

Effect of Regulatory Focus on Selective Information Processing

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Individuals tend to selectively rely on information consistent with their attitudes or decisions. In this research, we examine the possibility that regulatory focus influences selective information processing. We find that individuals selectively rely on information consistent with their regulatory orientation under high (vs. low) information load. Specifically, under high information load, relative reliance on positive (vs. negative) information is greater for promotion-focused (vs. prevention-focused) individuals. Consequently, when information load is high, promotion-focused (vs. prevention-focused) individuals have higher brand evaluations. Under low information load, individuals also rely on information inconsistent with their regulatory orientation. Specifically, under low information load, relative reliance on positive (vs. negative) information is greater for prevention-focused (vs. promotion-focused) individuals. As a result, when information load is low, prevention-focused (vs. promotion-focused) individuals have higher brand evaluations.

In recent years, research has investigated the effect of regulatory focus on attitudes and persuasion (Aaker and Lee 2001), outcomes to which people are most sensitive (i.e., gains or losses; Markman, Baldwin, and Maddox 2005), judgment strategies (i.e., eager or vigilant; Higgins and Molden 2003), consideration of alternative hypotheses (Liberman et al. 2001), and decision-making strategies (Kirmani and Zhu 2007; Monga and Zhu 2005; Pham and Avnet 2004; Pham and Chang 2010). Yet the effect of regulatory focus on selective information processing and its subsequent influence on brand evaluations have received little attention in extant literature. In this research, we extend previous research by examining the possibility that regulatory focus influences selective information processing. We examine

this issue when consumers are exposed to negative news and subsequent commentaries from other consumers (both positive and negative) about a brand.

With widespread use of the Internet to disseminate news and information, consumers are increasingly expressing their opinions about brands on online news forums, webcasts, or personal home pages (Hennig-Thurau et al. 2004). Some news about brands generates several commentaries; other news generates only a few (Park, Lee, and Han 2007). For example, while an article about Sony's battery recall featured in *Business Week Online* yielded only three commentaries (Hall 2006), an article reporting a labor issue at Starbucks generated 94 commentaries (Herbst 2008). As the number of commentaries increases, information load also increases (Jacoby, Speller, and Berning 1974).

According to selective information-processing literature, individuals often simplify the judgment formation and evaluation process by focusing selectively on consistent pieces of decision-relevant information, while neglecting inconsistent pieces of decision-relevant information (Frey 1986; Sanbonmatsu et al. 1998). Recent research suggests that selective processing of consistent information occurs particularly when information load is high (vs. low; Fischer, Schulz-Hardt, and Frey 2008; Kardes et al. 2004). For example, Fischer et al. (2008) showed that when more than two pieces of information were available, the complexity of decision making was higher, motivating individuals to re-

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duce the complexity of decision making by searching for decision-consistent information.

In this research, we show that under high information load, relative reliance on positive (vs. negative) information is greater for promotion- (vs. prevention-) focused individuals. In contrast, under low information load, relative reliance on positive (vs. negative) information is greater for prevention- (vs. promotion-) focused individuals. The findings of this article contribute to the existing literature in several ways. First, we extend the literature on selective information processing as well as the literature on motivational orientation by demonstrating the effect of regulatory focus on selective information processes. Second, we extend the literature on negative publicity by showing that information load and regulatory focus have an interactive effect on brand evaluations for existing brands as well as for new brands. Third, we extend the branding literature by demonstrating that more (vs. less) favorable existing brand associations activate promotion (vs. prevention) focus. This finding adds to the growing body of research pointing to how activation of brand names influences consumer mindsets and subsequent information processing (Fitzsimons, Chartrand, and Fitzsimons 2008).

CONCEPTUAL BACKGROUND

Selective Information Processing and Information Load

Receiving information that is consistent with one's attitudes or beliefs on an issue allows individuals to conclude that their attitudes and beliefs are correct but may often obscure reality. However, receiving information that is inconsistent with one's attitudes or beliefs on an issue can cause individuals to feel ignorant but may allow them to see the reality. Therefore, it is important to understand how individuals select information about an issue when several alternatives are present (Hart et al. 2009).

