

Ambivalent Attitudes and Persuasion

Abstract

Prior research demonstrates that people who feel ambivalent toward a target object engage in systematic processing and rely on argument strength for judgments. The first experiment extends extant research and proposes that people would engage in systematic processing when feeling ambivalent toward an information source as well. The results supported these predictions in an advertising context. Product argument strength in ads predicted brand attitudes for those feeling ambivalent toward the endorser, whereas it was existing attitudes toward the endorser that explained brand attitudes among univalent participants. The second experiment proposes that identification would moderate the persuasion process for those with ambivalent attitudes. When people are made to feel ambivalent toward an issue or source, their identification with that issue or source should influence their response to persuasive information. The attitudes of those strongly identified with the issue or source will improve at exposure to new positive information regardless of its argument strength. In contrast, the attitudes of those weakly identified will improve only when the argument is strong. The findings supported this prediction in the context of ambivalence toward an institution.

Ambivalent Attitudes and Persuasion

The idea that positive and negative evaluations are reciprocally activated and that evaluation of an object can be described by a single bipolar system ranging from very unfavorable to very favorable was challenged by attitude researchers as early as three or four decades ago (e.g., Kaplan, 1972; Scott, 1968). This issue has also received attention more recently (e.g., Cacioppo, Gardner, & Bernston, 1997; Priester & Petty, 1996). It has been argued by these investigators that positive and negative evaluations can coexist and be independent, and that the more extreme the positive and negative evaluations toward an object are, the more ambivalent the attitudes toward the object will also tend to be.

The issue of how ambivalence toward an issue moderates information processing strategies has also attracted some research attention. The findings of this literature suggest that ambivalent attitudes are not highly diagnostic and thus people with ambivalent attitudes are eager to search for other relevant information to help them form their judgments (Armitage & Conner, 2000; Hodson, Maio, & Esses, 2001). As a result, ambivalent people are more motivated to engage in systematic processing and take argument strength into account (Jonas, Diehl, & Bromer, 1997). Prior research has focused primarily, however, on ambivalent attitudes toward the attitude target and the persuasive effects of information regarding the target.

In the persuasion process, we are likely to feel ambivalent toward the attitude object as well as the source of the information. Surprisingly, how people respond to issues or products endorsed by sources toward whom they feel ambivalent has not received much attention in the communication literature, despite the fact that we often encounter messages endorsed by people toward whom we feel ambivalent. For example, how does an individual who feels ambivalent toward former U.S. President George W. Bush respond upon hearing that Bush strongly supports

an issue or a senate candidate? If adolescents feel ambivalent toward authority figures, how do they respond to anti-smoking messages articulated by these figures? Questions such as these reflect important communication issues that merit research attention and thus are the focus of this investigation.

Experiment one was designed to extend the findings of prior research by exploring the influence of ambivalence toward a source on responses to strong and weak arguments in an advertising context. Advertising commonly features celebrities (movie stars, singers, or even politicians) toward whom consumers feel ambivalent. Celebrities are liked by people for their talent or expertise in specific areas (e.g., sports, music, arts), but some may also be disliked by the same people for poor or inappropriate behavior (e.g., doing drugs, striking their spouse, having an affair, shouting at fans). Controversial celebrities such as these are often employed as endorsers for products or issues that are relevant to their talents or expertise. They can be effective endorsers if their presence in an ad succeeds in attracting attention to the product or issue involved. How the degree of ambivalence toward such a source affects attitudes toward the messages she/he sponsors, however, is not known.

What is also missing in the literature on ambivalent attitudes and persuasion is how individual differences play a role. It is common for people to be exposed to mixed information about a target/source in the media, which causes ambivalent feelings toward the target/source. When they later encounter new information regarding the target/source, do all people engage in systematic processing and take argument strength into account? For example, people may read a negative comment about President Obama, which makes them feel ambivalent toward him. When they encounter new information regarding President Obama, do they scrutinize the argument strength of this new information? Prior research would suggest that they would (Jonas,

Diehl, & Bromer, 1997). However, experiment two proposes that whether people would engage in message scrutiny depends on their identification with the ambivalent target, be it a person, issue, or institution. Those who strongly identify with the target should engage in biased processing, trying to restoring their attitudes after exposure to new information without scrutinizing argument strength. In contrast, those weakly identified with the target should engage in systematic processing of new information, distinguishing strong from weak arguments.

Ambivalent Attitudes

Attitudes have been defined as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” (Eagly & Chaiken, 1993, p. 1). This view assumes that positive and negative evaluations are reciprocally activated and that evaluation of an object can be captured by a bipolar system ranging from very unfavorable to very favorable. However, some researchers (Kaplan, 1972; Scott, 1968) have suggested that positive and negative evaluations of an object can be independent. Furthermore, a continuous bipolar scale cannot distinguish those who feel equally positive and negative toward an object from those who feel neither positive nor negative toward the object (Priester & Petty, 2001). The former are referred to as “ambivalent” and the latter as “indifferent” (Kaplan, 1972).

