

INDIVIDUAL VERSUS GROUP INTEREST VIOLATION: SURPRISE AS A DETERMINANT OF ARGUMENT SCRUTINY AND PERSUASION

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Previous studies based on an attributional analysis of persuasion have suggested that a source who takes an unexpected position is perceived as more trustworthy and accurate than one who argues for an expected position. As a result, message processing is decreased when expectancies are violated compared to when they are confirmed. The current research suggests that these findings are limited to cases in which the unexpected position violates individual self-interest. When a source's unexpected position violates individual self-interest, attributions of trustworthiness are enhanced, but when the unexpected position violates group interest, this does not occur (Experiment 1). Instead, a violation of group interest induces surprise (Experiment 1) and produces enhanced rather than reduced message processing (Experiment 2).

In persuasion contexts (whether attending a political speech, reading an advertisement, or buying a used car), people often have expectations about what the persuasion attempt will be like. For example, people might expect that the source of the message will take a certain position

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(e.g., that a Republican legislator will speak in favor of tax cuts), or that the source will provide cogent arguments in favor of his or her position (e.g., that a car salesperson will describe many positive attributes of a new car). Contemporary research suggests that the confirmation or disconfirmation of these expectancies can have an effect on whether people are persuaded by the message and on the process by which this persuasion occurs.

EXPECTANCY DISCONFIRMATION IN PERSUASION SETTINGS

DISCONFIRMATION OF SOURCE-POSITION EXPECTATIONS

Although individuals can hold several different types of expectancies in persuasion settings, perhaps the most studied expectancy is that which people have about the position the source of the message will take. Research on source-position expectancies has found that people expect sources to take positions in their own self-interest, and when this does not occur (i.e., when a source disconfirms the expected position), greater attributions of source trustworthiness and message validity result. According to the Attributional Analysis of Persuasion (AAP, Eagly & Chaiken, 1975; Eagly, Chaiken, & Wood, 1981) and later extensions (Priester & Petty, 1995), if a source takes the expected position, it is unclear whether the source espouses the message because it is veridical or because the source will gain something from the advocacy. Therefore, with expectancy confirmation, the trustworthiness of the source and the veracity of the message are in doubt.

Conversely, when the source disconfirms source-position expectancies by arguing against self-interest, recipients are likely to augment their perceptions of the source's trustworthiness and of the message's validity because they infer the source must have overcome all the potentially biasing factors upon which the expectancy was based. For example, a politician would be expected to take a pro-environmental stance in a speech to a group of environmentalists, because it is in the politician's self-interest to do so (i.e., obtaining the votes of the group). If the politician does not do this, he or she is assumed to be speaking the truth. The merits of the message must have overcome the source's desire to act in his or her own personal best interest. Research has consistently found that a source who violates recipients' expectancies about the message position is perceived as more trustworthy and the message is seen as more valid than when expectancies are confirmed (e.g., Eagly, Wood, & Chaiken, 1978; Priester & Petty, 1995; Walster, Aronson, & Abrahams, 1966).

Because a source who violates expectancies is seen as trustworthy, and the message as veridical, there is little need to engage in extensive scru-

tiny of the message. However, when the source confirms expectancies, and the validity of the message is in doubt, recipients need to assess the message carefully prior to acceptance. Specifically, according to the AAP research and more recent dual route persuasion models (i.e., the elaboration likelihood model, Petty & Cacioppo, 1986; the heuristic/systematic model, Chaiken, Liberman, & Eagly, 1989) people are often motivated to hold correct attitudes. If they cannot be assured of accuracy, such as when the source is seen as untrustworthy, greater message scrutiny should occur as the recipient attempts "to remove questions concerning message validity" (Eagly et al., 1981, p. 56).

Priester and Petty (1995) found explicit support for one interesting implication of these propositions. That is, disconfirmation of expectancies about the position a source will take should be associated with less message processing than confirmation of expectancies. In one study, the quality of the arguments in the message was varied along with expectancies about a position a source would take. Consistent with the AAP, Priester and Petty (1995, Study 3) found that when a source disconfirmed the expected message position, perceptions of source trustworthiness were enhanced and message processing (i.e., attitude differentiation between strong and weak messages; Petty, Wells, & Brock, 1976) was reduced compared to conditions in which the source took the expected position. This processing effect was most apparent for individuals who were not intrinsically motivated to think—those recipients who were low in need for cognition (NC, Cacioppo & Petty, 1982). High NC participants showed message processing regardless of expectancy condition. Thus, the AAP and available research suggest that reduced message processing will result after a source disconfirms one's expectations about the position he or she will take compared to when a source confirms one's expectations.

DISCONFIRMATION LEADING TO SURPRISE AND INCREASED PROCESSING

Although the conceptual rationale and the empirical evidence for reduced message processing resulting from disconfirmation of source-position expectancies are clear, this effect is somewhat surprising given a wide variety of research in persuasion and other domains suggesting that violation of expectancies often leads to surprise and *enhanced* information processing compared to confirmation of expectancies. For example, Maheswaran and Chaiken (1991) found greater message processing when the quality of the message contrasted with the expected message quality. Similarly, Baker and Petty (1994) found evidence that people expect the majority of others to agree with their position (and the minority of others to oppose it). When this expectation was violated, recipients

were surprised and engaged in greater message scrutiny. In addition, Smith and Petty (1995) showed that people who received a positively framed message when they expected to receive a negatively framed message (or vice versa) showed increased message processing compared to conditions in which people received the message they expected. All of these studies have shown that an unexpected message can lead to greater message processing, presumably due to increased surprise after disconfirmation (Petty, 1997).