Most of the research in selective information-processing literature has been conducted in the context of dissonance theory (Festinger 1957; Frey 1986; Jonas et al. 2001). According to dissonance theory, individuals experience cognitive dissonance because the negative aspects of the selected alternative and the positive aspects of the rejected alternatives become salient after the decision. One way to reduce dissonance is selective processing of consistent information (Frey 1986). Research suggests that individuals are likely to select consistent information when they have strong commitment to their position (Schwarz, Frey, and Kumpf 1980), when decisions are irreversible (Frey 1981), or when individuals are in negative affective states (Jonas, Graupmann, and Frey 2006). In addition, belief-consistent information is easier to process, and belief-inconsistent information is more difficult to process, leading to increased reliance on consistent (vs. inconsistent) information (Wyer and Srull 1989).

Selective information processing is also influenced by the amount of information available for judgment (Kardes et al.

2004). Research shows that preference for consistent information gets stronger with an increasing degree of complexity in the decision making (e.g., amount of available information; Fischer et al. 2008). For example, Kardes et al. (2004) show that consumers who believe that there is a strong positive relationship between price and quality are likely to focus on low-price/low-quality and high-price/high-quality products. They suggest that unexpected information (e.g., high price/low quality) is likely to be ignored, especially when processing is difficult (Kardes et al. 2004). Furthermore, individuals exhibit greater memory for belief-consistent information when information load is high and greater memory for belief-inconsistent information when information load is low and when the processing resources needed for inconsistency resolution are available (Bodenhause 1988; Wyer and Srull 1989).

Selective Information Processing and Regulatory Focus

Individuals are goal driven, and how they make decisions is influenced by their self-regulatory goals. According to regulatory focus theory, promotion-focused individuals strive to realize their ideals and aspirations to address their needs for growth and advancement. Promotion-focused individuals are inclined to approach matches to their goals (Kirmani and Zhu 2007). These individuals approach their goals with eagerness and are sensitive to gains and nongains (Crowe and Higgins 1997). They are likely to be sensitive to gain-related information that involves the presence or absence of positive outcomes (Markman et al. 2005). However, prevention-focused individuals strive to fulfill their duties and obligations to address their needs for safety and security (Higgins 1997). These individuals are inclined to avoid mismatches to their goals and are sensitive to losses and nonlosses (Crowe and Higgins 1997; Kirmani and Zhu 2007). Prevention-focused individuals are likely to be sensitive to loss-related information that involves the presence or absence of negative outcomes (Higgins and Tykocinski 1992; Markman et al. 2005).

Wang and Lee (2006) suggest that motivational orientation affects the type of information that individuals search for and rely on to make judgments and decisions. Specifically, they suggest that regulatory focus plays a focal role in directing individuals' attention to information that fits their regulatory orientation, especially when they are not motivated to process information. For example, they found that individuals who are not motivated to process information placed more weight on features that fit their regulatory focus. Specifically, promotion-focused individuals placed more weight on promotion features of a toothpaste (e.g., breath freshening, teeth whitening), and prevention-focused individuals placed more weight on prevention features (e.g., cavity prevention, plaque control). Recent meta-analysis on selective information processing also shows that motivational forces influence selective information processes (Hart et al. 2009). For example, individuals who have

defense (vs. accuracy) motivations are more likely to rely on motivation-consistent (vs. inconsistent) information. Pham and Higgins (2005) suggest that during an information search, promotion-focused individuals' approach tendencies make them more likely to focus on positive signals about the available options. In contrast, prevention-focused individuals' avoidance tendencies make them more likely to focus on negative signals. There is also neuroscientific evidence suggesting that regulatory focus is associated with relatively greater attention to positive stimuli under promotion focus and to negative stimuli under prevention focus (Cunningham, Raye, and Johnson 2005). For example, recent fMRI studies show that greater activation in amygdalae to negative and positive stimuli is associated with prevention and promotion focus, respectively (Cunningham et al. 2005). Hence, extant literature suggests the possibility that under promotion (prevention) focus, relative reliance on positive (vs. negative) information is higher.

