Causal Inferences About Communicators and Their Effect on Opinion Change

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1 author:

Wendy Wood
University of Southern California
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Causal Inferences About Communicators and Their Effect on Opinion Change

Alice H. Eagly, Wendy Wood, and Shelly Chaiken
University of Massachusetts—Amherst

An attribution analysis of opinion change viewed message persuasiveness as a function of inferred communicator biases. Recipients infer a knowledge bias by believing that a communicator's knowledge about external reality is nonveridical and a reporting bias by believing that a communicator's willingness to convey an accurate version of external reality is compromised. In the experiment, knowledge-bias expectancies were established by portraying a communicator as having a strong commitment to values represented by the probusiness or pro-environment side of a controversial issue and reporting-bias expectancies by portraying his audience as having a strong commitment to one or the other side. In all conditions, the communicator advocated the pro-environment position. Therefore, recipients' expectancies were confirmed in the context of a pro-environment communicator and/or audience and disconfirmed in the context of a probusiness communicator and/or audience. Regardless of the type of bias that subjects expected (knowledge bias or reporting bias or both), they were more persuaded and rated the communicator as more unbiased when their expectancies were disconfirmed. Confirmation of expectancies based on reporting bias, but not knowledge bias, was associated with inferences of communicator insincerity and manipulativeness.

Attribution theory, especially Kelley's (1967, 1973) work, suggests that persons' explanations regarding why communicators advocate particular positions affect message persuasiveness. Following this logic, Eagly and Chaiken (1975) proposed that to the extent the position taken in a message can be explained in terms of either a particular characteristic of the communicator or a pressure in the communicator's situation, the message is regarded as providing a relatively nonveridical interpretation of external reality. Such a message should be less persuasive than one accounted for solely in terms of accurate and unbiased reporting.

To explicate the mechanisms by which causal explanations affect message persuasiveness, it is helpful to distinguish between two types of communicator bias inferred by message recipients: knowledge bias and reporting bias. Knowledge bias refers to a recipient's belief that a communicator's knowledge about external reality is nonveridical, and reporting bias refers to the belief that a communicator's willingness to convey an accurate version of external reality is compromised. Knowledge bias is based on factors either internal or external to the communicator. For example, on the basis of various communicator characteristics (e.g., background, personality traits), the observer may infer that the communicator holds certain attitudes or beliefs (e.g., that a black communicator has a positive attitude toward ethnic hiring quotas). Such inferences, in turn, may lead the observer to question the veridi-
cality of the communicator’s knowledge about external reality, since the communicator’s interpretation of information relevant to particular issues and events may be biased by these attitudes and beliefs. External pressures (e.g., a requirement that the communicator read certain materials) may also be judged to bias a communicator’s knowledge about external reality, because such pressures may lead observers to infer that a communicator’s sampling of information relevant to particular issues and events is nonrepresentative. A parallel analysis can be provided for reporting-bias inferences. A belief that the communicator is unwilling to convey veridical information may be based on the communicator’s attributes (e.g., extreme politeness) as well as on situational pressures (e.g., strong views held by individuals addressed by the communicator).

To understand the impact of these beliefs on message persuasiveness, it is useful to assume that recipients of messages generate expectancies about the positions communicators will advocate on issues. Thus, recipients may believe that some aspect of a communicator’s personal characteristics or current situation is likely to influence the communicator’s position on a particular issue through affecting his or her issue-relevant knowledge or willingness to report his or her own position. When a communicator confirms such an expectancy by actually taking the expected position, recipients explain the position in terms of the personal attribute or situational pressure on which they based the expectancy. These postmessage causal inferences, then, imply that communicators’ biased knowledge or their unwillingness to report their genuine positions did affect their stated positions. In general, regarding recipients as actively testing causal hypotheses about what communicators say suggests that knowledge bias and reporting bias have a dual role. They function both as (a) premessage expectancies about the kinds of effects that personal or situational factors will have on communicators’ advocated positions and (b) postmessage inferences concerning whether the expected effects occurred.

Confirmation of recipients’ knowledge- or reporting-bias expectancies lessens message persuasiveness. In cases in which a knowledge bias is confirmed, recipients believe that communicators’ positions are a product of their biased access to relevant information, and the perceived validity of their messages is thereby lowered. Yet recipients perceive such communicators as sincere, since their expressed viewpoints are assumed to correspond to their underlying attitudes and beliefs. The perceived validity of messages is also lowered in cases in which a reporting-bias expectancy is confirmed. However, the loss of validity stems from recipients’ doubts that communicators’ expressed positions correspond to their true attitudes and beliefs. Because of this perceived discontinuity between expressed opinions and opinions genuinely held, such communicators are regarded as insincere.