Outside of the persuasion domain, other research on expectancy effects has also revealed that expectancy disconfirmation can produce increased information processing. For example, research on causal attribution (e.g., Pyszczynski & Greenberg, 1981; Wong & Weiner, 1981) and on impression formation (e.g., Fiske & Neuberg, 1990; Hastie, 1984; Srull & Wyer, 1989) has found that perceivers engage in increased effortful processing after their expectations are disconfirmed (see Olson, Roese, & Zanna, 1996; Stangor & McMillan, 1992, for reviews). Thus, various persuasion and non-persuasion findings of expectancy disconfirmation leading to increased effortful processing stand in stark contrast to the AAP hypothesis and findings of *reduced* message processing when a source-position expectancy is disconfirmed.

NECESSARY CONDITION FOR REDUCED PROCESSING: ENHANCED TRUSTWORTHINESS

Why has the prior literature on source-position expectancies shown that confirmation of expectancies produces greater information processing, whereas other research on expectancies demonstrated that disconfirmation of expectancies produces greater information processing? One possibility is that in the paradigms used to test source-position expectancies—from the earliest studies (e.g., Walster et al., 1966), to the most recent (e.g., Priester & Petty, 1995), and all in between (e.g., Eagly et al., 1981)—the disconfirming source has *always* violated self-interest in the position taken. Thus, disconfirmation of expectancies about the source's position is always confounded with violation of the source's self-interest. For example, when a politician speaks in favor of stricter environmental protection laws to factory owners, the politician is acting against his or her own vested interest in obtaining votes as well as disconfirming expectancies. When violation of self-interest occurs, there is a ready interpretation for the violation: The source is particularly trustworthy. This analysis suggests that reduced information processing is not invariably the result of a violation of source-position expectancy. What would occur if a source took a position that violated

expectations but was not readily attributable to enhanced trustworthiness?¹

Consider a source who takes an unexpected position in violation of his or her *group's* interest rather than his or her individual interest. This position should be surprising, since people generally expect others to be loyal to groups to which they belong (see Platow, O'Connell, Shave, & Hanning, 1995; Platow, Hoar, Reid, Harley, & Morrison, 1997; Wenzel & Mummendey, 1996). However, unlike violation of individual self-interest, it is not clear that a person who violates his or her group's interests would be seen as trustworthy. Although there is some aspect of selflessness in going against one's group's interests, there is also some disloyalty involved. As Kramer, Brewer, and Hanna (1996) argued, shared group identities help define bounded communities of mutual trust. Thus, whereas violation of individual self-interest is admired and produces trust, a person who violates group interest can be seen as disloyal and untrustworthy because looking out for one's group's best interest is one aspect of group loyalty (Brewer & Silver, 2000). So, although a source who violates the group's interests can be viewed positively (e.g., as unbiased or trustworthy because he or she is going against group and self-interest), he or she can also be viewed negatively as a bad group member or as disloyal. Thus, perceivers may have two conflicting reactions on the same dimension (i.e., trustworthiness) toward the source who violates his or her own group's interest. Similarly, unlike confirmation of individual self-interest, it is not clear that a person who confirms his or her group's interests would be seen as untrustworthy. Although a source who confirms the group's interests can be viewed negatively (e.g., as biased because he or she is acting to enhance group and self-interest), he or she can also be viewed positively as a good group member or loyal. This greater variability in interpreting both group interest conditions should lead to an attenuation or elimination of differences in perceived trustworthiness between group interest confirmation and disconfirmation. In sum, violations of source-position expectancies based on group interest should produce surprise without any accompanying augmentation of the source's trustworthiness. Because of this, violation of group interest might lead to enhanced information processing activity.

The differential consequences of violating group versus individual self-interest on source attributions, information processing, or persuasion

1. In the persuasion studies finding that disconfirmation of expectancies leads to enhanced processing, there is no individual source who violates expectancies. For example, in Baker and Petty (1994), the participants are simply told that a majority or minority of people favors a particular position. This general information can violate expectancies or not, but no individual source violates expectancies.

have not been investigated previously. The present research aims to address these issues, because the group interest case may provide an initial boundary condition to the previously identified and consistent effects of source-position expectancy disconfirmation. Based upon: (1) the clear differences in perceived selfishness and trustworthiness across the individual interest confirmation versus disconfirmation conditions and (2) the attributional ambiguity under group interest disconfirmation and confirmation conditions (see Snyder & Wicklund, 1981), we predicted that source perception differences in perceived trustworthiness between confirmation and disconfirmation of expectancies would be larger when expectancies were based on individual interest versus group interest. That is, although past research has shown that disconfirmation of *individual* self-interest expectancies leads to enhanced perceptions of source trustworthiness relative to confirmation (e.g., Priester & Petty, 1995; Walster et al., 1966), we expected that this difference would be attenuated or absent with disconfirmation of *group* interest expectancies relative to confirmation. Nevertheless, both types of expectancy disconfirmation should be viewed as surprising relative to confirmation.

Our first study was designed to evaluate the differences in perceptions of source trustworthiness, surprise, and attributional ambiguity across the individual and group expectancy bases. This experiment sought to replicate past findings of attributional effects of self-interest (dis)confirmation, and to extend the analysis to violations of group interest. In a second study, we investigated the effect of violations of source-position expectancies based on group interest on message processing and persuasion. Specifically, we tested whether group interest expectancy disconfirmation leads to increased or decreased message processing relative to confirmation.

EXPERIMENT ONE

OVERVIEW

In this study, students read a brief scenario in which expectancies based upon a source's self-interest or a source's group's interest were established and then either confirmed or disconfirmed by the position taken in a brief message summary. To evaluate participants' source perceptions based solely upon message position, the message summary only stated the position taken by the source without any supporting arguments. After reading the short summary, participants responded to items measuring their perceptions of the source, their surprise about the position taken, and their attributions for the position taken.