Attitude ambivalence was once regarded as an important attitudinal property (Scott, 1966, 1968). Following a lengthy period in which little research on the subject was conducted, recent findings have highlighted once again the importance of this property, and the relationship between ambivalence and other attitudinal elements has now been widely explored. For example, attitude ambivalence has been shown to be negatively associated with attitude strength (Armitage & Conner, 2000), attitude extremity (Thompson, Zanna, & Griffin, 1995), and attitude certainty (Gross et al., 1995). Recent research has also examined the antecedents of ambivalence. For

example, Priester, Petty, and Park (2007) found that anticipating conflicting reactions results in greater ambivalence. The imminence of an event can also increase attitudinal ambivalence toward the event (Jewell, 2003). Individual differences in ambivalence also appear to exist. For instance, people with certain personality traits (such as high preference for consistency) experience greater levels of ambivalence when holding both positive and negative attitudes toward an object (Newby-Clark, McGregor, & Zanna, 2002).

There are two recognized approaches to assessing ambivalence (Priester & Petty, 2001). The most common approach is to ask participants to provide separate ratings of their positive and negative attitudes toward a target. For example, Kaplan (1972) asked participants to evaluate an attitude object on a unipolar positive dimension separate from their negative evaluation of the object, and vice versa (Kaplan, 1972). Responses to the two unipolar items are then entered into a formula to calculate an index of attitude ambivalence. Different formulas for calculating the index of ambivalence have also been proposed (see Thompson et al., 1995, for a review). The second approach directly asks participants to indicate the degree of ambivalence they feel toward a target (e.g., Tourangeau, Rasinski, Bradburn, & D'Andrade, 1989; Sparks, Hedderley, & Shepherd, 1992). This approach is related to psychological experience and is assumed to measure subjective ambivalence. The predictive validity of these two measurement approaches as indicators of ambivalence has been supported (Bargh, Chaiken, Govender, & Pratto, 1992). In addition, the ambivalence indexes derived from these two approaches have been shown to be positively correlated across studies (Priester & Petty, 1996).

Ambivalence and Persuasion

The question of how ambivalent attitudes toward a target influence the persuasive effects of information regarding the target has recently received considerable attention in two separate

research streams. The first concerns whether ambivalent attitudes are more strongly influenced by persuasion than are univalent attitudes. It has been shown that those with highly ambivalent attitudes toward a target are more open to persuasion from information regarding the target than are those with less ambivalent attitudes (Armitage & Conner, 2000; Hodson et al., 2001).

Attitudes composed of conflicting positive and negative elements have low structural consistency (Armitage & Conner, 2000; Sengupta & Johar, 2002), and inconsistent attitudes are more susceptible to persuasion. For example, Armitage and Conner (2000) found that hospital workers with ambivalent attitudes toward low fat diets were more likely to be influenced by messages promoting such diets. Hodson et al. (2001) found that people high in ambivalence toward a social issue were more likely to be influenced by messages about the issue than those who were low in ambivalence, if they were informed that their peers supported the messages. These findings suggest that because ambivalence is not conducive to consistent attitudes, people whose attitudes are ambivalent will be eager to search for other information to help them make their judgments, which would explain why they are more subject to the influence of persuasion.

The second research stream explores how those with ambivalent and univalent attitudes process persuasive information differently. It appears that people with ambivalent attitudes toward an object are motivated to engage in systematic processing. Drawing upon Chaiken's (1980) heuristic-systematic model, Jonas et al. (1997) argued that individuals who feel ambivalent toward an object have less confidence in their attitudes and thus engage in a systematic mode of information processing. They found that when participants read both positive and negative information regarding a product, they felt ambivalent toward the product, had lower confidence in their attitudes, and elaborated more on the messages. Maio, Bell, and Esses (1996) found that the attitudes of participants who felt ambivalent toward a minority group were more

affected by strong than by weak arguments, whereas for those who felt univalent, attitudes toward the minority group did not vary as a function of argument strength.

Ambivalence toward the Target vs. Ambivalence toward the Source

Prior research has focused on ambivalence toward the target and the influence of persuasive information related to the target. Nevertheless, in the persuasion process, people may feel ambivalent toward the target, be it a person, issue, or institution. And they may also feel ambivalent toward the source of the information (e.g., an official being interviewed on an issue, an endorser of a product, or a candidate in an ad). While it has been demonstrated that people respond to persuasive information in a systematic manner when they feel ambivalent toward the target (Maio, et al., 1996), it is yet not clear how people respond to persuasive information when they feel ambivalent toward the source of the information. This study addresses that gap in the literature by examining the effects of ambivalent attitudes toward an endorser on evaluations of the products he/she endorses.