We propose that this effect is more likely to occur when information load is high (vs. low). Under high information load, processing capacity of individuals is limited (Malhotra 1982). When a lot of information is provided, the evidential bases for judgment are scattered and complex (Kardes et al. 2004). Individuals are motivated to rely on a subset of available information only because they want to simplify the judgment formation. We suggest that individuals' motivational orientation is more likely to guide their reliance on a subset of information under high information load. Specifically, we propose that when information load is high, relative reliance on positive (vs. negative) information is greater for promotion-focused individuals. However, relative reliance on negative (vs. positive) information is greater for prevention-focused individuals. Moreover, relative reliance on positive (negative) information might mediate the effect of promotion (prevention) focus on brand evaluations under high information load. Consequently, we propose that promotion-focused (vs. prevention-focused) individuals are likely to have higher brand evaluations under high information load. Stated formally:

H1a: Under high information load, relative reliance on positive (vs. negative) information is greater for promotion-focused (vs. prevention-focused) individuals.

H1b: Under high information load, promotion-focused (vs. prevention-focused) individuals have higher brand evaluations.

When information load is low (vs. high), individuals have higher cognitive capacity to process inconsistent information, which is more difficult to process than consistent information (Malhotra 1982; Yzerbyt and Demoulin 2010). In addition, individuals may also be motivated to focus on inconsistent information under low information load for at least two major reasons. First, individuals may want to appear as unbiased decision makers and information processors (Kunda 1990). For example, Kunda (1990) suggests that

individuals often want to provide justification for their preferences. Hence, in order to appear unbiased, individuals under low information load may selectively process information that is inconsistent with their motivational orientation. Second, individuals can easily detect inconsistency when information load is low. Research suggests that individuals are motivated to resolve an apparent inconsistency (Hamilton and Sherman 1994). Previous research shows that because inconsistent information violates an expectation, it is surprising and hence draws individuals' attention and initiates attempts to explain the inconsistency (Clary and Tesser 1983). However, when cognitive capacity is limited, the inability to devote necessary resources for inconsistency resolution leads to an advantage to consistent information (Bodenhausen and Lichtenstein 1987; Macrae, Hewstone, and Griffiths 1993). Hence, individuals might be more likely to elaborate on inconsistent information in an effort to resolve an apparent inconsistency when information load is low (vs. high). Thus, we suggest that under low information load, individuals might also be motivated to process information that is inconsistent with their motivational orientation. Specifically, under low information load, relative reliance on positive (vs. negative) information might be greater for prevention-focused individuals. However, relative reliance on negative (vs. positive) information might be greater for promotion-focused individuals. Stated formally:

H2a: Under low information load, relative reliance on positive (vs. negative) information is greater for prevention-focused (vs. promotion-focused) individuals.

H2b: Under low information load, prevention-focused (vs. promotion-focused) individuals have higher brand evaluations.

H3: Relative reliance on positive (vs. negative) information mediates the effect of promotion (prevention) focus on brand evaluations under high (low) information load.

STUDY 1

Participants and Procedure

Eighty-seven individuals participated in a computer-based, U.S. nationwide e-panel. Participants were told that they would be participating in several studies that inquire about their life experiences, preferences, and some information about themselves. Participants first received the regulatory focus manipulation. Then, they were told that they would read some information regarding a newly introduced MP3 player from a (fictitious) brand and express their opinions about it. Next, information load manipulation, which included consumer commentaries, was provided. The dependent variables and control measures were then administered. At the end of the experiment, participants responded

to a suspicion probe and indicated what they thought the purpose of the study was. Finally, participants were thanked and debriefed.

Independent Variables

Regulatory Focus. Consistent with previous research (Lee and Aaker 2004), participants in the promotion (prevention) focus condition were asked to take a few minutes to think and write about their past hopes, aspirations, and dreams (duties, obligations, and responsibilities). Then, they wrote a short paragraph about two of these past hopes, aspirations, and dreams (duties, obligations, and responsibilities). Next, they took a few minutes to think and write about their current hopes, aspirations, and dreams (duties, obligations, and responsibilities). Then, they wrote a short paragraph about two of these current hopes, aspirations, and dreams (duties, obligations, and responsibilities).

Information Load. All participants read the following scenario: "Introduction of the new MP3 player series was a promising event for CYLN. However, today the company had to announce that the newly introduced MP3 players have a defect in their sound system. Although the new MP3 players have state-of-the-art technology, this technology does not prevent interference and noise from outside."

