high- and low-NC subjects read a message containing a mixture of strong and weak arguments. The message was attributed to a source that was described as high or low in honesty. Because all subjects read the same mixed message, no differences in attitudes were expected across the need-for-cognition and source honesty conditions. However, if the low-NC individuals who received a message from a trustworthy source processed the message less carefully than the low-NC individuals who received a message from a relatively untrustworthy source or the high-NC subjects regardless of source, then the correlation between postmessage attitudes and message-relevant thoughts should be smaller in this group than in the others.

Method

PROCEDURE

One hundred and eight undergraduates at Ohio State University participated to partially fulfill requirements for an introductory psychology course. Subjects were randomly assigned to the source honesty conditions. The design was a 2 (Source Honesty: high vs. low) x 2 (Need for Cognition: low vs. high) between-subjects factorial. Participants were classified as high or low in need for cognition by a median split on the short Need for Cognition Scale (Cacioppo et al., 1984). Experimental sessions were conducted in groups of 6 to 10. The data from 3 subjects who did not complete the thought-listing task were dropped.

On arrival at the lab, participants received experimental booklets. The first page of each booklet explained that the research concerned the processes that people use to form impressions of others. The subjects were told that to examine these processes, they would read information about an individual and then read an actual transcript of a presentation that the individual had given to an audience. Subjects were informed that the presentation was about the possible implementation of comprehensive exams for seniors in college. The exams were described as “tests that all students would need to pass in order to receive their degree. The exam would cover the area of the students’ major. For example, students majoring in marketing would have to pass a comprehensive exam on business in order to graduate.” No specific mention was made of whether the subjects’ own university was considering implementation of the exams. The experimenter read the instructions out loud as the subjects read the instructions to themselves. The booklets were made up of (a) the instruction page, (b) information on the source, (c) the meeting transcript (containing the persuasive message), (d) the dependent variables, (e) the thought-listing instructions, (f) a page for the subjects to record their thoughts, and (g) the Need for Cognition Scale. After all participants in a group had completed the experimental booklets, they were debriefed and excused.

MESSAGE

Pretesting with separate subjects was conducted on 14 arguments supporting the implementation of senior comprehensive exams. These arguments were taken from the examples in Petty and Cacioppo (1986). Minor revisions were made to the arguments to develop a pool of strong (those that elicited approximately 80% positive cognitive responses when subjects were instructed to think about them during pretesting) and weak (those that elicited approximately 80% negative cognitive responses) arguments. In the meeting transcript, all subjects read a message by “Dr. John McCarthy” supporting the implementation of senior comprehensive exams. The message was composed of two strong and two weak arguments (in the order strong, weak, strong, weak). The transcript began by having Dr. McCarthy state that on the basis of research conducted since 1980 he was in favor of implementing the exams.

INDEPENDENT VARIABLES

Source honesty. Subjects read about Dr. McCarthy on the page containing the information on the source. In both the high- and low-honesty conditions, it was stated
that Dr. McCarthy had worked in education for more than 25 years and that for the past 12 years he had held the position of vice-president in charge of undergraduate curriculum at the University of Chicago. This information was designed to create a perception of high knowledge and expertise across all experimental conditions.

In the high-source-honesty conditions, it was stated additionally that:

There is little question that Dr. McCarthy is a man of great trustworthiness, honesty, and sincerity. For example, he was recently in charge of deciding which academic units at the University of Chicago would be forced to take budget cuts due to decreased university funding. Rather than focus on other departments, he forced his own department to take a 15% decrease in funding. When asked about this decision, Dr. McCarthy stated that "in all truthfulness, there was more fat in my department than others, thus it was only correct that my department suffer the consequences." Those who know Dr. McCarthy were not surprised by his action, because he is known for being honest and sincere, and the fact that his department was indeed over-staffed.

In the low-source-honesty conditions, it was stated that:

There is little question that Dr. McCarthy is not a man of great trustworthiness, honesty, and sincerity. For example, he was recently in charge of deciding which academic units at the University of Chicago would be forced to take budget cuts due to decreased university funding. Rather than focus on his own department, he forced other departments to take a 15% decrease in funding. When asked about this decision, Dr. McCarthy stated that "in all truthfulness, there was more fat in other departments than mine, thus it was only correct that other departments suffer the consequences." Those who know Dr. McCarthy were not surprised by his action, because he is known for being dishonest and insincere, and the fact that his own department was indeed over-staffed.

Need for cognition. Subjects completed the Need for Cognition Scale after responding to all other measures. Subjects were classified as high or low in need for cognition as determined by a median split. The median score was 60.5, with scores ranging from 31 to 81.

DEPENDENT VARIABLES

Source honesty manipulation check. After reading the meeting transcript, subjects were asked to answer all questions without looking back through the booklet. To determine whether the source was perceived differently as a function of the source honesty manipulation, subjects were asked to rate Dr. McCarthy's honesty on an 11-point scale with dishonest equal to 1 and honest equal to 11. This critical manipulation check question was embedded in a list of six other positive-negative traits (e.g., likable/unlikable), which were also assessed on 11-point scales.

Attitude measure. Following the trait measures, subjects read that "because your impression ratings of Dr. McCarthy could have been influenced by your personal opinion on senior comprehensive exams, we would like you to answer some questions on the topic of senior comprehensive exams." The subjects were asked, first: "What is your opinion on the implementation of senior comprehensive exams?" They responded on an 11-point scale with 1 equal to strongly oppose and 11 equal to strongly favor. This question was followed by a four-item semantic differential scale. Subjects were asked to "rate how you feel about the implementation of senior comprehensive exams." Each semantic differential was on an 11-point scale, with negative, foolish, harmful, and bad equal to 1 and positive, wise, beneficial, and good equal to 11. Following the semantic differential scale, the subjects were asked, "How would you feel about the implementation of senior comprehensive exams at Ohio State University?" Subjects responded on an 11-point scale with 1 equal to strongly oppose and 11 equal to strongly favor.

Cognitive responses. After completing the attitude measures and before completing the Need for Cognition Scale, individuals were asked to list the thoughts that came to mind while they were reading the message and to write each thought in a box provided on a separate page. A page containing eight boxes was provided. Subjects were instructed to use only as many boxes as needed to record their thoughts. They read that they should spend at least 3 but no more than 10 min listing their thoughts. After listing their thoughts, they were instructed to code each of the thoughts they listed as favorable toward the message proposal, unfavorable toward the proposal, or neutral/unrelated to the message topic (i.e., senior comprehensive exams).