Advertising messages are sometimes endorsed by celebrities toward whom people feel ambivalent. That is why it is believed that there are risks to using celebrities as endorsers (Till & Shimp, 1998; Louie, Kulik, & Jacobson, 2001). For instance, celebrities may be involved in scandals, substance abuse, or unlawful behavior, which can cause embarrassment to the advertisers and the endorsed brands. Till and Shimp (1998) found, for example, that when participants were informed about the product sponsorship of a celebrity, subsequent negative news about the celebrity damaged attitudes toward the endorsed brand. Endorsing multiple products also decreases likeability (Tripp, Jensen, & Carlson, 1994).

Because consumers may appreciate a celebrity's specific talent or expertise even if he/she engages in inappropriate behavior, celebrity sponsors toward whom people hold ambivalent

attitudes can be used to examine the effects of source ambivalence. How consumers respond to messages endorsed by celebrities toward whom they feel ambivalent thus is one focus of this investigation.

Advertising research has found that attitudes toward a source can influence attitudes toward the endorsed product(s) (Amos, Holmes, & Strutton, 2008). However, this may not hold when attitudes toward the source are ambivalent. Jonas et al. (1997) argued that individuals who feel ambivalent toward an object have less confidence in their attitudes and thus engage in systematic processing. If so, those who feel ambivalent toward a celebrity should have low confidence in their attitudes toward the celebrity and thus be less likely to use their attitude toward the celebrity as a judgment input when evaluating endorsed products. In other words, when reading an ad that shows the celebrity sponsoring a product, they may well perceive that their ambivalent attitudes toward the celebrity cannot help them evaluate the product and will thus be motivated to engage in systematic processing of the ad messages. As a result, they should be more affected by argument strength.

In contrast, those who do not feel ambivalent toward the celebrity sponsor presumably have a more consistent attitude structure. They should have greater confidence in their attitudes and thus believe that their existing attitudes toward the source can help their evaluation of the advertised product. They thus do not feel the need to engage in systematic processing. Rather, their existing attitudes toward the sponsor should be diagnostic and predict their attitudes toward the brand.

Hypothesis 1: For those who feel ambivalent toward a celebrity endorser, attitudes toward the advertised brand will be affected by argument strength, such that strong arguments will result in more favorable brand attitudes, but existing attitudes will not influence brand attitudes. For those who feel univalent toward the celebrity,

however, brand attitudes will not be influenced by argument strength but rather by existing attitudes toward the celebrity.

Experiment One

Method

Design

The experiment featured a 2 x 2 between-subjects factorial design. The manipulated factor was product claim argument strength (strong vs. weak). Participants were also categorized as either ambivalent or univalent toward the celebrity endorser.

Stimuli

Two pretests were conducted to help select the celebrity endorser. In the first pretest, 10 graduate students were asked to list celebrities toward whom they felt ambivalent. The three celebrities listed most frequently were examined in the second pretest, in which ambivalence was measured using Kaplan's (1972) positive and negative items. Thirty-one college students completed the following positive item: "Considering only the positive qualities of the celebrity and ignoring his/her negative qualities, please indicate how positive his/her positive qualities are on the following 4-point scale: (1) not at all positive; (2) slightly positive; (3) quite positive; and (4) extremely positive." They also completed the following negative item: "Considering only the negative qualities of the celebrity and ignoring his/her positive qualities, please indicate how negative his/her negative qualities are on the following 4-point scale: (1) not at all negative; (2) slightly negative; (3) quite negative; and (4) extremely negative." Their responses to the two items were used to form an ambivalence index, using Griffin's formula: $(P+N)/2 - |P-N|$ (see Table 1) (Thompson et al., 1995). Scores higher than 2.5 were categorized as ambivalent and those lower than 2.5 were categorized as univalent. The celebrity toward whom a roughly equal

number of participants felt ambivalent and univalent was selected to be the target celebrity. The selected celebrity was a politician respected for his profound knowledge but notorious for his outspokenness and audacity.

The ad was for a mobile phone with the fictitious name “ASP.” The ad copy suggested that the brand had been recently imported from abroad and launched in the market. The celebrity was featured in the center of the ad and the ad copy suggested that he used the featured product. The copy and layout of the ads were held constant across all conditions with the exception of product claims, as described below.

The ads featured either strong or weak product claims. Adopting Petty, Cacioppo, and Schumann’s (1983) procedures, argument strength was manipulated by including product claims that varied in importance. The strong argument ad contained product claims people considered important when purchasing mobile phones in a pretest. Since it is not realistic for ads to feature extremely unimportant product claims, the weak argument contained those that people rated as less important but not inconsequential. In the pretest ($N = 35$), participants rated the importance on a 7-point Likert scale of a list of mobile phone attributes. Based on the importance ratings, three important product attributes (good design, $M = 5.91$, $SD = 1.10$, built-in high pixel camera, $M = 5.71$, $SD = 1.32$, and quick repair service, $M = 5.57$, $SD = 1.24$) and three less important attributes (two display windows, $M = 4.31$, $SD = 1.49$, exchangeable front and back covers, $M = 4.26$, $SD = 1.44$, and clamshell design, $M = 4.00$, $SD = 1.57$) were selected.