Participants then read either two or six consumer commentaries from *Consumer Comments Magazine* (see table A1 for consumer commentaries). The positive and negative consumer commentaries were pretested with 40 participants on 5-point bipolar scales. The results of the pretest showed that participants rated energy efficiency, high-quality sound delivery, and award-winning design as positive attributes ($M_{\text{eff}} = 3.97$, $M_{\text{sound}} = 4.31$, $M_{\text{design}} = 3.70$). Moreover, participants rated lack of advanced automatic features, difficulty of use, and lack of additional input and output jacks as negative attributes of the MP3 player ($M_{\text{features}} = 2.25$, $M_{\text{ease}} = 1.67$, $M_{\text{jacks}} = 2.33$). There were no significant differences in terms of attribute importance ratings.

In both information load conditions, half of the participants first read a negative commentary followed by a positive commentary, and the other half first read a positive commentary followed by a negative commentary. Moreover, there were equal numbers of positive and negative commentaries in both conditions.

Dependent Variables

Brand Evaluations. Participants indicated their overall attitude toward CYLN on the following 7-point bipolar scales: "very negative" versus "very positive," "not at all favorable" versus "very favorable," "very bad" versus "very good," and "very undesirable" versus "very desirable." These items were averaged to form an evaluation index ($\alpha = .84$).

Selective Information Processing. Participants indicated the extent to which they relied on negative (e.g., lack of advanced automatic features) and positive (e.g., high-quality

sound) commentaries in forming their overall evaluations on two 5-point scales (1 = not at all, and 5 = very much). We calculated a relative reliance on positive (vs. negative) information score by taking the difference between reliance on positive versus negative information.

Manipulation Checks and Other Measures. As a check for regulatory focus manipulation (Pham and Avnet 2004), participants indicated the extent to which they would prefer to "do what is right versus do whatever I want," "take a trip around the world versus pay back my loans," and "go wherever my heart takes me versus do whatever it takes for me to keep my promises" on three 5-point bipolar scales. Furthermore, they rated whether the number of commentaries was very low or very high on a 5-point bipolar scale. Participants also rated whether the commentaries from *Consumer Comments Magazine* were reliable on a 5-point scale. Moreover, consistent with previous research (Friedman and Förster 2001), participants indicated the extent to which they enjoyed reading commentaries (1 = not at all, and 5 = very much). Furthermore, they indicated the extent to which they would be interested in reading additional information about this newly introduced MP3 player on a 5-point bipolar scale. Participants also indicated the extent to which they knew products of CYLN on a 5-point scale (1 = not at all, and 5 = a lot).

Results

All dependent variables were analyzed using a 2 (information load: high, low) \times 2 (regulatory focus: promotion, prevention) between-subjects design.

Manipulation Checks and Other Measures. As a check for regulatory focus manipulation, participants in the promotion (vs. prevention) focus condition indicated that they do whatever they want to more than they do what is right (2.79 vs. 1.60; $F(1, 83) = 20$, $p < .001$), take a trip around the world more than pay back their loans (3.50 vs. 2.60; $F(1, 83) = 6.38$, $p < .05$), and go wherever their heart takes them more than do whatever it takes to keep their promises (3.85 vs. 3.17; $F(1, 83) = 4.78$, $p < .05$). No other effects were significant. As a check for information load manipulation, participants in the low (vs. high) information load condition rated that the number of commentaries was lower ($M = 2.45$ vs. 3.35; $F(1, 83) = 4.62$, $p < .05$). No other effects were significant. Moreover, the order of commentaries did not have any significant influence on our results ($p > .65$). Hence, we removed that factor from our analyses.

Results also show that participants on average were not knowledgeable about CYLN ($M = 1.15$, $SD = .36$). Moreover, participants did not differ in their perceptions of reliability ($p > .56$) of information provided by *Consumer Comments Magazine*. Task enjoyment ($p > .37$) and involvement levels ($p > .15$) did not significantly differ as a function of regulatory focus and information load.

Brand Evaluations. An ANOVA on the evaluation index yielded a significant regulatory focus by information load

interaction ($F(1, 83) = 33.14, p < .001$). There was no main effect of regulatory focus ($p > .71$) and information load ($p > .82$). Supporting hypothesis 1b, under high information load, promotion-focused (vs. prevention-focused) participants had higher brand evaluations (4.84 vs. 3.01; $F(1, 83) = 39.09, p < .001$). Supporting hypothesis 2b, under low information load, prevention-focused (vs. promotion-focused) participants had higher brand evaluations (3.88 vs. 3.27; $F(1, 83) = 4.99, p < .05$; see fig. 1).