The scenario opening paragraph stated that a specific person (or a specific group) should receive a university scholarship. Expectancies were confirmed when the source's position either advocated that the source

himself ("Bill Johnston") or a group to which the source belonged ("minority students") should receive the scholarship. Expectancies were disconfirmed when the essay advocated that either another person ("David Matthews") or a group to which the writer did not belong ("children of alumni") should receive the scholarship.

These materials were designed to allow for a conceptual replication of AAP work in the self-interest conditions and still allow a feasible variation for the group interest conditions. The expectancy manipulation was modeled after the AAP work (e.g., Eagly et al., 1978) in that situational constraints led to expectations about the position the source would take. We chose the groups "minority students" and "children of alumni" because: (1) both seemed to be reasonable groups to receive a scholarship; and (2) these groups were both "ascribed" (Ashmore & Del Boca, 1979) to group members (the group members would either always belong to the group or would never belong to the group). Thus, it was clear in the group interest conditions that the position taken in the essay either benefited or potentially harmed the source's own group.

METHOD

PARTICIPANTS

Sixty-six White students at Ohio State University (OSU) who were not children of OSU alumni participated in partial fulfillment of requirements in an introductory psychology course. The fact that participants who were from racial minorities or children of alumni were not included ensures that the participants were non-invested parties.

DESIGN

Participants were assigned to the cells of a 2 (Expectancy basis: individual interest, group interest) \times 2 (Expectancy: confirmation, disconfirmation) between-participants factorial design. In addition, a measure of NC (Cacioppo, Petty, & Kao, 1984) was taken as it has moderated prior work on expectancy violations (e.g., Priester & Petty, 1995; Smith & Petty, 1995).

PROCEDURE

Sessions were conducted in groups of two to seven. Upon arrival, participants were given experimental booklets that contained the following information. The first page of the booklet described the study as part of an "essay writing-evaluation project." Although specific instructions

differed across expectancy basis conditions (see below), general instructions informed participants that they would be given and would be evaluating the introductory paragraph of a sample essay "taken from a pool of letters sent to the Office of Student Affairs at the University of Iowa." The letters were described as pertaining to a planned university scholarship program that could only be offered to a limited number of students. Essays were described as having been solicited to help decide who should receive the scholarship. In addition, participants were informed that they would be given some demographic information about the writer of the essay. The participants' task was to form an impression about the writer and to evaluate the writing in the essay.

The remaining pages of the experimental booklet contained, in order: (1) a demographic sheet about the writer, (2) the essay introductory paragraph, (3) the dependent variables and manipulation checks, (4) the NC scale, and (5) a participant demographic sheet. After all participants in a group had completed the booklets, they were debriefed and excused.

INDEPENDENT VARIABLES

Basis of Expectancy. The basis of the expectancy (individual or group interest) was manipulated by varying both the initial instructions and the essay introductory paragraph. In addition to the general instructions described above, the first page of the booklet stated either that "only one student will receive the scholarship" (individual interest condition) or that "only members of one group will receive the scholarship" (group interest condition). The essay paragraphs were also either described as solicited to help decide "who should receive this scholarship" or "which group should receive these scholarships."

Expectancy Confirmation/Disconfirmation. Expectancies about the position to be taken were created by manipulating the instructions on the first page of the booklet and the source demographic sheet on the second page. The expectancy confirmation or disconfirmation was manipulated through the content of the essay introductory paragraph on the third page of the booklet.

In the group interest conditions, the initial instructions stated that essays were solicited to help decide which one group should receive the scholarship. In addition, the demographic sheet on the writer provided information about the writer's race and his parents' educational background (among other information such as the writer's name, age, sex, university, year in school, major, hometown, and hobbies). This information was held constant across all conditions. The writer, "Bill Johnston" was described as Black and his parents were not alumni from his university.

The expectancy-confirming introductory paragraph for the group interest expectancy was:

All students who are of racial minority status should qualify for the university scholarship program that would enable them to attend school without having to pay tuition. Although this means that the other equally-deserving groups being considered (including children of alumni) will have to pay their own tuition, I believe that minority students are the most worthy group based upon the following reasons.

Thus, in the group interest confirmation condition, the source, a Black male, took the expected position in favor of his group. The expectancy-disconfirming introductory paragraph for the group interest expectancy was identical to the confirming paragraph except that another group ("children of alumni") was switched with "minority students" so that the paragraph stated that "although this means that the other equally-deserving groups being considered (including minority students) will have to pay their own tuition, I believe that children of alumni..." Thus, in the group interest disconfirmation condition, the Black source took the unexpected position in favor of another group.

In the individual interest conditions, the expectancy was established in the initial instructions that only one student would receive the scholarship. Thus, the student submitting an essay would be expected to write that he should receive the scholarship. To strengthen this expectancy, the essay writer was also described as one of the scholarship program finalists. The writer demographic information was identical to the group interest information.

The expectancy-confirming introductory paragraph for the individual interest expectancy was:

I should qualify for the university scholarship program that would enable me to attend school without having to pay tuition. Although this means that the other equally-deserving finalists will have to pay their own tuition, I believe that I am most deserving based upon the following reasons.

Thus, in this condition, the source took the expected position in favor of himself. The expectancy-disconfirming introductory paragraph for the individual interest expectancy was identical to the confirming paragraph except that another person's name ("David Matthews") was substituted for "I" in the appropriate places. Thus, in this condition, the

source violated individual self-interest and took an unexpected position in favor of someone else.

Need for Cognition Scale. After responding to the other measures, participants completed the NC scale (Cacioppo et al., 1984). High and low NC participants were determined by a median split on the scale with the median equaling 63.5 (scores ranged from 26 to 86).