Results

Source honesty. Of critical importance was the perceived honesty of the source as a function of the source honesty manipulation. Consequently, the honest/dishonest rating was subjected to a 2 (Source Honesty) × 2 (Need for Cognition) ANOVA. This analysis yielded a significant main effect for source honesty, F(1, 101) = 180, p < .0001. Subjects exposed to the high-honesty source rated him as more honest (M = 9.5) than subjects exposed to the low-honesty source (M = 4.7).4

Attitude measures. As the standardized alpha coefficient for the attitude measures was .97, an attitude index was created by averaging each subject’s responses to the six individual attitude items. As expected, analysis of the attitude index produced no significant findings.
Cognitive responses. A cognitive response index was created by subtracting the unfavorable from the favorable thoughts about the message topic, and the correlation between the message thought index and the postmessage attitude index was computed for each of the four experimental groups. The results of these correlational analyses are presented in Table 2. Examination of Table 2 reveals that the relationship between message thoughts and attitudes emerged as predicted. The correlation between thoughts and postmessage attitudes for low-NC individuals exposed to the trustworthy source is nonsignificant, whereas the correlation for low-NC individuals exposed to the untrustworthy source is significant. And, as predicted, the correlation between message thoughts and postmessage attitudes is significant regardless of source for the individuals high in need for cognition.

To test whether the correlation for low-NC subjects exposed to the trustworthy source differed significantly from correlations in the other three conditions, a single correlation coefficient was computed for these conditions, and a Fisher's $r$ to $z$ transformation was performed to compare the two correlation coefficients. As predicted, this analysis revealed a significant difference between the low-NC subjects exposed to the trustworthy source and the other three conditions, $z = 1.89, p < .03$ (one-tailed). That is, as predicted, the postmessage attitudes of low-NC subjects exposed to the trustworthy source were based less on their thoughts about the message than the attitudes of subjects in the other three conditions.

EXPERIMENT 2

Although the procedure of examining the correlation between message-related cognitive responses and postmessage attitudes is commonly used as an indicator of the extent of message-based persuasion, it has not been accepted without criticism (e.g., see Eagly & Chaiken, 1993; Miller & Colman, 1981; Petty & Cacioppo, 1986). For example, it might be argued that it is possible that higher correlations reflect subjects' enhanced attempts to justify their attitudes rather than their more extensive message scrutiny during exposure to the communication. In response to criticisms about the thought-listing measure, manipulation of message argument quality was introduced as an alternative means of assessing the extent of message-based persuasion (Petty, Wells, & Brock, 1976; see Petty & Cacioppo, 1986, pp. 30-44). The logic of manipulating argument quality to assess message-based persuasion is that when individuals are exposed to a message under specific conditions that foster message processing (e.g., high personal relevance; Petty & Cacioppo, 1979), the quality of the arguments should have a larger impact on attitudes than when message processing is low. Since its introduction, argument quality has been manipulated along with a large number of other variables in an attempt to examine the impact of these variables on message processing (e.g., Axson et al., 1987; Bless, Bohner, Schwarz, & Strack, 1990; Burnkrant & Unnava, 1989; Leippe & Elkin, 1987; Mackie & Worth, 1989; Petty & Cacioppo, 1984; Wood, Kallgren, & Preiser, 1985).

If, as found in Experiment 1, individuals low in need for cognition process a message associated with a relatively honest source less carefully than a message associated with a relatively dishonest source, a Source $\times$ Argument Quality interaction should emerge. That is, low-NC subjects who read a message associated with an honest source should show a smaller difference in persuasion for strong versus weak arguments than low-NC subjects who read a message associated with a dishonest source. In contrast to this interaction pattern, only a main effect for argument quality is hypothesized for high-NC subjects, because they are expected to base their attitudes on message scrutiny regardless of the source. Because of the different attitude patterns predicted for high- and low-NC individuals, overall a threeway interaction of source honesty, need for cognition, and argument quality is expected.

Method

SUBJECTS AND PROCEDURE

Subjects were 163 undergraduates at Ohio State University who participated in partial fulfillment of requirements for an introductory psychology course. They were randomly assigned to the source honesty and argument quality conditions. The design was a $2$ (Source Honesty: high vs. low) $\times 2$ (Argument Quality: strong vs. weak) $\times 2$ (Need for Cognition: low vs. high) between-subjects factorial. Participants were classified as high or low in need for cognition by a median split on the short Need for Cognition Scale (Cacioppo et al., 1984). Experimental sessions were conducted in groups of 6 to 10. The procedure was identical to that of Experiment 1.

INDEPENDENT VARIABLES

Source honesty. Source honesty was manipulated in the same way as in Experiment 1.

TABLE 2: Correlations Between Attitudes and Valenced Message Thoughts by Need for Cognition and Source Trustworthiness, Experiment 1

<table>
<thead>
<tr>
<th>Need for Cognition</th>
<th>Trustworthy Source</th>
<th>Untrustworthy Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td>p</td>
</tr>
<tr>
<td>Low</td>
<td>.22</td>
<td>&gt;.25</td>
</tr>
<tr>
<td>High</td>
<td>.67</td>
<td>&lt;.005</td>
</tr>
</tbody>
</table>

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**Argument quality.** As in Experiment 1, all subjects read a message supporting the implementation of senior comprehensive exams. However, argument quality was manipulated such that half the subjects read four strong arguments and half read four weak arguments in favor of the exams. The arguments were taken from the same pool of strong and weak arguments developed for Experiment 1 and adapted from those described by Petty and Cacioppo (1986).

**Need for cognition.** Subjects completed the Need for Cognition Scale after responding to all other measures. Subjects were classified as high or low by a median split. The median score was 63.5, with scores ranging from 30 to 85.

**DEPENDENT VARIABLES**

Subjects completed the same dependent measures in the same order as in Experiment 1, except that because of the 30-minute experimental session, subjects did not complete the thought-listing task.

**Results**

**Source honesty.** The honest/dishonest manipulation check was subjected to a 2 (Source Honesty) × 2 (Argument Quality) × 2 (Need for Cognition) ANOVA. This analysis yielded two significant main effects: one for the honesty manipulation, $F(1, 155) = 263.3, p < .0001$, and another for the argument quality manipulation, $F(1, 155) = 3.9, p < .05$. As in Experiment 1, subjects exposed to the high-honesty source rated him as more honest ($M = 9.4$) than subjects exposed to the low-honesty source ($M = 4.8$). These ratings were virtually identical to those obtained in Experiment 1. Subjects also rated the communicator as more honest when he used strong ($M = 7.5$) rather than weak ($M = 6.9$) arguments.