Selective Information Processing. An ANOVA on relative reliance on positive (vs. negative) information yielded a significant regulatory focus by information load interaction ($F(1, 83) = 51.15, p < .001$). There was no main effect of regulatory focus ($p > .65$) and information load ($p > .77$). Consistent with hypothesis 1a, under high information load, relative reliance on positive (vs. negative) information was greater for promotion-focused (vs. prevention-focused) participants (2.68 vs. -1.64 ; $F(1, 83) = 71.03, p < .001$). Moreover, consistent with hypothesis 2a, under low information load, relative reliance on positive (vs. negative) information was higher for prevention-focused (vs. promotion-focused) participants (1.4 vs. -1 ; $F(1, 83) = 12.46, p < .001$).

Mediation Analyses. To assess the extent to which relative reliance on positive (vs. negative) information mediates the effect of promotion (prevention) focus on brand evaluations under high (vs. low) information load, we conducted mediated moderation analyses (Muller, Judd, and Yzerbyt 2005). The interpretation of the result is that relative reliance on positive (vs. negative) information mediates the interactive effect of regulatory focus and information load on brand evaluations (see table 1 for mediated moderation analysis).

To examine the indirect effects of information load, we conducted a bias-corrected (BC) bootstrapping analysis recommended by Preacher and Hayes (2008). Bootstrapping involves the repeated extraction of samples from the data set, in which we used 5,000 samples, and the estimation of the indirect effect in each resampled data set. Results suggest that relative reliance on positive (vs. negative) information mediates the effect of promotion focus under high (vs. low) information load. Specifically, under the high information load condition, the total indirect effect through relative reliance on positive (vs. negative) information as a mediator has a 95% BC bootstrap confidence interval (CI) of -1.58 and $-.42$ with an estimate of $-.74$. Furthermore, under a low information load condition, the total indirect effect through relative reliance on positive (vs. negative) information as a mediator has a 95% BC bootstrap CI of 0.02 and 0.46 with an estimate of .24. These results support our prediction that relative reliance on positive (vs. negative) information mediates the effect of promotion (prevention) focus on brand evaluations under high (low) information load (i.e., CI does not include zero).

Discussion

The findings of study 1 support our hypotheses that under high information load, relative reliance on positive (vs. negative) information is greater for promotion-focused (vs. prevention-focused) individuals. Moreover, under low information load, relative reliance on positive (vs. negative) information is greater for prevention-focused (vs. promotion-focused) individuals. Furthermore, we show that relative reliance on positive (negative) information mediates the effect of promotion (prevention) focus on brand evaluations under different information load conditions. Consequently,

FIGURE 1

BRAND EVALUATIONS (STUDY 1)

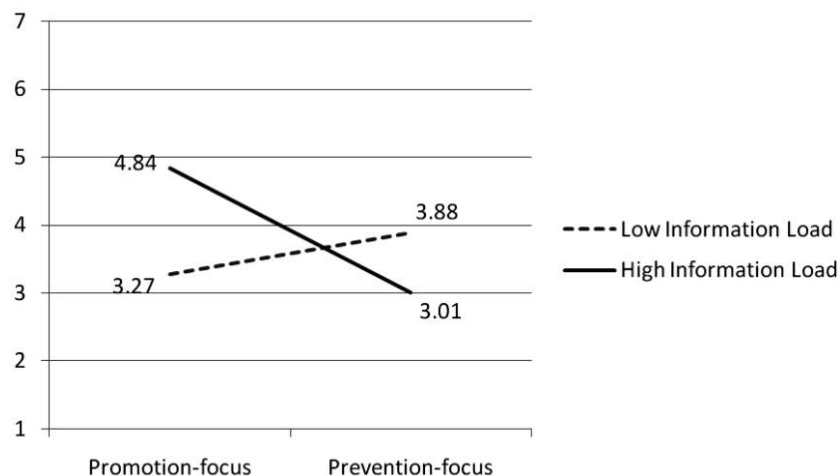


TABLE 1
STUDY 1: SUMMARY OF REGRESSIONS FOR MEDIATED MODERATION TEST

Predictor	Equation 1: Brand evaluations			Equation 2: Relative reliance on positive information			Equation 3: Brand evaluations		
	<i>B</i>	SE <i>B</i>	β	<i>B</i>	SE <i>B</i>	β	<i>B</i>	SE <i>B</i>	β
<i>X</i> , regulatory focus	3.06	.68	1.31***	6.32	1.20	1.36***	1.72	.74	.73
<i>Mo</i> , information load	4.02	.65	1.72***	9.01	1.14	1.95***	2.11	.83	.90
<i>XMo</i> interaction	-2.45	.43	-2.48***	-5.32	.74	-2.73***	-.21	.21	-.42 ^a
<i>Me</i> , relative reliance on positive information							1.32	.52	1.33***
<i>MeMo</i> interaction							.01	.12	.01