Participants and Procedures

Ninety-two participants (43.5% male) were recruited from a university and paid for their participation. Participants who responded to recruiting ads first answered a short survey online, in which they rated their ambivalence toward the target celebrity and other filler celebrities

(using both subjective ambivalence items and Kaplan's positive and negative items). Assessing ambivalence at this stage was done to reduce sensitivity to the purpose of the study. If participants had been asked to rate ambivalence toward the celebrities immediately before rating the brand endorsed by one of the celebrities, they would have been more likely to guess the purpose of the research and respond to the questionnaire in ways that anticipated investigator expectations.

Participants enrolled for specific time slots and came to a research lab to complete the experiment. Upon arrival, they were randomly assigned to one of the two conditions (strong vs. weak argument). They were asked to read a filler watch ad followed by the stimulus ad. They then completed measures assessing their attitudes toward the brands featured in the ads.

Independent Variables

Ambivalence toward the celebrity. As discussed earlier, Priester and Petty (2001) identified two approaches to measuring attitude ambivalence: subjective ambivalence and ambivalence calculated from separate positive and negative attitude ratings. In this experiment, the first method was used to categorize participants and the second was used to confirm the effectiveness of the categorizations.

In the pre-exposure online survey, participants were asked to rate their ambivalence on a 7-point Likert scale using Priester and Petty's (2001) items: "My attitudes toward the person are conflicted" and "My attitudes toward the person are not mixed" (reverse-scored item). Participants were categorized based on their averaged subjective ambivalence. Twenty-seven participants with ratings above the scale midpoint of 4 were categorized as ambivalent and 44 participants with ratings below 4 were categorized as univalent. The data from the 21 participants with a rating of exactly 4 were removed from the analyses.

In the pre-exposure survey, they also rated the celebrity on Kaplan's (1972) positive and negative items, from which ambivalence scores were calculated using Griffin's formula (Thompson et al., 1995). A one-way ANOVA revealed that the two groups differed significantly on ambivalence, $F(1, 69) = 16.91, p < .01, M_{\text{ambivalent}} = 2.07, SD = 1.13; M_{\text{univalent}} = .86, SD = 1.25$. The method of categorization was thus deemed satisfactory.

Argument strength. As noted earlier, argument strength was manipulated using important versus less important product claims determined in a pretest. Participants in the main experiment also rated the importance of a list of product attributes. T-tests were used to compare average ratings of the three important and three less important attributes. The difference was significant, $t(91) = 16.48, p < .01, M_{\text{important}} = 5.71, SD = .81, M_{\text{less important}} = 3.63, SD = 1.10$. Thus this manipulation was satisfactory.

Existing attitudes toward the celebrity. In the pre-exposure online survey, participants indicated on a 7-point Likert scale how much they liked the celebrity, using the following two items: "In general, I like this person," and "In general, my attitudes toward this person are favorable." (Cronbach's alpha = .93).

Dependent Measure: Brand Attitudes

On 7-point Likert scales, participants indicated the degree to which each of the following evaluative items from Chang (2002) applied to the brand: "good," "positive," "likable," "pleasant," and "good quality" (Cronbach's alpha = .82).

Results and Analyses

Two regression analyses were conducted to test Hypothesis 1 (see Table 2). The strong argument condition was coded "1" and the weak argument condition was coded "0." For those in the ambivalent group, when brand attitudes were regressed upon argument strength and existing

attitudes, strong arguments accounted for significant variance in brand attitudes, $\beta = .47, p = .01$, whereas existing attitudes did not, $\beta = .19, p = .29, R^2 = .26$. This was as expected.

The second analysis was run on participants in the univalent group. Consistent with expectations, strong arguments did not predict brand attitudes, $\beta = .06, p = .70$, while existing attitudes did, $\beta = .38, p = .01, R^2 = .15$. Thus Hypothesis 1 was supported.

Discussion

For ambivalent participants, strong arguments led to more favorable brand attitudes than did weak arguments. In contrast, argument strength did not influence brand attitudes among univalent participants. For this group, it was their existing attitudes toward the celebrity before the ad exposure that predicted brand attitudes.

Previous research has shown that, when people feel ambivalent toward the target on which the persuasive information is focused, they engage in systematic processing and thus respond more favorably when the information contains strong (vs. weak) arguments. The present findings further suggest that people who feel ambivalent toward the source of the persuasive information also engage in systematic processing by responding more favorably when the information contains strong (vs. weak) arguments. It also stands to reason that individual differences influence the degree to which people rely on argument strength as judgment inputs when they feel ambivalent toward the target or the source.