To the extent that the position taken by a communicator violates a knowledge- or reporting-bias expectancy, alternative causal explanations become more plausible. Alternative explanations are based on factors other than the personal attribute or situational factor that generated the expectancy. In some circumstances, the most plausible alternative may be that a different personal or situational factor influenced the communicator. Often, however, the most plausible rival hypothesis would be that a particularly compelling external reality caused the communicator to override the personal or situational pressure that the recipient initially regarded as the most likely influence on the communicator’s position. Since this pressure can then be discounted as a plausible cause, external reality is thought to be accurately represented by the message. The persuasiveness of the message is thereby enhanced.

This analysis is reminiscent of Kelley’s (1972) discounting and augmentation principles in its focus on the plausibility of possible causes. In our analysis, causes can stem either from the communicator’s personal characteristics or situation or from the external reality purportedly described by the message. As suggested by the discounting principle, a viable person- or situation-based cause lessens the plausibility of external reality as the cause. As suggested by the augmentation principle, when an expectation based on a personal or situational cause is disconfirmed, the cause
functions in an “inhibitory” sense, with the consequence that the strength of the “facilitating” external reality cause is enhanced.

There are several points that should be made in relation to the knowledge- and reporting-bias concepts. One point is that these concepts reflect the distinction between (a) attitudes and beliefs and (b) their behavioral expression. With knowledge bias, the communicator’s belief regarding a particular issue is suspect because it is based on selective perception or unrepresentative sampling of relevant information. With reporting bias, the communicator’s expression of his or her belief is in question. It should also be noted that the knowledge- versus reporting-bias distinction differs somewhat from the traditional distinction between expertise and trustworthiness (e.g., Hovland, Janis, & Kelley, 1953). The knowledge-bias concept does not correspond to the notion of expertise, because knowing that a communicator is expert (or inexpert) does not ordinarily lead observers to form an expectancy concerning what position the communicator will advocate. Expertise merely conveys that the communicator is well acquainted with the relevant external reality. Reporting bias, in contrast, corresponds fairly closely to the trustworthiness concept, because the defining quality of untrustworthiness is that a communicator does not convey the information he or she considers most valid. Finally, the knowledge- and reporting-bias concepts are interesting in relation to Kruglanski’s (1975) ends–means distinction between endogenous and exogenous attributions. A message confirming a knowledge-bias expectancy would be endogenously attributed, because the message, in merely expressing the communicator’s attitudes and beliefs, tends to represent an end in itself. In contrast, a message confirming a reporting-bias expectancy would be exogenously attributed, because opinions stated in the message are perceived as strategic in nature and therefore are believed to function as a means to an end.

Some previous studies seem clearly interpretable in terms of a knowledge bias decreasing message persuasiveness (e.g., Koeske & Crano, 1968) or in terms of a reporting bias lowering persuasiveness (e.g., Mills & Jellison, 1967). These findings, as well as some from other relevant studies (e.g., Cooper, Darley, & Henderson, 1974; Ewing, 1942; Goethals, 1976; McKillip, 1975; McMillan & Edwards, 1975; McPeek & Edwards, 1975; McPeek & Gross, 1975; Walster, Aronson, & Abrahams, 1966), are generally compatible with the present analysis. However, with few exceptions (Goethals, 1976; Walster, Aronson, & Abrahams, 1966), they are difficult to interpret in detail because information concerning recipients’ expectancies and causal inferences was not obtained.

A stronger demonstration of the effects of causal inferences on message persuasiveness was provided by Eagly and Chaiken (1975), who manipulated the attractiveness (i.e., likability) of communicators as well as the desirability of the positions they advocated. Subjects’ judgments of the positions they expected the communicators to advocate suggested that the communicators’ attractiveness provided an explanation of why they would take a desirable position and their unattractiveness of why they would take an undesirable position. Further, the prediction that messages disconfirming expectancies (i.e., attractive communicators advocating undesirable positions and unattractive communicators advocating desirable positions) would be relatively more persuasive than expected messages was supported by an appropriate interaction between communicator attractiveness and position desirability. However, it was also true that, in general, attractive communicators and desirable positions were more persuasive than unattractive communicators and undesirable positions, respectively. Because these latter findings were best interpreted in terms of mechanisms unrelated to causal inferences, the study did not provide an unambiguous demonstration of the attribution framework. A superior demonstration would manipulate cues that are unrelated to communicator characteristics such as likability, because these may affect persuasion via nonattributional mechanisms. In attempting to meet this goal, the present study established knowledge-bias expectancies by varying the communicator’s background and reporting-bias expectancies by varying the audience’s identity.
Method

Overview

In a 2 (expectancy confirmed vs. expectancy disconfirmed) X 3 (knowledge bias vs. reporting bias vs. knowledge and reporting bias) plus no-bias control group between-subjects design, persuasion subjects gave their opinions before and after reading a communication. Expectancy subjects (representing the same seven cells) judged the likelihood that the communicator would express the position advocated in the communication.