NOTE.—Bold indicates that β needed to be significant to qualify for a mediated moderation.

^a β needed to be nonsignificant to qualify for a full mediated moderation.

*** $p \leq .001$.

the results show that promotion (prevention) focus individuals have higher (lower) brand evaluations under high (vs. low) information load.

In order to replicate the findings of this study, we conducted another study using different manipulations and dependent variables in a different context. One hundred and twenty-five undergraduate students received partial course credit for participating in a research study. Participants first received the regulatory focus manipulation (Kirmani and Zhu 2007; Sengupta and Zhou 2007). Then, they read negative news regarding a fictitious brand named SH Apparel. We used a fictitious brand to rule out alternative explanations based on existing brand associations. The article contained some background information about the brand as well as negative news about child exploitation in the production line of a third-world country. After they read the news about SH Apparel, participants in the low information load condition were exposed to two consumer commentaries, including one positive and one negative commentary. Participants in the high information load condition were exposed to 10 consumer commentaries, which included five positive and five negative commentaries about SH Apparel. Results revealed a significant information load by regulatory focus interaction ($F(1, 124) = 17.68, p < .001$). Consistent with hypothesis 1b, under high information load, promotion-focused (vs. prevention-focused) participants expressed higher brand evaluations (3.93 vs. 3.44, $p < .05$). Consistent with hypothesis 2b, under low information load, prevention-focused (vs. promotion-focused) participants expressed higher brand evaluations (4.04 vs. 3.42, $p < .05$).

An alternative explanation may be that individuals focus on information consistent with their regulatory focus in both high and low information load conditions, and since there are more positive commentaries under high information load compared to under low information load, promotion-focused individuals have higher evaluations under high (vs. low) information load. Moreover, since there are more negative commentaries in the high (vs. low) information load condition, prevention-focused individuals have higher evaluations under low (vs. high) information load. To rule out this alternative explanation, we conducted study 2, in which information load does not confound with the number of pos-

itive and negative attributes. Moreover, previous research shows that functionally relevant messages enhance the perceived quality and persuasiveness of the message arguments, which in turn influence persuasion (Lavine and Snyder 1996). In study 2, we also address the alternative explanations of message quality (Lavine and Snyder 1996) and involvement (Wang and Lee 2006).

STUDY 2

Pretest

The positive, negative, and neutral commentaries were pretested with 30 participants on 5-point bipolar scales. The results of the pretest showed that participants rated providing a regular warranty, having a standard capacity, offering standard compatibility, and providing a headphone as neutral attributes of MP3 players ($M_{\text{warranty}} = 3.11, M_{\text{capacity}} = 2.99, M_{\text{compat}} = 3.05, M_{\text{headphone}} = 3.15$). Moreover, consistent with study 1, participants rated lack of additional input and output jacks as a negative attribute of the MP3 player ($M_{\text{jacks}} = 2.14$) and being energy efficient as a positive attribute of the MP3 player ($M_{\text{energy}} = 3.93$). There were no significant differences in terms of attribute importance ratings.

Participants and Procedure

Ninety individuals participated in a computer-based, nationwide U.S. e-panel. The procedures used were similar to study 1. Participants were told that they would be participating in several studies that inquire about their life experiences, preferences, and some information about themselves. Participants first received the regulatory focus manipulation. Then, they were told that they would read some information regarding a newly introduced MP3 player from a (fictitious) brand and express their opinions about it. Next, the information load manipulation, which included consumer commentaries, was provided. The dependent variables and control measures were then administered. At the end of the experiment, participants responded to a suspicion probe and indicated what they thought the purpose of the study was. Finally, participants were thanked and debriefed.

Independent Variables

Regulatory Focus. The regulatory focus manipulation was the same manipulation used in study 1.