DEPENDENT VARIABLES

Surprise Ratings. After participants read the essay introductory paragraph, they were asked to answer all questions without looking back at previous pages. On the page immediately following the essay introductory paragraph, participants were asked several general questions to measure their "overall reaction to the writer's choice of essay topic." As a check on whether expectancy violation was surprising, participants responded on a 7-point scale ranging from -3 = "not at all surprised" to +3 = "very surprised" regarding how surprised they were about the writer's choice of essay topic.

Source Trustworthiness Measures. After evaluating the essay topic, participants were asked for their opinions about the essay writer because "evaluations of the essay introductory paragraph might have been influenced by your attitude about the writer." Participants were asked to rate the writer on several positive/negative trait semantic differential scales. These 7-point scales ranged from -3 to +3. Source trustworthiness was measured with three scales (untrustworthy/trustworthy; insincere/sincere; dishonest/honest), which were presented with other positive/negative source traits serving as filler items (e.g., cold/warm; close-minded/open-minded; unlikeable/likeable).

Open-Ended Attributional Processing. On the next page, participants were asked to write down the reasons why they thought that the student chose to write his essay. The number of trait attributions listed was counted by a coder blind to conditions. More traits were expected to be listed for individual versus group interest conditions. In addition, to assess the specific trait attributions of selfish and selfless, the number of direct mentions of source "selfishness" and "selflessness" were also tallied.

Manipulation Checks and Participant Demographic Sheet. To ensure that participants were aware of the source information that created the expectancy, a recognition test of the source demographic information was given after the other measures were completed. The two important questions concerned the source's race and the source's parents' educa-

tional background.² The final page of the experimental booklet was a participant demographic sheet so that we could establish which participants were minority students and which were children of alumni.

RESULTS

All dependent variables were submitted to a 2 (Expectancy basis: individual interest, group interest) \times 2 (Expectancy: confirmation, disconfirmation) \times 2 (Need for cognition: high, low) between-participants analysis of variance.

SOURCE TRUSTWORTHINESS

The three scales designed to measure trustworthiness were highly intercorrelated (Cronbach's $\alpha = .74$) and thus were averaged to form a trustworthiness index. This index was submitted to the three-way ANOVA. The only significant effect obtained was the predicted interaction between Basis and Expectancy, $F(1,58) = 7.55, p < .01$. To interpret this interaction, simple effects tests were conducted separately for individual and group interest expectancies. For individual interest conditions, a simple main effect for expectancy was found, $F(1,32) = 4.78, p < .04$. Replicating previous research (e.g., Priester & Petty, 1995), when the source disconfirmed individual interest, he was rated as more trustworthy ($M = 1.86$) than when he confirmed individual interest ($M = 0.83$). However for group interest conditions, no difference between expectancy disconfirmation ($M = 0.87$) and confirmation ($M = 1.36$) conditions was found, $F(1,30) = 1.58, p = .22$.

SURPRISE RATINGS

Two main effects were obtained on the surprise scale. First, as expected, participants were more surprised in the expectancy disconfirmation ($M = 1.84$) than in the confirmation conditions ($M = -0.39$), $F(1,58) = 30.47, p < .0001$. The other significant result was a main effect for expectancy basis. Regardless of whether expectancies were confirmed or disconfirmed, participants found the individual interest messages more surprising ($M = 1.31$) than the group interest messages, ($M = 0.15$), $F(1,58) = 8.25, p < .01$.

2. On the source memory manipulation check, two participants erred on the alumni status of the writer's parents and no one erred on the writer's race. When these participants are removed from analyses, results are the same as those reported.

The Basis \times Expectancy interaction was not significant, $F(1,58) = 2.15, p = .15$.³ Thus, as predicted, it appears that participants were more surprised after expectancy disconfirmation than confirmation, regardless of whether the expectancy was based upon the source's individual or group interest.

OPEN-ENDED ATTRIBUTIONAL PROCESSING

Analyses of the number of trait attributions participants listed in their open-ended responses revealed a main effect for Expectancy Basis, $F(1,57) = 11.88, p < .01$. Specifically, participants explained the target's actions using more trait terms in the individual interest conditions ($M = 1.14$ traits per participant) than in the group interest conditions ($M = .32$), suggesting that a clear attribution was easier to make in the individual than group interest conditions. One specific trait thought to differ between individual self-interest and group interest was perceived selfishness/selflessness. Thus, the percentages of participants who referred to selfishness or selflessness were compared across expectancy basis: 30.3% of participants in the individual conditions mentioned selfishness/selflessness (participants mentioned either selfishness or selflessness, not both) whereas 0% of participants in the group conditions mentioned this trait, $\chi^2(1) = 11.46, p < .001$. To evaluate the numbers of references to selfishness versus selflessness across expectancy confirmation and disconfirmation, separate analyses were conducted for the individual conditions only (since there were no mentions of these traits in the group conditions). For mentions of selflessness, 38.9% of disconfirmation (i.e., low self-interest) condition participants mentioned this trait (or synonyms) whereas 0% of participants in the confirmation (i.e., high self-interest) condition mentioned selflessness, $\chi^2(1) = 7.40, p < .007$. For mentions of selfishness (or synonyms), 20% of participants in the confirmation condition mentioned this trait whereas 0% of participants in the disconfirmation condition mentioned it, $\chi^2(1) = 3.96, p < .05$. It appears that participants were more likely to attribute the source's choice of message position to a

3. We also conducted separate simple effects tests for the individual and group interest conditions to determine if the simple main effect for expectancy held. These analyses confirmed that effects for expectancy occurred in both the individual interest, $F(1,32) = 8.38, p < .006$ (Means: Confirmed = 0.49, Disconfirmed = 2.13) and group interest, $F(1,30) = 27.01, p < .0001$ (Means: Confirmed = -1.26, Disconfirmed = 1.56) conditions.

personality trait (especially to selfishness/selflessness) when the source's position was relevant to self-interest rather than relevant to his group's interest.