Identification as a Moderator

Social identification has been defined as the perception of belongingness to a social group (Tajfel & Turner, 1985). Identification can be parasocial or established via mass media (Basil, 1996). Thus, identification in general can be the degree to which people perceive belongingness to or connections with an organization, a person, or even an issue. People vary in the degree to

which they identify with an issue, a political candidate, a brand, or an organization for which persuasive information can be provided (e.g., Mael & Ashforth, 1992). They also vary in the degree to which they identify with celebrities or politicians commonly used to convey the persuasive information (e.g., Basil, 1996; Homer & Kahle, 1990). It stands to reason that those who strongly identify with an object should have a stronger attitudinal commitment toward that object. People with strong attitudinal commitment have been shown to respond to persuasive information regarding the attitude object differently from those with weak commitment (Ahluwalia, Burnkrant & Unnava, 2000; Raju & Unnava, 2006). For example, they are more likely to engage in motivated reasoning (Ahluwalia et al., 2000; Raju & Unnava, 2006).

Motivation can encourage self-serving reasoning (Kunda, 1987; 1990). According to Kunda, those motivated to arrive at a preferred conclusion rely on messages that help yield that conclusion. Such persons also apply less stringent criteria to evaluating new information that supports their positions. Motivated reasoning may be more likely to occur when people feel aroused (Raju & Unnava, 2006) or when they experience attitudinal inconsistency (Jain & Maheswaran, 2000). In the same way, attitudinal ambivalence should also encourage motivated reasoning, especially when people are strongly identified with the person toward whom they feel ambivalent.

As both the first experiment and prior research shows, when made to feel ambivalent, people engage in systematic processing. However, in-depth processing does not appear to eliminate the self-serving bias generated by motivated individuals (Kunda, 1990). Thus, when people who are strongly identified with a target are made ambivalent toward it (through exposure to negative information), they should be eager to reduce their ambivalence and engage in motivated reasoning. When encountering new information regarding the target that is supportive

of their original attitudes, they should elaborate the messages in a biased way in order to accept them easily regardless the argument quality of the information. When not made to feel ambivalent, those strongly identified with the issue should not be motivated to engage in message elaboration or motivated reasoning. As a result, they should not experience much attitude change. In sum, it is expected that attitude change will be positive in the ambivalent condition (but not in the univalent condition) for people who have strong identification, regardless of the argument strength of the information.

Hypothesis 2a: Those who identify strongly with a target will experience positive attitude change upon reading new information about the target when they feel ambivalent but not univalent toward it.

In contrast, when those weakly identified with a target are made to feel ambivalent about it, they should engage in systematic processing by scrutinizing the strength of the argument. Their attitudes will improve only if the new information presents a strong argument. When not made ambivalent, it is expected that these people will not adopt systematic processing and thus will not respond differently based on the strength of the argument contained in the new information.

Hypothesis 2b: For those who identify weakly with a target, attitude change upon reading new information regarding the target is affected by argument strength when they feel ambivalent but not univalent toward the target.

Experiment Two

Method

Design

The experiment featured a 2 x 2 x 2 between-subjects factorial design. The attitude target was the university which participants attended. The manipulated factors were story prime

(ambivalent vs. neutral e-news story about the university) and argument strength (strong vs. weak arguments in reader comments on the story). Participants were also categorized according to their level of identification with their school.

Stimuli

E-newsletter. The e-newsletter was about the university that the participants currently attended, and toward which they generally felt positive (Mean attitude = 5.43 on a 7-point scale). The stories used as the ambivalent and neutral primes featured the same three issues—a newly-remodeled campus cafeteria, the fee for dormitory use, and the rights of custodians—all of which had sparked recent criticism of the school. Given that most participants felt positive toward the school, the story that was designed to induce ambivalent attitudes toward the university featured critical content regarding how the university handles these issues. The story used for the neutral prime condition simply reported events in a neutral tone. The argument strength of the two articles was controlled to reduce any confounding influences. The two stories were found to be statistically similar in argument strength as assessed with Dillard, Weber and Vail's (2007) scale, $F(1, 163) = 1.60, p = .21, \eta_p^2 = .01, M_{\text{ambivalent}} = 4.45, SD = 1.19; M_{\text{neutral}} = 4.21, SD = 1.19$.

Strong vs. weak arguments. Participants read four reader comments on the e-news article. All four comments were supportive of the university but were designed to be either strong or weak in argument strength. A pretest ($N = 240$) helped select the strong and weak comments. A manipulation check found that strong comment were significantly stronger than weak arguments, $F(1, 232) = 75.93, p < .01, \eta_p^2 = .25$. The means for the four strong comments were 4.53 ($SD = 1.15$), 5.20 ($SD = 0.99$), 4.97 ($SD = 1.04$), and 4.33 ($SD = 1.29$), whereas the means for the four weak comments were 3.03 ($SD = 1.44$), 3.83 ($SD = 0.99$), 3.42 ($SD = 1.24$), and 3.48 ($SD = 1.18$).