Information Load. All participants read the same scenario as in study 1. Participants then read either two or six consumer commentaries from *Consumer Comments Magazine* (see table A2 for consumer commentaries). In both information load conditions, half of the participants first read a negative commentary followed by a positive commentary, and the other half first read a positive commentary followed by a negative commentary. Moreover, there were equal numbers of positive and negative commentaries (e.g., one positive and one negative) in both conditions. Under the high information load condition, participants also read the neutral commentaries.

Dependent Variables

Brand Evaluations. Participants indicated their overall attitude toward CYLN on the following 7-point bipolar scales: “very negative” versus “very positive,” “not at all favorable” versus “very favorable,” “very bad” versus “very good,” and “very undesirable” versus “very desirable.” These items were averaged to form an evaluation index ($\alpha = .95$).

Selective Information Processing. Participants indicated the extent to which they relied on negative and positive commentaries in forming their overall evaluations on two 5-point scales (1 = not at all, and 5 = very much). We calculated an index of relative reliance on positive (vs. negative) information by taking the difference between reliance on positive versus negative information. Moreover, participants indicated the extent to which they knew products of CYLN on a 5-point scale (1 = not at all, and 5 = a lot).

Manipulation Checks and Other Measures. As a check for regulatory focus manipulation (Pham and Avnet 2004), participants indicated the extent to which they would prefer to “do what is right versus do whatever I want,” “take a trip around the world versus pay back my loans,” and “go wherever my heart takes me versus do whatever it takes for me to keep my promises” on three 5-point bipolar scales.

As a check for information load manipulation, participants rated whether the number of commentaries was very low or very high on a 5-point bipolar scale. Participants also rated whether the commentaries from *Consumer Comments Magazine* were reliable on a 5-point scale. Moreover, consistent with previous research (Friedman and Förster 2001), participants indicated the extent to which they enjoyed reading commentaries (1 = not at all, and 5 = very much). Furthermore, participants rated the extent to which they were involved in reading the reviews provided for CYLN on the following 5-point bipolar scales: “not at all involved” versus “very involved,” “not at all interested” versus “very interested,” “skimmed them quickly” versus “read them carefully,” and “paid little attention” versus “paid a lot of at-

ention” (Wang and Lee 2006). These items were averaged to form an involvement index ($\alpha = .87$). Participants also rated the quality of the reviews on the following 5-point bipolar scales: “not at all convincing” versus “very convincing” and “not at all persuasive” versus “very persuasive” (Lavine and Snyder 1996). These items were averaged to form a message quality index ($\alpha = .91$).

Results

All dependent variables were analyzed using a 2 (information load: high, low) \times 2 (regulatory focus: promotion, prevention) between-subjects design.

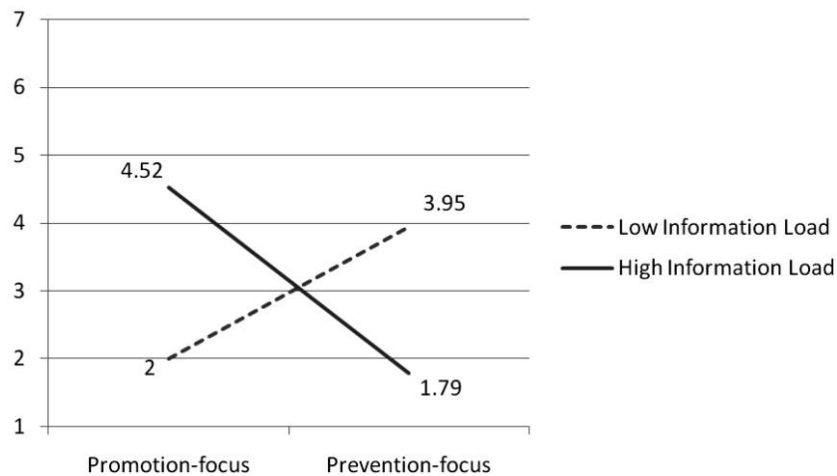
Manipulation Checks and Other Measures. As a check for regulatory focus manipulation, participants in the promotion (vs. prevention) focus condition indicated that they do whatever they want to more than they do what is right (2.65 vs. 1.46; $F(1, 86) = 13.64, p < .001$), take a trip around the world more than pay back their loans (3.85 vs. 2.40; $F(1, 86) = 4.65, p < .05$), and go wherever their heart takes them more than do whatever it takes to keep their promises (3.96 vs. 3.25; $F(1, 86) = 5.15, p < .05$). No other effects were significant. As a check for information load manipulation, participants in the low (vs. high) information load condition indicated that the number of commentaries was low (2.15 vs. 3.80; $F(1, 86) = 6.90, p < .05$). No other effects were significant. Moreover, the order of commentaries did not have any significant influence on our results ($p > .43$). Hence, we dropped that factor from our analyses.