We also expected that the differential perceptions of source selfishness in the individual conditions would correspond to the greater perceived source trustworthiness under expectancy disconfirmation than confirmation. To evaluate this prediction, the correlations between references to selfishness (and selflessness) and the source trustworthiness ratings were computed. As predicted, in the individual conditions, trustworthiness and mentions of selfishness were significantly negatively correlated, $r = -.42, p < .02$. In addition, trustworthiness and mentions of selflessness were significantly positively correlated, $r = .36, p < .05$.

DISCUSSION

In this study, we found different effects of expectancy disconfirmation on source perceptions for expectancies based on individual versus group interest. As predicted, trustworthiness attributions varied only when the expectancy was based upon the source's individual self-interest. Thus, our individual interest expectancy conditions were consistent with prior theory and research (e.g., Eagly et al., 1978; Priester & Petty, 1995) in that the source was perceived as more trustworthy when he went against his own self-interest than when he wrote in favor of his self-interest. More importantly, we found a condition under which source-position expectancy confirmation and disconfirmation did *not* make a difference for trustworthiness attributions — when the expectancy was based upon group membership and group interest. Results from the open-ended responses suggest that this attenuation may have been due to the greater attributional ambiguity when group interest rather than individual interest was concerned. Thus, Experiment 1 outlines a boundary condition for the effects of disconfirmation of source-position expectancy on perceptions of trustworthiness, suggesting that taking an unexpected position does not invariably lead to perceptions of enhanced source trustworthiness.

In addition, consistent with previous expectancy disconfirmation work (e.g., Baker & Petty, 1994), participants were more surprised when expectancies were disconfirmed than confirmed. More importantly, this investigation extends this work by suggesting that individuals are more surprised when an individual source takes a position that disconfirms

rather than confirms expectancies, regardless of whether the position violates either individual or group interest.⁴

EXPERIMENT TWO

Experiment 2 was designed to investigate the implications of the findings of Experiment 1 regarding the effects of disconfirmation of group interest for message processing. Specifically, we tested the prediction that disconfirmation of a source-position expectancy that does not augment perceived source trustworthiness (i.e., violation of group interest) will lead to increased rather than reduced message scrutiny. Past research has already shown that reduced message scrutiny results when individual self-interest expectancy disconfirmation leads to enhanced perceptions of source trustworthiness and message validity (Eagly et al., 1978; Priester & Petty, 1995; Wood & Eagly, 1981). Because a source who violates group interest is not seen as more trustworthy but is more surprising, we anticipate that group interest expectancy disconfirmation

4. Before conducting Study 2, one potential concern with the operationalization of group interest expectancies in Study 1 was evaluated. Specifically, our group interest confirmation condition had scholarships for “minority students” as its topic, whereas the topic in the disconfirmation condition was about “children of alumni.” The groups “minority students” and “children of alumni” are not equivalent, and might show different effects for reasons unrelated to expectancy violation. For example, it might be more surprising for any source to advocate scholarships for alumni than for minorities. To remove this potential confound and use both topics in the expectancy confirming and disconfirming cases, we conducted a study to replicate conceptually our group interest findings with both groups. Source demographics were varied such that the source was either Black and not a child of alumni, or White and a child of alumni. A second minor change was made in the essay topic — rather than a scholarship program, the program was described as a “university service program” that would allow participants free tuition. The message either advocated that this program should be for children of alumni or for minority students (see Experiment 2 for details).

Forty-eight individuals participated in this 2 (Source: Black student of non alumni parents, White student of alumni parents) × 2 (Expectancy: confirmation, disconfirmation) between-participants design. In this study, expectancy confirmation/disconfirmation was always on a group interest basis. Participants received the demographic information and introductory essay paragraph and then completed measures of surprise and source trustworthiness. In this revised version, our manipulation of expectancy confirmation/disconfirmation was effective in producing surprise as participants were significantly more surprised after disconfirmation ($M = 0.67$) than after confirmation ($M = -2.04$), $F(1,44) = 34.38, p < .0001$. Furthermore, replicating the group interest conditions in Study 1, no significant effects were found on the source trustworthiness index. As expected, participants did not view the disconfirming source as any more trustworthy ($M = 1.42$) than the confirming source ($M = 1.38$). Neither of these effects was qualified by the source. That is, Black students favoring alumni, and White alumni favoring minority students were both more surprising than favoring one’s own group.

will lead to enhanced information processing compared to group interest expectancy confirmation, as has been found in other work on expectancies (e.g., Baker & Petty, 1994; Maheswaran & Chaiken, 1991; Smith & Petty, 1995). To assess the extent to which the persuasive message was scrutinized, participants were presented with messages containing either all strong or all weak arguments. In general, the attitudes of participants who are thinking about the message carefully should be more affected by message quality (i.e., they should be more persuaded by strong than weak arguments) compared to participants who are not thinking about the message carefully (see Petty, Wells, & Brock, 1976; Petty & Cacioppo, 1986).

METHOD

PARTICIPANTS

Two hundred eighty-eight White students who were not children of OSU alumni participated in this study in partial completion of introductory psychology course requirements. As in Experiment 1, minority participants and children of alumni were not included in the analyses.