Subjects

A total of 335 male and female University of Massachusetts psychology students participated for course credit in sessions containing up to 15 subjects. Of these, 214 served as persuasion subjects and 113 as expectancy subjects.

Procedure

Arriving for an “opinion formation” experiment, subjects were informed that they would read and form an opinion about a (supposedly) genuine social issue. According to the experimenter, subjects’ participation entailed (a) reading background material and giving their preliminary opinions on an issue; (b) reading a transcript of a meeting held to discuss the issue; and (c) giving their final opinions and other responses.

Each subject then received one of seven versions (representing the various experimental conditions) of a booklet containing all experimental materials. After reiterating the oral instructions, these booklets presented background material concerning the (fictional) Farraday Aluminum Company’s waste disposal methods and their impact on the (fictional) Pacific Northwest city of Maniqualla. It was stated that the company had been dumping its industrial waste into the local river, which was becoming increasingly polluted. The material stressed both the company’s economic importance to the city and the importance of keeping the river clean for the area’s tourism industry and general ecological balance. Two opposing solutions to the issue were described: the probusiness position of continuing production and making gradual changes in waste disposal methods and the proenvironment position of stopping production immediately in order to institute radical changes. After reading this material, subjects gave their initial opinions on the issue.

Next, the booklets presented “background facts” regarding the meeting transcripts subjects were to read. This information described an election-year meeting at which mayoral candidate Jack Reynolds had presented his views on the Farraday issue. In all conditions, Reynolds (the communicator) was portrayed as a “well-liked,” “well-known” Maniqualla lawyer who was new to politics. The group hosting the meeting was described as composed of “influential citizens” whose support “is considered important in the election.” Further details regarding Reynolds and his audience varied depending on experimental conditions (see below).

Subsequently, subjects spent approximately 10 minutes reading the meeting transcript, which contained the persuasive message (see below). Subjects then completed a questionnaire on which they again indicated their opinions and gave other responses. Finally, subjects were debriefed and excused.

Expectancy subjects were treated identically, except that they were not exposed to the persuasive message. Instead, after reading the background facts about the meeting, they estimated the likelihood that the communicator would advocate the proenvironment position at the meeting and gave other responses.

Persuasive Message

The meeting transcript (approximately 1,200 words) began with a “chairperson” welcoming Reynolds and soliciting his opinion on the Farraday issue. In all conditions, Reynolds stated that he favored the proenvironment position of forcing the company to stop production immediately and make radical changes in its methods of waste disposal. In response to questions from the chairperson and other meeting participants, Reynolds supported this position with three arguments.

Table 1
Experimental Design

<table>
<thead>
<tr>
<th>Confirmation of expectancy</th>
<th>Type of expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Knowledge bias</td>
</tr>
<tr>
<td></td>
<td>Reporting bias</td>
</tr>
<tr>
<td></td>
<td>Knowledge bias and reporting bias</td>
</tr>
<tr>
<td>Confirmed</td>
<td>Proenvironment background</td>
</tr>
<tr>
<td></td>
<td>Proenvironment audience</td>
</tr>
<tr>
<td></td>
<td>Proenvironment background &amp; audience</td>
</tr>
<tr>
<td>Disconfirmed</td>
<td>Probusiness background</td>
</tr>
<tr>
<td></td>
<td>Probusiness audience</td>
</tr>
<tr>
<td></td>
<td>Probusiness background &amp; audience</td>
</tr>
</tbody>
</table>

Note. With persuasion subjects, cell ns ranged from 28 to 36, and with expectancy subjects, from 12 to 28.
Independent Variables

Confirmation of expectancy and type of expectancy were manipulated by varying the information subjects received regarding the communicator's background and his audience's specific identity (see Table 1).

To establish the expectancy that only a knowledge bias would operate, the "background facts" about the meeting characterized Reynolds' audience as a "cross section of citizens representing a wide array of opinions" but described his past legal career as concerned with either environmentalist-tourism interests or business-labor interests. Past support for proenvironment interests was conveyed by the following statements:

For example, a number of years ago, he volunteered his services to a group of Maniqualla citizens who wished to sue the city over the close location of the city dump to residential areas and the dump's policy of open burning. His work was considered instrumental in causing the city to relocate the dump, as well as to stop open burning altogether and to adopt safer methods of disposing of rubbish. More recently, a group of Maniqualla environmentalists and businessmen dependent on tourism had Mr. Reynolds represent them in their effort to prevent the sale of over 1,000 acres of densely forested land to a development corporation planning to deforest and rezone the land for commercial purposes.