**Attitude measures.** As in Experiment 1, an attitude index was created by averaging each subject’s responses to the six individual attitude items. Analysis of the attitude index produced four significant findings. The means and standard deviations for all eight experimental conditions are presented in Table 3 and graphed in Figure 1. First, there was a main effect for argument quality, $F(1, 155) = 81.4, p < .0001$. Not surprisingly, subjects who read strong arguments were more persuaded by the message in favor of the implementation of senior comprehensive exams ($M = 8.7$) than subjects who read weak arguments ($M = 6.2$). Second, there was a Need for Cognition × Argument Quality interaction, $F(1, 155) = 4.8, p < .05$. Consistent with past research (e.g., Cacioppo et al., 1985; Hautsvedt et al., 1992), subjects high in need for cognition showed greater attitudinal impact as a function of argument quality (strong $M = 8.9$, weak $M = 5.9$) than subjects low in need for cognition (strong $M = 8.3$, weak $M = 6.4$). Third, consistent with the notion that source honesty would influence message scrutiny, there was a Source Honesty × Argument Quality interaction, $F(1, 155) = 13.1, p < .005$. Overall, subjects who read the message associated with the honest source showed less argument quality differentiation (strong $M = 8.5$, weak $M = 6.9$) than subjects who read the message associated with the relatively dishonest source (strong $M = 8.9$, weak $M = 5.5$).

Of greatest interest, however, these results were qualified by the predicted three-way interaction, $F(1, 155) = 6.2, p < .05$. The three-way interaction was decomposed by analyzing the Source Honesty × Argument Quality interactions for high- and low-NC subjects separately. For subjects low in need for cognition, there was a significant main effect of argument quality, $F(1, 77) = 23.5, p < .0001$. As predicted, however, this main effect was qualified by a significant Source Honesty × Argument Quality interaction, $F(1, 77) = 18.8, p < .0001$. Low-NC subjects who read the message associated with the dishonest source were more persuaded by strong ($M = 9.0$) than by weak arguments ($M = 5.5$), $F(1, 41) = 69.5, p < .0001$. When the message was associated with the honest source, however, low-NC subjects were not attentive to argument quality (strong $M = 7.6$, weak $M = 7.4$), $F(1, 36) < 1, p > .5$. In contrast, the two-way interaction for the high-NC subjects was not significant, $F(1, 78) = 1.8, p > .4$. Rather, only a main effect for argument quality, $F(1, 78) = 64.5, p < .0001$, was observed. High-NC subjects who read strong arguments were more persuaded ($M = 8.9$) than those who read weak arguments ($M = 5.9$), regardless of the source. Thus, the attitude results were consistent with the hypothesized message scrutiny pattern for low- and high-NC subjects.

**Discussion**

Although both high- and low-NC subjects perceived the source as intended (i.e., as honest or dishonest), this information influenced the message-processing activity of low-NC individuals only. Specifically, the attitudes of individuals low in need for cognition were influenced by message quality to a greater extent when the message was associated with the source low rather than high in honesty. This provides a conceptual replication of Experiment 1, in which the attitudes of individuals low in need for cognition were correlated with their message-relevant thoughts when the message was presented by a source low in honesty but not when the source was high in honesty. Individuals high in need for cognition, however, were influenced by message content to the same extent regardless of source honesty. Again, this parallels the results of Experiment 1, which found that attitudes were equivalently correlated with message-relevant thoughts regardless of source honesty. In short, our
primary hypothesis was supported by the results of both Experiments 1 and 2.

One potential criticism of both of our source honesty experiments, however, concerns their rather obvious manipulation of source honesty. Outside of some unusual settings (e.g., psychology experiments, the courtroom), people are seldom given such unfiltered, definitive information on the honesty of a message source as we provided. Rather, individuals are more typically in the position of possessing some type of suggestive, but not definitive, information about an individual on which to base an impression. Therefore, a more realistic test of our hypothesis would be provided by a situation in which subjects were given information from which they could make their own attributions concerning the honesty of the communicator. Varying source honesty in a more realistic way would provide evidence for the general utility of the present hypothesis. One goal of Experiment 3, then, was to vary perceptions of communicator honesty in a more indirect fashion.
In addition, there is a possible alternative explanation for the findings of Experiments 1 and 2. This alternative stems from the possible confounding of source honesty and expectancy violations. That is, all subjects were first presented with information leading them to believe that the source possessed a positive trait (i.e., expertise). Then some subjects were presented with an evaluatively consistent description (i.e., honest), but others were presented with an evaluatively inconsistent characterization (i.e., dishonest). Thus, in the “honest” condition, subjects were explicitly presented with two positive characterizations of the source, but in the “dishonest” condition, subjects were explicitly presented with evaluatively inconsistent information. Although we have no evidence in this regard, subjects might have found it surprising that an expert would be dishonest, and the processing pattern found for subjects low in need for cognition exposed to the dishonest source could have been caused by this violation of expectancies (e.g., see Maheswaran & Chaiken, 1991; Pyszczynski & Greenberg, 1981). A second goal of Experiment 3 was to address this alternative explanation by constructing a situation in which the source who violated expectancies would be presumed to be more honest than the source who did not violate expectancies—the opposite confounding to that in Experiments 1 and 2.

To summarize, the pattern of correlations between message-relevant thoughts and postmessage attitudes in Experiment 1 and the interaction of source honesty, message quality, and need for cognition on attitudes in Experiment 2 are consistent with the hypothesis that perceptions that a knowledgeable source is honest lead to a reduction in message scrutiny, for individuals who do not like to think, compared with perceptions that a source is of questionable honesty. The results of Experiments 1 and 2 are not definitive, however, for two reasons. First, it is desirable to vary perceptions of source honesty using a more naturalistic method. Second, it is desirable to vary source honesty in a manner such that the dishonest source is less associated with violations of expectancies than the honest source. Experiment 3 was designed to address these issues.

EXPERIMENT 3

As noted earlier, current models of persuasion such as the ELM and HSM assume that accuracy motives are instrumental in determining the extent of message processing but have not tested this notion directly. In particular, these approaches suggest that if message recipients have insufficient confidence in the validity of the position advocated, they are likely to undertake the cognitive work necessary to attain this confidence (Eagly & Chaiken, 1993). Interestingly, a similar assumption was part of a theory of attitude change advanced in the late 1970s in a series of articles by Eagly, Chaiken, and Wood—the attributional analysis of persuasion (AAP; Eagly & Chaiken, 1975; Eagly, Chaiken, & Wood, 1981; Eagly et al., 1978; Wood & Eagly, 1981). A central idea in the AAP is that individuals are likely to forgo processing of persuasive messages when they conclude that the communicator is truthful and the message is accurate.