DESIGN

Participants were assigned to the cells of a 2 (Source: Black, non-alumnus child; White, alumnus child) \times 2 (Group interest expectancy: confirmed, disconfirmed) \times 2 (Argument quality: strong, weak) between-participants factorial design (see footnote 4). As in Experiment 1, a measure of NC was taken.

PROCEDURE

Experimental sessions were conducted with groups ranging in size from two to eight. Upon arrival, participants were given experimental booklets that contained the following information. The first page of the booklet described the study as part of a "journalism writing-evaluation project" in which participants would be given a newspaper article written by a student from another Big Ten university. They were also told that they would be given some demographic information about the author of the article. The participants' task was to form an impression of the writer and to evaluate the writing in the article itself. Participants were then given a summary of the message topic — that a tuition break program should be instituted at the University of Iowa. The baseline level of message scrutiny for this personally irrelevant message was expected to

be relatively low (see Petty & Cacioppo, 1979, 1990). The remaining pages of the booklet contained (1) a demographic sheet about the writer, (2) the article (containing the persuasive message), (3) the dependent variables and manipulation checks, (4) the NC scale, and (5) the participant demographic sheet. After all participants in a group had completed the booklets, they were debriefed and excused.

INDEPENDENT VARIABLES

Source. On the second page of the booklet, participants were given a demographic sheet about the writer. This page contained information about the writer's age, sex, university, year in school, major, hometown, hobby, race and parents' educational background (in this order). Information about the source remained the same in all conditions except for race and parents' educational background. The manipulation of source was accomplished by varying jointly the race and the parents' university, which was either Black/University of Minnesota (i.e., minority, parents were not alumni of Iowa) or White/University of Iowa (i.e., non-minority, parents were alumni of Iowa). This manipulation provided an internal replication of group interest disconfirmation effects on persuasion (see footnote 4 for a pretest of the effects of this manipulation on source perceptions and surprise).

Group Interest Expectancy Confirmation/Disconfirmation. The expectancy manipulation was accomplished by the combination of the message source and message topic. Participants were provided with a brief summary of the message topic before they read the full persuasive message to create the expectancy confirmation or disconfirmation in advance of the persuasion attempt. Participants were informed that the article they would be evaluating was about one of the following topics: "Students who are children of alumni (i.e., their parents graduated from the same university that the student attends) should be allowed to participate in a two year university service program that would allow them to attend school without having to pay tuition." Or: "Students who are of racial minority status should be allowed to participate in a two year university service program that would allow them to attend school without having to pay tuition."

Thus, expectancy confirmation resulted when the source wrote in favor of his own group participating in this program, and expectancy disconfirmation resulted when the source wrote in favor of a group to which he did not belong.

Argument Quality. On the next pages of the booklet, participants received the persuasive message. The message contained either the strong

or weak arguments from Baker and Petty (1994, Study 2). The arguments in the message were pretested such that the strong arguments elicited primarily positive thoughts and the weak arguments elicited primarily negative thoughts when pretest participants were instructed to think about them (see Baker & Petty, 1994, Study 2).

The persuasive message supported implementing a program in which certain students (either minority students or children of alumni) would be eligible for tuition breaks in exchange for participating in a university service program. The message arguments focused on the benefits of the university service program for the university and for the students involved in the program. For example, one strong argument stressed that with the money saved through students performing various university services, "a greater portion of the university budget can be invested in monetary incentives for research and teaching" and "funding will be available to recruit additional outstanding professors, researchers, and Nobel prize winners." However, a parallel weak argument suggested that the additional monies available can be "spent on materials such as paint for buildings, new machinery for mowing and landscaping, and plantings, shrubbery, flowers, and trees" in order to make the university "a scenic and beautiful place to spend the college days."

Need for Cognition Scale. Participants completed the need for cognition scale (Cacioppo et al., 1984) after responding to the other measures. High and low need for cognition participants were determined by a median split on the scale with the median equaling 63.5 (scores ranged from 31 to 85).

DEPENDENT VARIABLES

Argument Quality Manipulation Checks. Immediately after participants read the persuasive message, they were asked to answer all questions without looking back at previous pages. On the page immediately following the essay, participants were asked to rate "how well was the article written?" and "how persuasive were the arguments?" on 9-point scales ranging from 1 = "not at all" to 9 = "extremely." These questions were provided along with several filler questions (e.g., how clear was the writing style) designed to fit the cover story about evaluating the article. The first two questions served as manipulation checks for argument quality.

Attitude Measures. On the next page, participants read that "because your evaluations of the article might have been influenced by your attitude toward the article topic, we would like to ask your opinions about the topic." Participants then completed two general attitude questions and a five-item semantic differential scale. The general questions were

"In general, what is your opinion about the university service program?" and "How would you feel about the implementation of the university service program here at Ohio State University?" These items were completed on 9-point scales ranging from 1 = "strongly oppose" to 9 = "strongly favor." On the five-item semantic differential scale, participants were asked, "rate how you feel about the university service program." Each semantic differential was completed on a 9-point scale. The scale anchors were: unfavorable/favorable, bad/good, foolish/wise, harmful/beneficial and unfair/fair.

Source Memory Manipulation Check and Participant Demographics. After completing all other dependent measures, participants completed the source memory multiple choice questions and the participant demographic sheet (as described in study 1).⁵

RESULTS

All dependent variables were submitted to a 2 (Group interest expectancy: confirmation vs. disconfirmation) \times 2 (Source: Black, non-alumnus vs. White, alumnus) \times 2 (Argument quality: strong vs. weak) \times 2 (NC: high vs. low) between-participants analysis of variance.