Participants and Procedures

One hundred and fifty six participants (50.9% male) were recruited from the same university as in the first experiment and paid for their participation. As in the first experiment, those interested in participating answered a short online survey in which they indicated their attitudes toward their school.

Participants enrolled for specific time slots and came to a research lab to complete the main experiment. They were told that the research concerned how people process information regarding a newly launched student e-newsletter featuring news at college campus throughout the country. The article in the e-newsletter was about their school. At the bottom of the article, there was a counter indicating how many people had left comments (in this case, four) as well as a click-through to the next page. When they moved to the next page, a pop-up window asked them to rate their ambivalence and their general attitudes toward their university. This is similar to the system employed by AOL news, where each news item is followed by questions asking the reader how they liked the story (e.g., thumbs up or thumbs down). After that, another pop-up window asked participants whether they would like to read other readers' comments. All participants clicked yes and read the comments, after which they completed measures assessing their attitudes toward their school and the argument strength of the four reader comments.

Independent Variables

Ambivalence prime. The story designed to induce ambivalent attitudes generated higher levels of felt ambivalence than did the neutral story. Participants rated themselves using a 7-point Likert scale on Priester, Petty, and Park's (2007) felt ambivalence scale, which includes the following items ("XX" is a stand-in for the name of their university): "My reactions toward XX were mixed," "I felt conflicted in my reaction to XX," "I felt tension in my thoughts and feelings

about XX,” and “I felt ambivalent toward XX” (Cronbach’s alpha = .83). One of the scale items, “I experienced behavioral indecision,” did not apply to this study and therefore was not included. As expected, those in the ambivalent condition reported greater levels of ambivalence after reading the news than did those in the neutral condition, $F(1, 160) = 19.22, p < .01, \eta_p^2 = .11$, $M_{\text{ambivalent}} = 4.48, SD = 1.14$; $M_{\text{neutral}} = 3.66, SD = 1.31$. The interaction between story prime and identification group was not significant, $F(1, 160) = .39, p = .53$, suggesting that the story primed the same degree of felt ambivalence in those reporting both high and low identification with the university.

Target identification. Participants completed Mael and Ashforth’s (1992) organization identification scale, which includes the following six items: “When someone criticizes XX, it feels like a personal insult,” “I am very interested in what others think about XX,” “When I talk about XX, I usually say ‘we’ rather than ‘they,’” “XX’s successes are my successes,” “When someone praises XX it feels like a personal compliment,” and “If a story in the media criticized XX, I would feel embarrassed” (Cronbach’s reliability = .86). Participants were categorized as either high ($N = 86$) or low ($N = 79$) identifiers based on a median split (5.83).

Comment argument strength. Participants rated the four comments using the following scale by Dillard, Weber, and Vail (2007): “The information provided is logical,” “The reasoning used is sound,” “The information provided is plausible,” “The information provided is believable,” and “The material contains persuasive arguments” (Cronbach’s alpha = .93, .94, .95, and .94 for comments one through four, respectively). Repeated measures ANOVA showed that strong argument comments led to higher scale ratings than weak argument comments, $F(1, 161) = 40.34, p < .01, \eta_p^2 = .20$ (the grand means for the four strong and four weak comments were 4.62 and 3.74, respectively).

Dependent Measure: Attitude Change

Participants rated their attitudes toward their university using the three items in the brand attitude scale of Miniard et al. (1991), with the wording altered as follows to fit the present study: “I like this university,” “I feel positive toward this university,” and “I feel favorable toward this university.” They completed this scale both after reading the news story (Cronbach’s $\alpha = .95$) and after reading the reader comments (Cronbach’s $\alpha = .94$). Ratings after reading the story were deducted from ratings after reading the comments, with positive scores indicating a positive attitudinal shift and negative scores indicating a negative shift.

Analyses and Results

The three-way interaction was tested using both ANOVA and regression. ANOVA found the three-way interaction between story prime, argument strength, and identification to be significant, $F(1, 157) = 5.87, p = .02, \eta_p^2 = .04$ (see Table 3). A similar result was obtained through regression. When attitude change was regressed upon target identification (a continuous score), argument strength (strong coded 1 and weak coded -1), story prime (ambivalent coded 1 and univalent coded -1), the three two-way interaction terms, and the three-way interaction term, the results show that the three way interaction was significant, $\beta = -.91, p = .02$, justifying additional analyses. Subsequent analyses were conducted using ANOVA.