The Attributional Analysis of Persuasion

In brief, the AAP predicts that we can make inferences about a source’s accuracy on the basis of whether the source confirms or disconfirms our expectancies about the specific message position to be taken. For example, consider the fact that a source might espouse an inaccurate position if he or she had something to gain from doing so. That is, even if sources know better (i.e., have the knowledge to be accurate), they might adopt an inaccurate position if doing so is in their interest. Thus, an attorney might adopt a position that favors his client to win the case, or a politician might adopt the position supported by an audience to gain votes. Consequently, when a knowledgeable source takes an expected position, one cannot be certain that the source is being honest with us. However, if a knowledgeable source violates expectancies, we are more likely to assume that the source has overcome his or her biases and is being honest. If this inference occurs, the recipient should accept the message with little processing. In contrast, the AAP predicts that when a communicator confirms recipient expectancies about the position to be taken, the recipient will not be able to assume that the source is honest or that the message is accurate, and the recipient will “be more likely to scrutinize what the communicator actually said in order to remove questions concerning message validity” (Eagly et al., 1981, p. 56). Support for the AAP prediction that disconfirmation of expectancies leads to more persuasion than confirmation of expectancies has been provided in three studies (Eagly & Chaiken, 1975; Eagly et al., 1978; Wood & Eagly, 1981). However, evidence regarding the prediction that disconfirmation of expectancies produces less processing of the persuasive communication than confirmation of expectancies has been inconclusive.

In the AAP research, argument recall has been used to assess the amount of message processing induced by confirmation versus disconfirmation of expectancies. The results of the first AAP study (Eagly & Chaiken, 1975) showed that expectancy disconfirmation led to more argument recall than expectancy confirmation (in apparent contradiction of the AAP hypothesis). The results of the second AAP study (Eagly et al., 1978) showed no difference in argument recall due to expectancies. Only the third study (Wood & Eagly, 1981)
showed the hypothesized pattern of expectancy disconfirmation leading to reduced argument recall. In sum, although the AAP has correctly predicted the outcome of greater persuasion with disconfirmed expectancies, the data have been conflicting as to the differences in message processing induced by confirmation versus disconfirmation of an expected message position.

One possible explanation for the lack of consistency in the recall data is that argument recall is not always an accurate measure of the type of message processing critical for persuasion. For example, focusing on recalling arguments during message presentation could, under some conditions, disrupt the very act of cognitively responding to a message (e.g., Mackie & Asuncion, 1990). In support of this possibility, a number of studies have shown that responses to argument quality can lead to different inferences about message processing than argument recall (e.g., Petty, Cacioppo, & Heesacker, 1981).

Goals of Experiment 3

The primary purpose of Experiment 3 is to use the AAP expectancy confirmation/disconfirmation manipulation to provide a test of our source honesty hypothesis. In particular, use of the AAP expectancy manipulation allows a test of the source honesty hypothesis with procedures that are more naturalistic and remove the confound of dishonesty with explicit violation of expectancies that might have been present in Experiments 1 and 2. In fact, with the AAP manipulation, the opposite confound is present. That is, the expectancy-confirming source is predicted to be seen as less honest than the expectancy-disconfirming source.

Thus, if low-NC individuals engaged in greater scrutiny of the dishonest source’s message in Experiments 1 and 2 because of the questionable honesty of the source, low-NC subjects should process the message of the expectancy-confirming source in Experiment 3, because this source should be associated with greater perceptions of dishonesty than the expectancy-disconfirming source. However, if low-NC subjects engaged in greater processing of the dishonest source’s message in Experiments 1 and 2 because of the violation of expectancies involved, these individuals should process the message associated with the expectancy-disconfirming (more honest) source more than the expectancy-confirming (less honest) source in Experiment 3.

In Experiment 3, we manipulated whether the source confirmed or disconfirmed expectancies about the position he would take, along with the quality of the arguments in the communication. As in Experiments 1 and 2, need for cognition was assessed at the end of the session. In this study, both our source honesty hypothesis and the alternative hypothesis predict an Expectancy × Argument Quality × Need for Cognition interaction on the attitude measure, but the form differs for the two hypotheses. The source honesty explanation predicts that argument quality should have a larger impact on attitudes for the expectancy-confirming (i.e., less honest) source, whereas the expectancy (i.e., surprise) hypothesis predicts the opposite—that argument quality should have a larger impact on attitudes for the expectancy-disconfirming (i.e., more honest) source. Both hypotheses can accommodate the fact that the Expectancy × Argument Quality interaction (of whatever form) would hold mostly for low-NC individuals. As in Experiment 2, high-NC subjects are expected to be influenced by argument quality regardless of expectancy confirmation/disconfirmation or inferred honesty/dishonesty.

To examine these issues, in Experiment 3 we used the expectancy confirmation and disconfirmation manipulations and materials employed in the AAP study conducted by Eagly et al. (1978). We hypothesized that, consistent with the AAP, when a source disconfirmed expectancies about the message position he would take, he would be seen as more honest than when he confirmed premessage expectations. Second, in support of our source honesty hypothesis, we predicted that low-NC individuals would process the message of the more honest (expectancy disconfirming) source less than the message of the less honest (expectancy confirming) source.

A secondary goal of the current study is to link the AAP with current models of persuasion such as the ELM and HSM. Recall that the AAP used argument recall to assess message processing rather than assessing message scrutiny by examining the impact of strong and weak arguments on attitudes (see Note 10). The AAP predicts that an expectancy-disconfirming source should be more persuasive than an expectancy-confirming source because perceptions of the source’s accuracy are more positive. However, because recipients are hypothesized to be scrutinizing (rather than simply learning) the message of a confirming source, it is possible that if the arguments in the message are quite compelling, confirming sources could be as persuasive as disconfirming sources. That is, the persuasion resulting from the effortful scrutiny of the strong arguments of a confirming source could equal (or even exceed) the persuasion produced by the less effortful acceptance of the message of the disconfirming source based on its attributed accuracy. Thus, although the AAP did not explicitly consider the strength of arguments presented by the source, a consideration of argument strength suggests that disconfirmed expectancies should lead to more persuasion than confirmed expectancies mostly when the message contains weak or only moderately persuasive arguments or when ability to process the message is compromised.
Disconfirmation of expectancies and attributed message accuracy would be less likely to have persuasion advantages over confirmation of expectancies if the message arguments are strong. If these results are obtained, they would provide an important caveat to the general AAP prediction of greater persuasion for expectancy-disconfirming sources. A second caveat to the AAP prediction is that the effects of expectancy confirmation/disconfirmation on message processing should be most evident for subjects low in need for cognition.