The description conveying past support for probusiness interests was identical in format but instead of citing Reynolds' efforts on behalf of the environment cited previous efforts on behalf of Farraday Company workers and officials.

To establish the expectancy that only a reporting bias would operate, the "background facts" provided no details regarding Reynolds' past legal career but described the audience as concerned with either environmentalist-tourism interests or business-labor interests. The description of the probusiness audience identified the group as "citizens for industrial growth" and included the following statements:

The group is composed of Farraday Company officials and workers as well as various Maniqualla businessmen whose businesses depend upon the stability of the Farraday Company. The group is concerned with maintaining the uninterrupted operation of the Farraday Company and obviously holds strong views about the Farraday issue.

The description of the proenvironment audience was identical in format, but the group was identified as "citizens for the environment" and its members were said to include various businessmen dependent on tourism, public health officials, and environmentalists concerned with the protection of the river.

To establish the expectancy that both a knowledge and a reporting bias would operate, the "background facts" specified Reynolds' past career orientation as well as the specific identity of his audience. Background and audience both represented either proenvironment interests or probusiness interests. The no-bias control condition omitted mention of both Reynolds' past career and the audience's specific identity.

Communicator background and/or audience identity were restated at the beginning and at the end of the transcript by reference to Reynolds' past interests and/or the audience's identity.

Measuring Instruments

Expectancies. On a 15-point scale ranging from "Very likely" to "Very unlikely," expectancy subjects rated the likelihood that the communicator would advocate the proenvironment position of "Stopping production immediately and making radical changes." These subjects also responded to all measures described below, with the exception of message comprehension and final opinion.

Manipulation checks. Subjects indicated, on two 15-point scales, the extent to which the communicator had traditionally supported environmentalist-tourism interests and Farraday Company interests, respectively. On the opinion scale described below, subjects estimated the opinion held by the audience prior to their hearing the communicator's views.

Opinions. Subjects indicated their opinions on the Farraday issue by marking a 15-point scale anchored by "Stop production immediately and make radical changes" and "Continue production and make gradual changes." The midpoint was labeled "Uncertain."

Causal inferences. On 15-point scales anchored by "Extremely important" and "Extremely unimportant," subjects judged the influence of three factors on the communicator's advocated position: (a) his background and past position on related issues, (b) the opinions held by the audience, and (c) the facts regarding the company's waste disposal methods and their impact on the city's environment and economy.

Perception of communicator. Subjects rated the communicator on 15-point bipolar evaluative scales. Positive poles were honest, sincere, nonopportunistic, nonmanipulative, noncompilant, open-minded, unbiased, consistent, and likeable.

Message comprehension. Subjects were asked to write down the overall position taken by the communicator as well as each argument he had used to support his position. Answers were scored for correctness by two independent raters (r = .74; 76% agreement) who were blind to subjects' experimental conditions. Also, using the opinion scale described above, subjects indicated the overall position taken by the communicator.

Other measures. On 15-point scales, subjects judged the communicator's "true, private opinion" on the issue, his freedom of choice to attend the meeting, his freedom to express his true opinions at the meeting, and the relative importance of environmental issues in comparison to other social issues. Subjects also wrote down their interpretations of the experiment. Two raters coded these responses for dis-
Table 2

Mean Manipulation Check Responses, Opinion Change, and Causal Inferences as a Function of Confirmation of Expectancy and Type of Expectancy

<table>
<thead>
<tr>
<th>Variable</th>
<th>Confirmed</th>
<th>Disconfirmed</th>
<th>No-bias control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source's past support for environment</td>
<td>13.94</td>
<td>8.10</td>
<td>14.18</td>
</tr>
<tr>
<td>Source's past support for Farraday Co.</td>
<td>5.42</td>
<td>7.63</td>
<td>5.39</td>
</tr>
<tr>
<td>Likelihood of pro-environment position</td>
<td>10.00</td>
<td>8.75</td>
<td>8.93</td>
</tr>
<tr>
<td>Opinion change</td>
<td>2.87</td>
<td>2.60</td>
<td>2.71</td>
</tr>
<tr>
<td>Importance of source's background</td>
<td>12.52</td>
<td>8.03</td>
<td>11.07</td>
</tr>
<tr>
<td>Importance of audience's opinion</td>
<td>9.90</td>
<td>12.10</td>
<td>10.82</td>
</tr>
<tr>
<td>Importance of facts</td>
<td>12.19</td>
<td>11.10</td>
<td>10.43</td>
</tr>
</tbody>
</table>

Note. Higher numbers indicate stronger support for environmental interests, stronger support for Farraday Company interests, audience opinions toward the probusiness end of the scale, higher likelihood, greater opinion change, and greater importance of causal factors. All data are from the persuasion subjects, with the exception of the likelihood ratings, which are from the expectancy subjects.