For those who identified strongly with the university, only the effect of story prime was significant, $F(1, 82) = 11.85, p < .01, \eta_p^2 = .13, M_{\text{ambivalent}} = .55, SD = .87, M_{\text{univalent}} = -.02, SD = .63$ (see Table 3). Ambivalent participants experienced significantly greater positive attitude change than univalent participants after reading the positive comments of other readers. This supported Hypothesis 2a.

As expected, for those who identified weakly with the school, the interaction between

argument strength and story prime was significant, $F(1, 75) = 4.09, p = .05, \eta_p^2 = .05$. When primed to feel ambivalent, strong but not weak arguments led to positive attitude change, $F(1, 37) = 5.15, p = .03, \eta_p^2 = .12, M_{\text{strong}} = .49, SD = .95, M_{\text{weak}} = -.39, SD = 1.46$. In contrast, when not primed for ambivalence, argument strength did not affect attitude change, $F(1, 38) = .01, p = .98, \eta_p^2 < .01, M_{\text{strong}} = .21, SD = .82, M_{\text{weak}} = .21, SD = .42$. This supported Hypothesis 2b.

Discussion

For people who were strongly identified with the university, feeling ambivalent appeared to encourage biased processing, which improved attitudes toward the target. These participants appeared to welcome new information without taking argument strength into account. Those strongly identified with the university, but whose attitudes toward the target were not challenged, did not experience much attitude change.

For people who were weakly identified with the university, feeling ambivalent appeared to encourage systematic processing, with strong new information leading to greater attitude change than weak information. Feeling univalent, however, did not lead to systematic processing, and argument strength thus did not affect attitude change in that condition.

General Discussion

Findings

This research extends the prior literature on ambivalent attitudes in two important ways. First, while previous research has explored the influence of ambivalent attitudes toward a particular issue on how information regarding the issue is processed, this study examined the influence of ambivalent attitudes toward a source on how information about an object the source endorses is processed. Second, this study tested an individual differences factor, identification with the issue, as a moderator of the effects of processing issue-related information when people

feel ambivalent (as opposed to univalent) toward the issue. These two extensions of the prior literature are important for the field of communications and communication research because communication is initiated by a specific source and receivers of communication usually vary significantly in the degree to which they are committed to or identified or involved with what is being communicated.

In experiment one, when people felt ambivalent toward a celebrity endorser, ads featuring strong product claims were more effective than those featuring weak product claims, suggesting that ambivalent attitudes toward the celebrity were not informative and that additional information was needed in order to evaluate the product. In contrast, when participants felt univalent toward the endorser, they relied on existing attitudes toward the endorser as a judgment input, suggesting that existing univalent attitudes were sufficiently informative.

In the first experiment, participants were categorized based on subjective ambivalence, and a method of calculating ambivalence scores based on Kaplan's (1972) items and Griffin's formula (Thompson et al., 1995) was employed to confirm the effectiveness of that categorization. As expected, those categorized as ambivalent and univalent using subjective ambivalence ratings were significantly different in the expected direction on ambivalence scores calculated using Kaplan's items and Griffin's formula. This is consistent with previous research (Priester & Petty, 1996), echoing the finding that ambivalence scores measured using these two approaches are positively related.

In experiment two, identification was shown to be an important moderator. When feeling ambivalent, strongly identified participants engaged in motivated processing, and their attitudes improved regardless of the strength of the new information. In contrast, weakly identified participants engaged in systematic processing, changing their attitudes only in the face of strong

new arguments.

Future Research Directions

In addition to being ambivalent, attitudes can also be univalent positive, in which positive evaluations dominate negative ones, or univalent negative, in which negative evaluations dominate positive ones. Additionally, people may feel indifferent—neither positive nor negative. Experiment one examined those who held ambivalent as opposed to univalent negative attitudes toward the source. It may be the case that ambivalent celebrities are more likely to evoke ambivalent versus univalent negative responses rather than ambivalent versus univalent positive responses. Negative news regarding a celebrity may influence some people to the point that their attitudes toward the celebrity become wholly negative (univalent), whereas others might still believe in the celebrity's positive qualities and thus be ambivalent. Future research can explore whether sources that evoke both univalent positive and univalent negative attitudes encourage different processing modes.

This first experiment examined ambivalent responses to celebrity endorsers. However, people may also hold ambivalent attitudes toward the endorsed brand or an issue. How consumers respond to ads for a brand or an issue they feel ambivalent toward is also an important research question to explore. Recent research has examined what factors may account for ambivalent attitudes toward a product (e.g., Priester et al., 2007); but the influence of brand attitude ambivalence or issue attitude ambivalence also warrants more research attention in the future.