Method

SUBJECTS AND PROCEDURE

Eighty-four undergraduates at Ohio State University participated to partially fulfill course requirements for introductory psychology. Subjects were randomly assigned to one of four conditions in a 2 (Expectancy: confirmed or disconfirmed) × 2 (Argument Quality: strong or weak) factorial experiment. In addition, subjects were classified as high or low in need for cognition by a median split on the short Need for Cognition Scale. Experimental sessions were conducted in groups of 8 to 12.

Subjects received instructions similar to those used in the previous experiments. When they arrived at the lab, the experimenter explained that the research was investigating the processes that individuals use to form impressions of others. The subjects were told that to examine these processes, they would read information about a social issue and information about an individual and a group and then would receive a meeting transcript of the individual giving his position on the social issue to the group. It was explained that the experimenter was interested in their impressions of the individual and the group. Subjects then received an experimental booklet. The booklets were made up of (a) an instruction page that reiterated the cover story, (b) background information on the social issue, (c) general information on the speaker and the audience (establishing the expectancies), (d) an initial expectation questionnaire in which were embedded three expectancy manipulation check questions, 12 (e) the meeting transcript (containing the persuasive message), (f) the dependent measures, and (g) the short Need for Cognition Scale. After all participants in a group had completed the experimental booklets, they were debriefed and excused.

BACKGROUND MATERIAL

The procedure and materials in this study were adapted from Eagly et al. (1978). As in their study, the issue concerned how to best resolve a pollution problem that faced Easton, a fictitious town in the Northwest. Subjects read that a major industry in the area, Farraday Aluminum Company, had been dumping its industrial waste into the Pottet River. Because of this industrial waste, the river was becoming increasingly polluted. This pollution threatened the livelihood of the businesses supported by tourism, as well as the ecological balance of the area in general.

Subjects read that two opposing solutions to the pollution problem had been proposed. The solution favored by Farraday officials and other interest groups dependent on the stability of Farraday was that Farraday should be allowed to continue production while making gradual changes to its waste disposal methods. The solution favored by the tourism industry and environmentalists was that Farraday should be forced to stop all production immediately in order to institute major changes in its waste disposal methods.

INDEPENDENT VARIABLES

Message expectancy. As in the relevant conditions of the Eagly et al. (1978) study, subjects first read about Jack Reynolds and the audience that he was to address. It was stated that Jack Reynolds was a mayoral candidate who is a "well-liked, well-known Eastton lawyer who is new to politics." The audience was described as being composed of "influential citizens whose support is considered important in the election." Additionally, the group was said to hold strong views on the Farraday pollution issue.

Because the speaker always favored a proenvironment position, subjects in the confirmed expectancy conditions read information suggesting that Jack Reynolds would support the tourism/environmentalism position. Specifically, they read that the audience that this mayoral candidate was to address was the Citizens for the Environment. This group was described as being composed of various interest groups dependent on tourism, public health officials, and environmentalists concerned with the protection of the river. Consequently, subjects might reasonably expect that to please this group, the speaker would take a proenvironmental position. To strengthen this expectation, subjects were informed that in the past Reynolds had worked for a group of Easton citizens who wished to sue a major landfill business and that his work was considered instrumental in causing the business to relocate the dump.

In the disconfirmed expectancy conditions, subjects read information suggesting that Jack Reynolds would support the Farraday position. Specifically, they read that the audience to be addressed was the Citizens for Industrial Growth, a group composed of Farraday Company officials and workers as well as various members of the Easton business community whose businesses depended on the stability of the Farraday Company. That is, the audience was described as having interests in the anti-environmental position of allowing Farraday to continue production. Given that this group was described as very important to the election, subjects would presum-
ably expect that mayoral candidate Reynolds would adopt an anti-environmental position. To strengthen this expectation, the subjects were informed that in the past Jack Reynolds had worked for a major landfill business to defend it against a group of citizens who were suing it and that his work was considered instrumental in allowing the business to maintain a dump in its present location (see Note 11).

**Argument quality.** Because Eagly et al. (1978) did not vary argument quality, pretesting with separate subjects was conducted on 16 arguments that supported the position that the Farraday Aluminum Company should institute major changes in its waste disposal methods (i.e., the pro-environment position). The three strongest arguments were selected for the strong argument message, and the three weakest were selected for the weak argument message (see Petty & Cacioppo, 1986, pp. 54-55, for pretesting procedures). An example of a strong argument is:

> The fact is that if we do not make major changes immediately, we will no longer have a tourism industry. If the pollution is not stopped immediately, the ecological balance of the river and surrounding areas will be damaged to the point that we will not be able to correct the problem. The time to act is now, and we must act quickly. Farraday will survive, and in all likelihood become a better company in the process of changing, even if it has to temporarily cease production, whereas the ecological balance that creates the nature and beauty that support our tourism industry will cease to exist if we do not make major changes immediately.

The other strong arguments were concerned with the ease with which the changes could be implemented and strong information concerning the hazards of industrial waste from a report issued by the National Health and Environmental Task Force. An example of a weak argument is:

> According to company records, the workers at Farraday Aluminum Company work an average of 53.5 hours per week. Forcing the company to stop all production until its waste disposal methods are corrected would provide at least a couple of weeks, if not months, of much needed vacation to the workers. During this vacation the workers would have a chance to be with their families and to develop hobbies. Even though they will not have as much income because they will be temporarily out of work, they will be able to spend time with their children and be able to socialize with friends that they have not seen for a long time due to the extreme number of hours that they have been working. Not only would this prove beneficial to the employees during the shutdown, but it would also be excellent for the community as a whole, since the workers would be rested, and consequently, better citizens.

The other weak arguments concerned the size of the fish in the river and weak information on the hazards of industrial waste from a report issued by the National Health and Environmental Task Force.

**Need for cognition.** Subjects were classified as high or low in need for cognition by a median split on the 18-item Need for Cognition Scale. The median score in this study was 61.5, with scores ranging from 29 to 84.