Results

The hypotheses were explored by a Confirmation of Expectancy (confirmed vs. disconfirmed) × Type of Expectancy (knowledge bias vs. reporting bias vs. knowledge bias and reporting bias) analysis of variance and appropriate contrasts. All analyses were calculated with the no-bias control condition included in the error term. Since subjects' sex had no effect on opinions and few effects elsewhere, all reported analyses ignored this variable.

Manipulation Checks

As indicated by the means shown in Table 2, persuasion subjects' ratings of the source's past support for each side of the issue established that communicator background was correctly perceived: Past support for environmental but not Farraday Company interests was inferred for the proenvironment source, whereas support for Farraday but not environmental interests was inferred for the probusiness source. Thus, planned comparisons showed that the two conditions confirming the knowledge-bias expectancy (i.e., taken as a pair, the confirmed knowledge-bias cell and the confirmed knowledge- plus reporting-bias cell) and the two disconfirming the expectancy differed significantly from each other and from the no-bias condition (all ps < .01), whereas the one condition confirming only the reporting-bias expectancy and the one disconfirming it did not differ from each other or from the no-bias condition.1

1 On this and other dependent variables, when planned comparisons across expectancy-confirmation conditions are given separately for conditions involving knowledge bias and for those involving reporting bias, the Confirmation × Type interaction proved significant, unless otherwise noted. For brevity, only the planned comparisons, which are more informative in terms of the hypotheses, are given in the text.
As shown in Table 2, the audience's position was also correctly perceived: The audience was rated closer to the proenvironment end of the scale when comprised of "citizens for the environment" rather than "citizens for industrial growth." Thus, planned comparisons showed that the two conditions confirming the reporting-bias expectancy and the two disconfirming it differed significantly from each other and from the no-bias group ($p < .001$), whereas the one condition confirming only the knowledge-bias expectancy and the one disconfirming it did not differ from each other or from the no-bias group.

Expectancy subjects' ratings of the source's and the audience's views yielded very similar findings.

### Adequacy of Experimental Design

The design required that the proenvironment message be expected when communicator background and/or audience identity was proenvironment and unexpected when communicator background and/or audience identity was probusiness. Analysis of variance on expectancy subjects' likelihood ratings indicated that this requirement was met: The position advocated in the message (proenvironment) was judged more likely to be advocated when expectancies were confirmed rather than disconfirmed, $F(1, 107) = 36.87$, $p < .001$, and both confirmed and disconfirmed conditions differed significantly from the no-bias condition ($p < .05$; see Table 2 for means). It should also be noted that the proenvironment and probusiness positions were approximately equidistant from persuasion subjects' initial positions, which averaged 7.25 (slightly to the proenvironment side of the scale midpoint of 8).

The design also required that, prior to message delivery, communicator evaluation be unaffected by the communicator's background or the audience's identity. This requirement was also met: Analyses of expectancy subjects' ratings of the communicator on the nine bipolar adjective scales yielded only two significant effects, neither of which indicated that the proenvironment versus probusiness nature of the communicator's background or audience's identity induced rating differences. A main effect for type of expectancy was found on expectancy subjects' ratings of the communicator's sincerity ($p < .01$) and lack of bias ($p < .05$). On sincerity, subjects in reporting-bias conditions (regardless of the audience's proenvironment or probusiness orientation) rated the communicator as less sincere than did subjects in either knowledge-bias conditions or knowledge- plus reporting-bias conditions. On lack of bias, the communicator was rated most biased in knowledge- plus reporting-bias conditions, next most biased in knowledge-bias conditions, and least biased in reporting-bias conditions.

### Causal Inferences

Ratings of the importance of the source's background in influencing his position established that his identity had the intended effect on perceived causation. As shown in Table 2, background was rated considerably more important in the two conditions confirming the knowledge-bias expectancy than in the two conditions disconfirming it ($p < .001$), and these two confirmed and two disconfirmed conditions each differed significantly from the no-bias condition ($p < .02$). The one condition confirming only the reporting-bias expectancy did not differ from the one disconfirming it, although the disconfirmed cell did differ marginally from the no-bias condition ($p < .10$).

Opinion change scores were formed by subtracting each subject's premessage position from his or her postmessage position. Persuasion subjects changed their opinions more when the message disconfirmed rather than confirmed their expectancies, $F(1, 207) = 6.75$, $p < .02$ (see Table 2). Neither the type of expectancy main effect nor the Confirmation $\times$ Type interaction approached significance. Planned comparisons indicated that the conditions in which expectancies were disconfirmed differed marginally from the no-bias condition ($p < .10$), whereas the conditions with confirmed expectancies did not. An analysis of subjects' premessage positions yielded no initial differences between conditions.