Even though people may feel ambivalent toward a celebrity, do they always take both positive and negative attitudes into account when evaluating the cause/issue/product the source endorses? It seems likely that positive and evaluations regarding a source coexist and are both

available, and that their activation hinges upon individual differences or context. For example, in certain situations people may engage in avoidance processing strategies and focus on the negative aspects of their evaluation of the celebrity, thus generating negative responses to the sponsored cause/issue/product. In other situations, people may believe that the celebrity is being used as an endorser because of their positive traits (expertise or talents) and may ignore negative aspects of the celebrity when formulating judgments of the cause/issue/product he/she endorses. This line of research also deserves more attention.

Experiment two showed that the attitudes of some participants who had been primed for ambivalence improved upon encountering new information. However, it is unclear whether their original positive attitudes had been restored or whether they had instead abandoned their old attitudes and adopted new ones. It is believed that attitudes toward an object may evolve over time. Petty (2006) observed that when attitudes change from one valence to another, people often think that they have rejected their previous attitudes without consciously experiencing any subjective ambivalence. Nevertheless, under certain conditions they might respond to the object as if they felt ambivalent toward it. Petty calls this “implicit ambivalence,” as opposed to explicit ambivalence. He also argues that, for those who have implicitly ambivalent attitudes toward an object, their prior (implicit) attitudes guide their behavior when there is little time for them to think. For example, for individuals who used to love Whitney Houston and later develop ambivalent attitudes toward her, their first response to her presence should be positive when no elaboration is allowed. Petty’s findings suggest the importance of distinguishing between implicit and explicit ambivalence. Future research can explore whether these two types of ambivalence toward a celebrity may differentially influence views of the product or issue he/she endorses in different contexts.

Implications for Practical Applications

The findings of this study are of practical value to communication and advertising professionals who may develop celebrity endorsement strategies for health, product, or political campaigns. Experience suggests that attitudes toward some celebrities are more accurately described as ambivalent than as univalent. Therefore, exploring the influence of such ambivalence on attitudes toward the issues or products they endorse is crucial. The extant literature does not address the important question of whether it is advisable to avoid using as product endorsers celebrities toward whom consumers may feel ambivalent. The findings reported in the first experiment suggest that, when using such celebrity endorsers (probably in an effort to draw attention to the target), it is advisable for advertisers to employ strongly persuasive messages.

In the second experiment, negative media information was used to alter attitudes toward an institution from univalent positive to ambivalent. This is indeed a very common phenomenon. For example, scandals involving politicians or celebrities we like or respect, or controversial information regarding a cause or an issue in which we have heretofore strongly believed, can spark ambivalence. In the face of scandal or controversy, the persons involved often launch public relations campaigns to restore public trust. Therefore, understanding how people respond to new information is not only academically important but can have practical value for campaigners as well.

Limitations

The findings of this study should be interpreted with certain limitations in mind. First, the ads used in the first experiment featured a fictitious brand. When ads feature a known brand, ambivalence toward the celebrity may moderate responses to the brand in different ways. For

example, existing attitudes toward the brand may have a stronger effect on brand attitudes than do existing attitudes toward the celebrity. In addition, in experiment two the moderating role of individual differences was tested only in the context of ambivalence toward the target, not toward the source. A replication using ambivalence toward the source is now underway. If this paper is accepted, the results of the new experiment will be included in my conference presentation in June.

Despite the limitations of the study, its findings shed light on our understanding of the role that ambivalent attitudes play in mass communications and therefore are valuable for communication and advertising professionals.

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Table 1

Ambivalence Scores Based on Griffin's Formula: $(P+N)/2 - |P-N|$

	Positivity			
Negativity	1	2	3	4
1	1	.5	0	-.5
2	.5	2.0	1.5	1.0
3	0	1.5	3.0	2.5
4	-.5	1.0	2.5	4.0

Table 2

Summary of Regression Analysis for Variables Predicting Brand

Attitudes in Experiment One

Variables	Univalent (N = 43)			Ambivalent (N = 26)		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Existing attitudes toward the celebrity	.28	.11	.38*	.12	.11	.19
Argument strength	.13	.35	.05	.76	.29	.47*
R^2	.15			.26		

Note. The strong argument condition was coded "1" and the weak argument condition "0." * $p <$

.05

Table 3

Summary of ANOVA Results for Attitude Change in Experiment Two

	All participants		
	<i>F</i>	<i>p</i>	η_p^2
Story prime (S)	2.24	.14	.01
Argument strength (A)	.70	.41	.01
Identification (I)	1.00	.32	.01
S x A	.74	.39	.01
S x I	7.08	.01	.04
A x I	5.83	.02	.04
S x A x I	5.87	.02	.04
	Strong identifiers		
	<i>F</i>	<i>p</i>	η_p^2
Story prime (S)	11.85	.01	.13
Argument strength (A)	1.71	.19	.02
Identification (I)	1.68	.20	.02
	Weak identifiers		
	<i>F</i>	<i>p</i>	η_p^2
Story prime (S)	.51	.48	.01
Argument strength (A)	4.02	.05	.05
Identification (I)	4.09	.05	.05

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