**DEPENDENT VARIABLES**

**Expectancy manipulation checks.** After the general information, but before the persuasive message, subjects completed two pages of "Preliminary Impressions." The preliminary impression items included a number of questions intended to maintain the impression formation cover story (e.g., "How wealthy do you believe Jack Reynolds to be?")), followed by the critical expectancy checks. These three questions asked (a) what position the group that Jack Reynolds was to address held on the Farraday pollution problem, (b) what position Jack Reynolds held previously on the pollution problem, and, of greatest importance, (c) what position subjects expected Jack Reynolds would support in his speech to the group. Subjects responded on 11-point bipolar scales anchored with 1, continue production while making gradual changes, and 11, stop production and make major changes. A second set of manipulation checks for expectancy consisting of four questions was taken after the key dependent measure following the persuasive message.

**Source honesty.** After reading the meeting transcript, the subjects completed "Final Impression Questions." The eight cover questions from the Preliminary Impression Questionnaire were repeated to maintain the cover story. After the eight questions, the subjects were asked to rate Jack Reynolds on the same traits used in Experiments 1 and 2. The key measure was the rating of the honesty/dishonesty of the source. As in the previous studies, this measure was embedded in a list of six other traits, and responses to all traits were assessed on 11-point bipolar scales with the positive dimension of the trait (e.g., honest) equal to 11 and the negative dimension (e.g., dishonest) equal to 1.

**Attitude measure.** After the trait ratings, subjects read that "because your impression ratings of Jack Reynolds and the group could have been influenced by your personal opinion of the Farraday pollution issue, we would like you to answer some questions on the pollution issue." Subjects were then asked, "What is your opinion on the Farraday pollution issue?" They answered on an 11-point bipolar scale from 1, continue production while making gradual changes (i.e., the probusiness position), to 11, stop production and make major changes (i.e., the proenvironment position advocated in the message).
Results

Expectancy manipulation and source honesty. Manipulation checks for the effectiveness of the expectancy manipulation were taken at two points—before the persuasive communication and after the critical attitude measure. These measures were subjected to 2 (Expectancy) × 2 (Argument Quality) × 2 (Need for Cognition) ANOVAs. Before receiving the message, subjects in the confirmed expectancy conditions correctly believed that the group to be addressed held a position of stopping production and making major changes (M = 9.84), whereas subjects in the disconfirmed expectancy conditions believed that the group held the position of supporting continued production while making gradual changes (M = 4.39), F(1, 76) = 78.92, p < .0001. Similarly, subjects in the confirmed expectancy conditions correctly believed that the communicator’s past behavior was consistent with the position of stopping production and making major changes (M = 7.81), whereas subjects in the disconfirmed expectancy conditions believed that the communicator’s past behavior was consistent with the position of supporting continued production while making gradual changes (M = 2.76), F(1, 76) = 72.39, p < .0001. Of most interest, subjects in the confirmed expectancy conditions believed that the speaker would advocate in his speech to the group the position of stopping production and making major changes (M = 8.84), whereas subjects in the disconfirmed expectancy conditions believed that the speaker would advocate the position of supporting continued production while making gradual changes (M = 2.73), F(1, 76) = 121.16, p < .0001. Other than these main effects for expectancy, no other results were significant. Thus subjects formed the appropriate expectancies before reading the message.14

Of considerable importance was whether the expectancy manipulation produced the intended effects on the perceived honesty of the source. A 2 (Expectancy) × 2 (Argument Quality) × 2 (Need for Cognition) ANOVA on the measure of source honesty yielded a main effect for the expectancy manipulation, F(1, 76) = 5.45, p < .05. As predicted by the AAP, subjects exposed to the expectancy-disconfirming source rated him as more honest (M = 9.4) than subjects exposed to the expectancy-confirming source (M = 8.5).14

Attitudes. A 2 (Expectancy) × 2 (Argument Quality) × 2 (Need for Cognition) ANOVA on the attitude measure produced two significant findings. First, there was a main effect for argument quality. Not surprisingly, subjects who read strong arguments were more persuaded by the proenvironment message (M = 9.0) than subjects who read weak arguments (M = 5.3), F(1, 76) = 38.1, p < .0001. More important, however, this main effect was qualified by a significant Expectancy × Argument Quality × Need for Cognition interaction, F(1, 76) = 4.79, p < .05. The means and standard deviations for the eight experimental conditions are presented in Table 4 and graphed in Figure 2.

As in Experiment 2, the three-way interaction was decomposed by analyzing the Expectancy × Argument Quality interactions for high- and low-NC subjects separately. The two-way interaction predicted for low-NC subjects was marginally significant, F(1, 76) = 3.6, p < .07. Further analyses showed that in the confirmed conditions there was a significant difference between the strong and weak argument conditions, F(1, 76) = 13.7, p < .001, whereas in the disconfirmed conditions this difference was not significant, F(1, 76) = 1.9, p > .2. In contrast, the two-way interaction for high-NC subjects did not approach significance, F(1, 76) = 1.4, p > .2. Rather, there was simply a main effect for argument quality, F(1, 76) = 25.2, p < .0001.

In sum, the significant three-way interaction on the attitude measure was consistent with our source honesty hypothesis. That is, the attitudes of individuals low in need for cognition were based more on their reactions to the message arguments when their expectancies were confirmed than when their expectancies were disconfirmed. In short, they engaged in greater message evaluation as the source decreased in perceived honesty. High-NC subjects, in contrast, considered the quality of the message arguments to the same extent regardless of expectations or inferences about the source.

Discussion

Experiment 3 was conducted for two reasons. First, it provided an opportunity to replicate the processing pattern found in Experiments 1 and 2 using a more naturalistic manipulation of perceived source honesty. That is, in contrast to Experiments 1 and 2, where information about relative source honesty was provided directly and in a blatant manner, in Experiment 3, subjects had to make an inference about the relative trustworthiness of the source from the extent to which he confirmed or disconfirmed their premassage expectations about the position he would take. Second, Experiment 3 offered a test of whether a violation of expectations was critical for obtaining the effects observed in Experiments 1 and 2. Recall that both the source honesty and the “surprise” (violation of expectations) explanations predicted a significant Expectancy × Argument Quality interaction for the low-NC subjects in Experiment 3. However, the specific forms of the predicted interactions were exactly opposite: The source honesty explanation predicted a greater argument quality difference for the confirmed than the disconfirmed expectancy subjects, whereas the surprise explanation predicted a greater argument quality difference for the disconfirmed than the confirmed...
TABLE 4: Mean Scores on the Attitude Index by Need for Cognition, Argument Quality, and Expectancy, Experiment 3

<table>
<thead>
<tr>
<th>Need for Cognition</th>
<th>Argument Quality</th>
<th>Disconfirming Source</th>
<th>Confirming Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Low</td>
<td>Strong</td>
<td>7.5</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>Weak</td>
<td>5.9</td>
<td>3.2</td>
</tr>
<tr>
<td>High</td>
<td>Strong</td>
<td>10.2</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>Weak</td>
<td>4.6</td>
<td>3.5</td>
</tr>
</tbody>
</table>

NOTE: Scores could range from 1 to 11; higher numbers indicate greater acceptance of the message position.