A main effect for type of expectancy was found on expectancy subjects' ratings of the communicator's sincerity ($p < .01$) and lack of bias ($p < .05$). On sincerity, subjects in reporting-bias conditions (regardless of the audience's proenvironment or probusiness orientation) rated the communicator as less sincere than did subjects in either knowledge-bias conditions or knowledge- plus reporting-bias conditions. On lack of bias, the communicator was rated most biased in knowledge- plus reporting-bias conditions, next most biased in knowledge-bias conditions, and least biased in reporting-bias conditions.

Analysis of covariance of subjects' postmessage positions, using premessage positions as a covariate, yielded findings nearly identical to the analysis of variance on change scores.

Background was judged less important in the no-bias condition than in the reporting-bias conditions and, in fact, even slightly less important than in the disconfirmed knowledge-bias condition (see Table 2).
Ratings of the importance of the audience's opinions in influencing the source's position established that the audience's identity also had the intended effect: As shown in Table 2, audience opinion was judged considerably more important in the two conditions confirming the reporting-bias expectancy than in the two conditions disconfirming it ($p < .001$), and these two confirmed and two disconfirmed conditions each differed significantly from the no-bias condition ($ps < .01$). While the one condition confirming only the knowledge-bias expectancy did not differ from the one disconfirming it, the disconfirmed cell did differ from the no-bias condition ($p < .05$).

Ratings of the importance of the facts in influencing the communicator's position showed much weaker effects of the experimental variables. In the overall analysis, only the Confirmation of Expectancy × Type of Expectancy interaction approached significance ($p < .06$), and a simple effects test showed that disconfirmation (vs. confirmation) of expectancies led to a stronger attribution to facts only when both knowledge and reporting biases operated ($p < .05$).

### Perception of the Communicator

A factor analysis (varimax rotation) of the source ratings yielded three rotated factors. The factors, which accounted for 36.6%, 14.4%, and 12.1% of the variance, were labeled "Unbiased" (open-minded, unbiased), "Nonmanipulative" (nonmanipulative, noncompliant, nonopportunistic), and "Sincere" (honest, sincere), respectively. Factor scores were computed for each subject and then treated by analysis of variance. The likeable and consistent scales, which failed to load highly on any of these factors, were analyzed separately and yielded only very weak effects or effects of no interpretive importance.

The source was judged more biased when he confirmed rather than disconfirmed subjects' expectancies ($p < .001$), and both confirmed and disconfirmed conditions differed marginally from the no-bias condition ($ps < .10$). The nonmanipulative and sincere factors yielded quite a different pattern: The communicator was considered less manipulative and more sincere when he disconfirmed rather than confirmed the expectancy based on the audience's identity. Thus, on both variables,

<table>
<thead>
<tr>
<th>Variable</th>
<th>Confirmed</th>
<th>Disconfirmed</th>
<th>No-bias control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unbiased factor</td>
<td>-0.39</td>
<td>0.38</td>
<td>0.14</td>
</tr>
<tr>
<td>Nonmanipulative factor</td>
<td>0.37</td>
<td>-0.24</td>
<td>-0.36</td>
</tr>
<tr>
<td>Sincere factor</td>
<td>0.01</td>
<td>-0.22</td>
<td>-0.27</td>
</tr>
<tr>
<td>Opinion expressed in message</td>
<td>1.16</td>
<td>2.19</td>
<td>1.44</td>
</tr>
<tr>
<td>Source's true opinion</td>
<td>2.64</td>
<td>5.31</td>
<td>4.72</td>
</tr>
<tr>
<td>Freedom to express opinion</td>
<td>9.45</td>
<td>7.91</td>
<td>8.19</td>
</tr>
</tbody>
</table>

**Note.** Higher numbers indicate perception of the source as more unbiased, nonmanipulative, and sincere; opinion in message and true opinion toward probusiness end of scale; greater freedom to express opinion. All data are from the persuasion subjects.
the two cells confirming the reporting-bias expectancy and the two disconfirming it differed significantly from each other ($p s < .001$), with the disconfirmed (but not confirmed) cells differing from the no-bias condition ($p < .001$). The one cell confirming the knowledge-bias expectancy and the one disconfirming it tended to differ in a direction opposite to that shown with reporting bias, but the trend was not significant. Cell means for the communicator ratings and for the remaining dependent variables are given in Table 3.

**Supplementary Measures**

**Message comprehension.** All subjects correctly recalled the position advocated by the communicator. In addition, subjects' recall of the arguments in the message was quite high ($M = 2.15$), and analyses revealed no significant effects on this measure. Although ratings of the opinion expressed in the message were close to the proenvironment end of the scale in all conditions, in the two cells in which the knowledge-bias expectancy was disconfirmed, ratings were somewhat less proenvironment, and only these cells differed from the no-bias condition ($p s < .10$ by Dunnett's test).