*Argument Quality Manipulation Checks.*⁶ To determine if our manipulation of strong and weak arguments was effective, participants' responses to the two argument quality questions were averaged and submitted to the four-way ANOVA. The expected main effect for argument quality was obtained, $F(1,271) = 12.97, p < .001$. Messages containing strong arguments were rated more positively ($M = 5.89$) than were weak messages ($M = 5.12$).⁷

Attitude Measure. The α coefficient for the attitude scales was .95 so the scales were averaged to form an overall index. This index was subjected

5. On the source memory manipulation check, one participant made an error on the writer's race and eleven participants erred on the alumni status of the writer's parents. When these participants are removed from analyses, results are the same as those reported.

6. One participant did not complete this measure, and thus was not included in the analysis.

7. A main effect of expectancy was also obtained, $F(1, 271) = 6.80, p < .01$, suggesting that participants in the disconfirmation conditions rated arguments more positively ($M = 5.79$) than did participants in the confirmation conditions ($M = 5.23$). In addition, a need for cognition \times expectancy interaction emerged, $F(1,271) = 4.00, p < .05$, suggesting that whereas high NC individuals rated the quality of the arguments higher when the expectancy was disconfirmed ($M = 5.90$) than confirmed ($M = 4.91$), low NC individuals' perceptions of argument quality were not affected by expectancy ($M_{\text{disconfirmed}} = 5.68, M_{\text{confirmed}} = 5.55$).

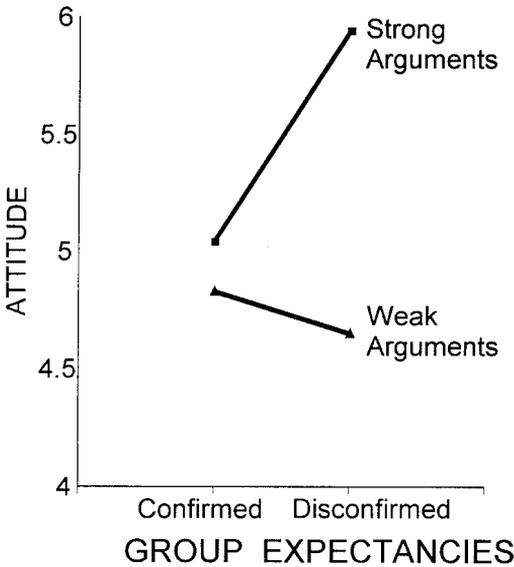


FIGURE 1. Interaction on attitudes between group interest expectancy status and argument quality.

to the four-way between-participants ANOVA. First, a main effect for argument quality was obtained, $F(1,272) = 11.04, p < .01$, indicating that participants receiving strong arguments were more persuaded ($M = 5.49$) than were those who received weak arguments ($M = 4.74$). Of greater interest, the predicted expectancy \times argument quality interaction, $F(1,272) = 5.79, p < .02$, qualified this main effect (see Figure 1). When expectancies were disconfirmed, argument quality had a greater impact on attitudes than when expectancies were confirmed. More specifically, under expectancy confirmation conditions, argument quality had no impact on attitudes, $F(1,139) = .42, ns$. However, under expectancy disconfirmation conditions, a simple main effect for argument quality emerged, $F(1,145) = 18.54, p < .0001$.

One additional effect that emerged, consistent with past research (Priester & Petty, 1995; Smith & Petty, 1995), was a three-way interaction among expectancy, argument quality, and need for cognition, $F(1,272) = 3.86, p < .05$ (see Table 2). Separate analyses for high and low need for cognition participants indicated that high NC participants (i.e., those individuals who enjoy thinking) showed only a main effect for argument quality, $F(1,134) = 7.84, p < .01$ (the expectancy \times argument quality interaction, $F < 1, ns$), suggesting that they engaged in effortful processing of the message regardless of whether expectancies were confirmed or

TABLE 1. Mean Attitude Ratings as a Function of Group-Interest Expectancy Status and Argument Quality (Experiment 2)

Argument Quality	—Attitudes—	
	Confirmed	Disconfirmed
Strong	5.04 (65) <i>SD</i> = 1.87	5.94 (79) <i>SD</i> = 1.70
Weak	4.83 (76) <i>SD</i> = 1.97	4.65 (68) <i>SD</i> = 2.09

Note. *N*s indicated in parentheses.

disconfirmed. Low NC participants showed a main effect for argument quality, $F(1,146) = 4.19, p < .05$, along with an expectancy \times argument quality interaction, $F(1,146) = 10.38, p < .01$. This interaction indicated that low NC participants did not differentiate between strong and weak arguments when their expectancies were confirmed, but they did differentiate when their expectancies were disconfirmed.⁸

GENERAL DISCUSSION

The present research expands our understanding of the consequences of sources taking unexpected positions. Based on prior research and theory, one would have predicted that when a source takes an unexpected position, greater attributions of trustworthiness and reduced information processing activity should result compared to when the source takes an expected position. The current studies suggest that this result is

8. A source \times expectancy interaction, $F(1,272) = 5.28, p < .03$, was also obtained. A main effect for expectancy emerged in the Black, non-alumnus source condition, $F(1,136) = 8.40, p < .01$. Thus, participants had more positive attitudes toward the message when a minority source wrote in favor of children of alumni receiving the tuition breaks ($M = 5.62$) than when the minority source wrote in favor of breaks for minorities ($M = 4.75$). Attitudes in the White, alumnus source conditions did not differ between expectancy disconfirming ($M = 4.96$) and confirming conditions ($M = 5.13$), $F < 1$. This unanticipated result could have occurred because Caucasian participants paid more attention to the position taken by the Black than the White source, resulting in their being more affected by those positions (Petty, Fleming, & White, 1999; White & Harkens, 1994). Future research could include conditions where a Black source is an alumnus and a White source is a non-alumnus to tease apart race from alumni effects. Importantly, our results indicated that participants engaged in greater scrutiny of the arguments whichever source (black or white, alumnus or non-alumnus) violated expectancies. That is, the significant two-way Expectancy \times Argument quality interaction was not qualified by source, nor was the significant three-way Expectancy \times Argument quality \times Need for cognition interaction qualified by source.