Figure 2  Attitude as a function of expectancy, argument quality, and need for cognition, Experiment 3.

expectancy subjects. Both explanations predicted no difference in message scrutiny as a function of expectancy for subjects high in need for cognition.

Our results are clearly consistent with the predictions based on perceptions of source honesty. Despite the dramatic differences in procedure in Experiments 2 and 3, the results were virtually identical and consistent with the pattern found in Experiment 1. That is, in all three experiments, the attitudes of low-NC subjects became less dependent on message scrutiny as the source was perceived to be more honest. This is consistent, of course, with two assumptions of current persuasion models (ELM and HSM). First, the present results bolster the notion that perceptions of source accuracy play an important role in determining the extent of message scrutiny. Second, the results provide support for the cognitive miser notion in that it was only misers (i.e., low-NC individuals) whose message processing was influenced by perceptions of source accuracy. That is, low-NC subjects engaged in message scrutiny only when they had
to in order to hold correct attitudes. Attitudes of people who liked to think (i.e., the nonmiserly high-NC subjects) were based on message scrutiny to the same extent regardless of perceived source trustworthiness.

The results of Experiment 3 also supported the processing patterns we derived from the AAP (Eagly et al., 1981). The results of Experiment 3 suggest two caveats to the AAP predictions, however. First, the AAP's prediction that expectancy disconfirmation leads to less processing is correct but must be qualified in a reasonable way. That is, when expectancy disconfirmation leads to inferences of source honesty, it leads to decreased message processing compared with confirmation, but this tendency is especially strong for people who do not enjoy thinking. Second, expectancy disconfirmation does not invariably lead to greater influence than expectancy confirmation. Rather, this presumably cue-based effect postulated by the AAP (i.e., persuasion due to inferred source honesty or message accuracy) is most likely for low-NC subjects who are presented with a weak or only moderately compelling message. When the message arguments are strong, the enhanced information-processing activity provoked by a confirming source can lead to as much influence, or more, as is triggered by the disconfirming source.

GENERAL DISCUSSION AND CONCLUSIONS

Our strongest conclusion is that among cognitive misers, attitudes are more dependent on message scrutiny when a knowledgeable source is of questionable honesty than when the honesty of the source is clear. This result was observed with a direct manipulation of source honesty (Experiments 1 and 2) and when source honesty had to be inferred from the source's expectancy-disconfirming behavior (Experiment 3). Although our research has provided support for our honesty hypothesis, is consistent with the two fundamental assumptions of contemporary persuasion models (ELM and HSM), and has suggested some caveats to an influential earlier persuasion theory (the AAP), several questions remain for additional research. These are addressed below.

First, it is important to note that although the sources in our research varied in trustworthiness, they were generally high in knowledge or expertise. That is, because nothing was done to cast doubt on the sources' knowledge, subjects likely believed that the sources were able to provide accurate information if only they were motivated to do so. If, however, we had cast doubt on the source's ability to be accurate by making the source low in expertise or knowledge, it is quite possible that subjects would have little motivation to think about the message regardless of source honesty. Future research should explicitly vary both a source's ability to be accurate (e.g., knowledge, expertise) and the source's motivation to be accurate (e.g., honesty).

Second, although the current research has clearly shown that low-NC subjects engage in less scrutiny of a knowledgeable source of high honesty than a source whose honesty is questionable, in none of our studies was the source perceived as extremely dishonest. In Experiments 1 and 2, using a rather extreme and direct manipulation of honesty, the dishonest source was still rated just barely on the dishonest side of an 11-point scale ($M = -4.75$), whereas the honest source was perceived as quite honest ($M = -.935$). Likewise, in Experiment 3, using a more subtle and indirect manipulation of trustworthiness, the less trustworthy source was actually rated above the midpoint on a similar scale. Had the present research provided source information that would lead subjects to view the communicator as extremely untrustworthy, it is possible that the miserly low-NC subjects would have forgone the effort of scrutinizing the message. Just as cognitive misers are likely to accept without much scrutiny information from a source that they trust to be highly accurate, it is also possible that they will reject without much scrutiny the information from a source that they can be quite confident is inaccurate.

Despite these questions, the current studies clearly indicate that low-NC individuals choose to expend the energy necessary to process in conditions where they cannot be certain of the truthfulness of the information presented by a knowledgeable communicator. When the source is perceived to be highly accurate, attitudes are formed without much message-relevant thinking.

One final issue that the current research addresses is the somewhat puzzling prediction from the AAP that expectancy disconfirmation leads to less message processing than expectancy confirmation. This prediction, validated in our third experiment, is somewhat surprising in light of evidence from several sources that expectancy disconfirmation is more typically associated with greater information-processing activity than confirmation is. For example, researchers studying causal attribution have found that targets that disconfirm expectations lead to more attributional inferences than those who confirm expectations (e.g., Enzle & Schopflocher, 1978; Pyszczynski & Greenberg, 1981; Wong & Weiner, 1981). This finding is not necessarily inconsistent with the AAP or the current research in that subjects who were confronted with the disconfirmed source may have engaged in more thinking to understand why this source disconfirmed their expectations than subjects who were faced with an expectancy-confirming source. However, once subjects effortfully judged (by attributional processing) that the source disconfirmed expectancies because he was an honest individual who was telling the
truth regardless of his previous and current self-interests, this inference allowed the more miserly of our subjects (i.e., those low in need for cognition) to fogo processing of the subsequent persuasive message.

In concert with the AAP, our perspective on expectancies indicates that it is not expectancy disconfirmation per se that reduces message processing but, rather, the inference of source honesty and message accuracy that produces this outcome. If this attributional result is prevented or does not occur, other processing outcomes are possible. For example, if expectancy disconfirmation does not lead to differences in perceived source honesty or accuracy but merely induces surprise—as when a presumably unknowledgeable source presents compelling arguments (e.g., Maheswaran & Chaiken, 1991) or when people learn that a majority of their peers endorse a presumably unpopular position (Baker & Petty, 1994)—expectancy disconfirmation may be associated with greater information-processing activity as a result of this surprise or curiosity. Although people are probably always surprised when their expectancies are violated, when this surprise also leads to an attribution that the source of the message is highly likely to be accurate, it can attenuate subsequent message-processing activity. When surprise is not accompanied by inferences of greater source trustworthiness, however, the surprise alone would be expected to enhance message processing. These speculations should be investigated in future research.