**Other dependent variables.** The communicator's true opinion was rated most proenvironment when his position confirmed the expectancy based on his background or, in the absence of information about background, it disconfirmed the expectancy based on the audience's identity. Thus, planned comparisons indicated that the two conditions disconfirming the knowledge bias and the two confirming it differed significantly from each other, and the two confirmed conditions differed from the no-bias group ($p s < .01$), whereas the one condition confirming only a reporting-bias expectancy and the one disconfirming it differed from each other, but in the opposite direction ($p < .005$).

Ratings of the communicator's freedom to express his true opinion were most strongly affected by the expectancy-confirmation variable when reporting bias operated alone. Thus, perceived freedom was greater when the communicator's position disconfirmed rather than confirmed the expectancy based on the audience's identity ($p < .001$), whereas expectancy confirmation did not have a significant effect when knowledge bias operated alone or in conjunction with reporting bias. Ratings of the source's choice in attending the meeting and of the importance of the issue yielded no significant effects.

**Correlational Analyses**

Correlations between opinion change and measures of possible mediators of persuasion were also examined. Correlations between causal inference ratings and opinion change tended to be low in magnitude, no doubt in part because of the restriction of range within cells. Correlations between opinion change and the unbiased factor were also low (average within-cell $r = .23$) but were moderately consistent across experimental conditions. Introducing the unbiased factor as a covariate in the analysis on opinion change markedly reduced the magnitude of the expectancy-confirmation main effect, $F(1, 206) < 1.0$, from that obtained in the analysis of variance, $F(1, 207) = 6.75, p < .02$.

**Discussion**

When the communicator's position disconfirmed subjects' expectancies based on the communicator's background, the identity of his audience, or both factors, he was significantly more persuasive than when expectancies were confirmed. In interpreting this finding, it should be noted that communicators and audiences were constructed to be parallel in all aspects except their business or environmental orientation. Attesting to the adequacy of the design in this respect, expectancy subjects' ratings showed that prior to message delivery, communicators were evaluated equivalently regardless of their background or the audience's specific identity. Thus, the opinion-change findings cannot be explained in terms of nonattributional mechanisms such as a tendency to agree with a likeable communicator.

The study distinguished between two types of expectancy held by message recipients: Knowledge-bias expectancy was established by portraying the communicator as having a strong commitment in his past career to the
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values represented by one or the other side of the controversial issue discussed in the message, while reporting-bias expectancy was established by portraying the audience as having a strong commitment to one or the other side. Consistent with the assumption that these expectancies allow perceivers to infer a communicator's position on relevant issues, expectancy subjects judged the communicator likely to advocate a position consistent with his background and with the audience's opinions.

Causal Inferences

In explaining the communicator's position, subjects took into account whether the message confirmed or disconfirmed their expectancies. Thus, as shown by ratings of the importance of the communicator's background and audience's opinions in influencing the communicator's views, these views were attributed more strongly to the communicator's background when the knowledge-bias expectancy was confirmed rather than disconfirmed and attributed more strongly to the audience's opinions when the reporting-bias expectancy was confirmed rather than disconfirmed.

The next link in our chain of reasoning was that explanation of the communicator's position either in terms of his background or his audience leads to a perception of the message as relatively invalid, while with expectancy disconfirmation, the message appears more valid, or, in effect, it is explained in terms of an accurate rendering of external reality. Ratings of the importance of "facts" in influencing the communicator's position did not fully substantiate this argument, perhaps because of the difficulty in wording the facts question to reflect the external reality idea. However, support was found on the unbiased factor obtained from the communicator ratings. Thus, when the communicator disconfirmed a knowledge- or reporting-bias expectancy (or both), he was judged less biased than when he confirmed them. This main effect of the expectancy-confirmation variable closely paralleled the opinion change finding, and covarying opinion change on the unbiased factor greatly reduced the magnitude of the expectancy-confirmation main effect.

Inferences Concerning Communicator's Characteristics and True Opinion

We had reasoned that the lowering of message persuasiveness due to confirmation of a reporting-bias but not a knowledge-bias expectancy would be accompanied by an inference of communicator insincerity. In support of this reasoning, in the reporting-bias conditions, the communicator was regarded as considerably less sincere as well as more manipulative and less free to express his opinions when he advocated a position that confirmed rather than disconfirmed subjects' expectancies. In contrast, in the knowledge-bias conditions, the communicator gained in perceived sincerity by taking the expected position.