TABLE 2. Mean Attitude Ratings as a Function of Group-Interest Expectancy Status, Argument Quality, and Participants' Need for Cognition Level (Experiment 2)

Argument Quality	—Attitudes—			
	High Need for Cognition		Low Need for Cognition	
	Confirmed	Disconfirmed	Confirmed	Disconfirmed
Strong	5.08 (33)	5.80 (37)	5.00 (32)	6.07 (42)
	<i>SD</i> = 2.04	<i>SD</i> = 1.56	<i>SD</i> = 1.70	<i>SD</i> = 1.82
Weak	4.32 (37)	4.84 (31)	5.35 (39)	4.45 (37)
	<i>SD</i> = 2.02	<i>SD</i> = 2.00	<i>SD</i> = 1.81	<i>SD</i> = 2.17

Note. *N*s indicated in parentheses.

likely primarily when the position taken violates individual self-interest. When the position is unexpected because it violates a group's interest, the results are quite different. That is, in Experiment 1, we showed that although both types of expectancy violation induce surprise, only the violation of self-interest is associated with increased perceptions of trustworthiness. Violations of group interest do not engender the same enhancements of trustworthiness. Instead, violations of group interest appear to produce some attributional ambiguity. The surprise accompanied by unclear attributions as to the cause of a behavior would be expected to lead to increased rather than decreased information processing. This is the effect we observed in Experiment 2.

INTEGRATION: INFORMATION PROCESSING CONSEQUENCES OF EXPECTANCY DISCONFIRMATION

The current framework seems potentially useful for reconciling seemingly inconsistent findings in the persuasion literature regarding the information processing consequences of expectancy disconfirmation. To summarize briefly, if disconfirmation of expectancies leads to increased perceptions of source trustworthiness or enhanced perceptions of message validity, then message processing should decrease over confirmation conditions (Chaiken et al., 1989; Petty & Cacioppo, 1986). On the other hand, if disconfirmation of expectancies leads only to surprise compared to confirmation conditions, message processing should increase. In past research, disconfirmations of expectancies about message quality (Maheswaran & Chaiken, 1991), message framing (Smith & Petty, 1995), and whether a majority or minority of others hold a pro- or counterattitudinal position (Baker & Petty, 1994) did not violate self-interest and thus should not lead to perceptions of source trustworthiness or message validity. In each case, recipients are simply left surprised by

the disconfirmation of expectancies and they engage in greater information processing activity, presumably to resolve the violation of expectations and re-establish their understanding of the topic or source at hand (Olson et al., 1996).

It is somewhat ironic that the earliest work on expectancies in persuasion (Eagly & Chaiken, 1975; Eagly et al., 1978; Walster et al., 1966; Wood & Eagly, 1981) focused on the one type of expectation (i.e., source-position expectancy based on personal self-interest) that produced an apparent *exception* to the subsequently emergent general rule that disconfirmation of expectancies enhances processing. The current research is the first to show that violations of expectancies about the position a source will take can lead to enhanced information processing. This was accomplished by shifting the expectation from one based on self-interest alone to group interest.

In examining this framework, it is important to keep the theoretical variables in mind that underlie our integration. That is, when a source violates expectancies, a number of inferences are possible. An expectancy disconfirmation can enhance perceptions of source trustworthiness or message validity (and thus decrease message processing), and it can also affect surprise (and thus increase message processing), but when surprise alone occurs, enhanced information processing occurs. When both occur, it appears that perceptions of message validity reduce message processing despite the increased surprise.

For self- and group interest expectancy violations to occur, at least two factors seem necessary: a perception that some self- or group interest is involved, and an expectation that individuals will act in accordance with that interest. A perception of self- or group interest may not always be present. For example, an aggregate of individuals, which is not entitative enough (they do not form a coherent whole), may not be perceived as having a common group interest in the first place (Campbell, 1958; Hamilton & Sherman, 1996; Hamilton, Sherman, & Lickel, 1998). In such cases, there would be no group interest to violate. Even when self- or group interest is perceived, however, violations of them may not always cause expectancy disconfirmations. For example, in some cultures, self-interest violation may be expected rather than unexpected, and thus such violations would not be expected to lead to increased perceptions of trustworthiness, because people are more likely to make dispositional attributions for behaviors that are unexpected (Jones & Davis, 1965). Likewise, for some groups or issues, group interest violation may also be expected, such as when the group is clearly undeserving, and in those instances violation of group interest would not be expected to lead to surprise.

Future work could examine these possibilities, as well as explore several remaining issues. For example, although we compared individual

versus group interest violations on perceptions of trustworthiness and surprise together in Study 1, we did not directly compare the effects of these two types of expectancy violations on information processing and persuasion. This was because the effects of individual self-interest violation on information processing and persuasion seemed clear from prior research. Nevertheless, it would be prudent to examine the effects of individual- versus group interest confirmation versus disconfirmation on information processing in the same study. In addition, our hypothesis that surprise and attributional ambiguity mediate the increased processing resulting from group interest violations should be directly tested by assessing the mediators in the same study as the outcome variables.

The current research and framework suggest that it is important to consider that expectancies in persuasion contexts can be developed upon multiple bases, such as on prior knowledge of a person's past behaviors, a person's group membership, or human behavior in general. As shown in our experiments, the basis of the expectancy can make an important difference in the outcome of disconfirmation on source perception and on subsequent information processing and persuasion.

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