NOTES

1. Twelve source characteristics commonly examined in persuasion theories (e.g., Howland, Janis, & Kelley, 1953; Kelman, 1958) were included in the questionnaire. An additional five characterstics not typically studied (careful, motivated, persistent, optimistic, and happy) were included as filler items.

2. This main effect for characteristic was qualified by a significant Characteristic × Need for Cognition interaction, F(16, 672) = 2.5, p < .05. Examination of the results revealed that four characteristics (careful, unbiased, open-minded, and likable) were rated differentially as a function of need for cognition. As the characteristics found to be most likely to reflect an accurate message did not differ as a function of need for cognition, however, the significant interaction does not bear on the question of interest and is not discussed further.

3. It is interesting that "knowledge" was seen as more related to accuracy than "expertise" was, perhaps because people feel that not all so-called experts really have knowledge about the issue. That is, in everyday usage, expertise may be defined more in terms of credentials than in terms of actual knowledge.

4. In addition, the responses to all seven trait ratings were subjected to an iterated principal factor analysis. This analysis yielded one factor. Consequently, a general source perception factor was created by averaging each subject's responses to the seven ratings. This factor was analyzed by a 2 (Source Honesty) × 2 (Need for Cognition) ANOVA, which produced a main effect for source honesty, F(1, 101) = 136, p < .0001. Subjects rated the source more positively when he was high in honesty (M = 7.8) than when he was low in honesty (M = 4.7).

5. Although the present analyses report the results using a simple positive minus negative thought difference index, analyses using other indexes (e.g., a ratio index composed of the positive minus negative quantity divided by the total thoughts) produced equivalent results. Favorable responses, unfavorable responses, total number of cognitive responses, and the cognitive response index were subjected to a 2 × 2 ANOVA. No significant effects emerged.

6. A preliminary analysis was conducted to examine whether the three groups differed from one another. This analysis produced no significant results (p > .1), suggesting that collapsing the three groups into one comparison group is warranted.

7. As in Experiment 1, the responses to all seven trait ratings were averaged to create a general source perception factor. A 2 (Source Honesty) × 2 (Argument Quality) × 2 (Need for Cognition) ANOVA produced three significant findings: There were main effects for both the source honesty, F(1, 155) = 227.2, p < .0001, and the argument quality manipulations, F(1, 155) = 10.6, p < .005, and an Argument Quality × Need for Cognition interaction, F(1, 155) = 5.4, p < .05. Subjects rated the source more positively when he was high in honesty (M = 7.8) or used strong arguments (M = 6.6) than when he was low in honesty (M = 4.6) or used weak arguments (M = 6.0). Additionally, subjects high in need for cognition rated the communicator more positively when he used strong (M = 6.9) rather than weak (M = 5.7) arguments, whereas subjects low in need for cognition did not differ in their ratings as a function of argument quality (strong M = 6.2, weak M = 6.0).

8. A reviewer worried that the argument quality manipulation would not provide a test of our message scrutiny prediction if the manipulation were confounded with peripheral features that would allow an assessment of merit in the absence of argument processing. We think that this explanation is implausible for several reasons. First, the senior comprehensive exam arguments we used were explicitly pretested to avoid such confounds (Petty & Cacioppo, 1986), and no such confounds were identified by the reviewer. Second, these particular arguments have been used in a wide variety of studies, and it would be difficult to reinterpret these studies to fit the alternative explanation. Third, it is not clear why low-NC subjects who received a message from a honest source would not discover these confounds, but subjects in all other conditions would. Fourth, this explanation is not parsimonious when considered in light of Experiment 1, which produced a conceptually similar pattern without relying on an argument quality manipulation.

9. Eagly, Chaiken, and Wood (1981) framed their analysis of expectancy disconfirmation more in traditional attributional terms, and their analysis is somewhat more complex, than our description implies. However, our goal was not to provide an explicit test of their attributional notions but simply to use their general paradigm in support of our own goal of finding a manipulation where violation of expectancies would be associated with greater source honesty.

10. Measuring recall was presumably selected as the means of testing the processing hypothesis because the AAP initially adopted a message-learning/reception rather than a message-clarity interpretation of message processing (see Eagly et al., 1981, n. 6, p. 56).

11. In this study, Eagly et al. (1978) varied expectancies in three ways. For some subjects, expectancies were based on the source's prior experience. For others, expectancies were based on the position of the audience that the speaker addressed. For a final group, expectancies were based on both sources of information. We selected the third procedure in our research for two reasons. First, this procedure presumably provides the strongest manipulation of expectancy confirmation/disconfirmation. Second, the source perceptions of this group of subjects were similar to those in the audience disconfirmation ("reporting bias") conditions in that in both cases subjects whose expectancies were disconfirmed rated the source as more honest and sincere than subjects whose expectancies were confirmed. If we replicated this result, it would provide the conditions necessary to examine the competing explanations for Experiments 1 and 2. That is, we would have a case where perceived source honesty and a strong expectancy disconfirmation co-occur.

12. As the question of interest was how attribution of source honesty affected message processing, it was decided to include the manipulation checks at this point to ensure equivalence of high- and low-NC groups in the expectancies formed prior to message exposure.

13. Evidence for the expectancy manipulation also comes from the question presented after the key measures. Three-way ANOVAs per-
formed on questions asking to what extent the speaker and the group had traditionally supported the environmental/tourism and Farraday interests all yielded main effects for expectancy (all $p < .05$). Subjects in the expectancy-confirmed conditions all rated the speaker and the group to have traditionally supported the tourism/environmental position more than subjects in the disconfirmed-expectancy conditions.

14. As in the prior studies, the responses to all seven trait ratings were subjected to an iterated principal factor analysis, and again, this analysis yielded one factor. A 2 (Source) $\times$ 2 (Argument Quality) $\times$ 2 (Need for Cognition) ANOVA produced significant main effects for the expectancy, $F(1, 76) = 5.8$, $p < .05$, and argument quality, $F(1, 76) = 4.6$, $p < .05$, manipulations. Subjects perceived the source more positively when he disconfirmed expectations ($M = 8.0$) or used strong arguments ($M = 8.0$) than when he confirmed expectations ($M = 7.2$) or used weak arguments ($M = 7.1$).

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