Related to these sincerity findings are subjects' perceptions of the communicator's true opinion, since an insincere communicator's advocated position presumably does not reflect his true opinions. The reporting-bias conditions yielded true opinion findings consistent with the sincerity ratings and congruent with attribution theory predictions (Jones & Davis, 1965) and research (e.g., Ajzen, 1971; Himmelfarb & Anderson, 1975; Lay, Burron, & Jackson, 1973), suggesting that the less expected an act, given (exogenous) pressures influencing the actor, the stronger is the perceiver's inference that the actor's disposition (i.e., true opinion) corresponds to his act. Thus, the communicator's true opinion was regarded as more proenvironment when he addressed a probusiness rather than a proenvironment audience. This effect is also consistent with Newton and Czerlinsky's (1974) research, which suggests that perceivers infer true opinions by taking both context and expressed position into account. Thus, as their findings and our own expectancy data demonstrated, perceivers believe that communicators typically shift their expressed positions toward extreme audiences. When a position is

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5 The relevance of our knowledge-bias manipulation to Kelley's (1967, 1973) distinctiveness principle might be noted. Since the manipulation portrayed the communicator's position on a number of related issues, his position on the critical issue was more distinctive (and therefore more valid) when it was inconsistent with his opinions on the related issues.
consistent with the audience's position, perceivers correct for the communicator's presumed audience-oriented shift by adjusting his or her true opinion back toward the opposite end of the scale. No correction is warranted when a message is strongly opposed to the audience's views.

In contrast, the inference of an extreme proenvironment true opinion when the knowledge bias was confirmed illustrates an inference based on the source's background and his expressed position. When the expressed position was unexpected, as it was for a source with a probusiness background, perceivers gave weight to both background and expressed opinion by correcting the source's true opinion toward the probusiness end of the scale. When the source's background was consistent with his proenvironment stance, perceivers regarded his position as close to the proenvironment end of the scale.

In summary, then, subjects' causal inferences and perceptions of the communicator documented the cognitive mediation specified by our framework and demonstrated that two distinct communicator biases can underlie the tendency for messages disconfirming expectancies to be especially persuasive. Taken alone, the opinion data, yielding only a main effect of the expectancy-confirmation variable, do not permit discrimination between the consequences of these two qualitatively different perceived biases.

Other Issues

The design of the study allowed an examination of the relative potency of the knowledge- and reporting-bias mechanisms and their cumulative impact on persuasion. These issues should be considered, however, in terms of subjects' premessage expectancies, since persuasiveness was regarded as a product of expectancy disconfirmation. Since the only effect on the likelihood ratings was an expectancy-confirmation main effect, the amount of disconfirmation occurring with an unexpected position varied little, regardless of whether a knowledge or reporting bias, or both, was operative. From this perspective, the persuasion data should also yield only an expectancy-confirmation main effect. This finding was in fact obtained, although the confirmation effect proved nonsignificantly stronger with reporting than knowledge bias. Ratings on the unbiased factor also failed to suggest any differential impact of type of expectancy or any cumulative effect when the two perceived biases operated jointly. It is interesting, however, that ratings on other dependent variables showed a mixed pattern when the two communicator biases were combined, with ratings on some variables (e.g., communicator's true opinion) yielding the same result as in the knowledge-bias condition, and other ratings (e.g., sincere, nonmanipulative) yielding the same result as in the reporting-bias condition.

The inclusion of a no-bias control group allowed us to examine whether differences between the persuasiveness of messages confirming and those disconfirming expectancies are accounted for primarily in terms of confirmation lowering persuasiveness or disconfirmation enhancing persuasiveness. The differences between the experimental and control means were not large enough to allow any strong conclusions regarding this issue, although, consistent with Kelley's (1971) augmentation principle, the difference involving the disconfirming message was somewhat larger and approached significance, whereas the difference involving the confirming message did not.

Finally, some attention must be given to the generalizability of the present findings. The experiment was designed to provide detailed documentation of the attributional processes underlying opinion change effects and to demonstrate that these effects could be mediated by qualitatively different biases. While the study was successful in meeting these goals, it did not incorporate multiple renditions of messages or positions or multiple versions of the communicator and audience variables. A lengthy period of pretesting issues, positions, and communicators was necessary before the several requirements of our design could be satisfied for only one rendition, and pretesting of even these communicators and audiences in relation to another position (i.e., probusiness) on the same issue yielded a pattern of pretest expectancies inappropri-
ate for implementing the design. Nevertheless, we believed it worthwhile to provide one very clear demonstration of the effects of knowledge- and reporting-bias expectancies on opinion change. The clarity of this demonstration stems from the fact that our various control groups and dependent measures provided detailed documentation of the attributional mechanisms underlying persuasion and allowed us to rule out alternative explanations for our findings.

References


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