Results show that participants, on average, were not knowledgeable about CYLN ($M = 1.18, SD = .45$). Moreover, participants did not differ in their perceptions of reliability ($p > .37$) of information provided by *Consumer Comments Magazine*. Task enjoyment ($p > .17$) and involvement levels ($p > .11$) did not significantly differ as a function of regulatory focus and information load. Moreover, results show that message quality does not explain our findings ($p > .21$).

Brand Evaluations. An ANOVA on the evaluation index yielded a significant regulatory focus by information load interaction ($F(1, 86) = 36.03, p < .001$). There was no main effect of regulatory focus ($p > .98$) and information load ($p > .94$). Supporting hypothesis 1b, under high information load, promotion-focused (vs. prevention-focused) participants had higher brand evaluations (4.52 vs. 1.79; $F(1, 86) = 18.19, p < .001$). Supporting hypothesis 2b, under low information load, prevention-focused (vs. promotion-focused) participants had higher brand evaluations (3.95 vs. 2.00; $F(1, 86) = 18.15, p < .001$; see fig. 2).

Selective Information Processing. An ANOVA on relative reliance on positive (vs. negative) information yielded a significant regulatory focus by information load interaction ($F(1, 86) = 55.04, p < .001$). There was no main effect of regulatory focus ($p > .95$) and information load ($p > .95$). Consistent with hypothesis 1a, under high information load, relative reliance on positive (vs. negative) information was

FIGURE 2
BRAND EVALUATIONS (STUDY 2)



greater for promotion-focused (vs. prevention-focused) participants (2.57 vs. -1.30; $F(1, 86) = 39.74, p < .001$). Moreover, consistent with hypothesis 2a, under low information load, relative reliance on positive (vs. negative) information was higher for prevention-focused (vs. promotion-focused) participants (1.75 vs. -2.09; $F(1, 86) = 27.02, p < .001$).

Mediation Analyses. To assess the extent to which relative reliance on positive (vs. negative) information mediates the effect of promotion (prevention) focus on brand evaluations under high (vs. low) information load, we conducted mediated moderation analyses (Muller et al. 2005). The interpretation of the result is that relative reliance on positive (vs. negative) information mediates the interactive effect of regulatory focus and information load on brand evaluations (see table 2 for mediated moderation analysis).

To examine the indirect effects of information load, we conducted a BC bootstrapping analysis recommended by Preacher and Hayes (2008). Bootstrapping involves the repeated extraction of samples from the data set, in which we used 5,000 samples, and the estimation of the indirect effect in each resampled data set. Results suggest that relative reliance on positive (vs. negative) information mediates the effect of promotion focus under high (vs. low) information load. Specifically, under the high information load condition, the total indirect effect through relative reliance on positive (vs. negative) information as a mediator has a 95% BC bootstrap CI of -1.46 and -0.30 with an estimate of -.73 (i.e., CI does not include zero). Furthermore, under the low information load condition, the total indirect effect through relative reliance on positive (vs. negative) information as a mediator has a 95% BC bootstrap CI of 0.11 and 0.65 with an estimate of .36 (i.e., CI does not include zero).

Discussion

Results from study 2 addressed alternative explanations and provided convergent evidence regarding the effect of regulatory focus on selective information processing. An important question remains related to the effect of existing brand associations on selective information processes. Research suggests that consumers' preexisting cognitive structure is expected to guide the interpretation and integration of any new information (Petty and Cacioppo 1986). As such, existence of a prior attitude, even if weak, may lead to consistency-based pressures in information processing (Russo, Meloy, and Medvec 1998).

We propose that individuals who have more (vs. less) favorable existing brand associations are likely to have promotion focus. These individuals have positive expectations about the target brand (Seibt and Förster 2004). Positive expectations are associated with higher purchase intentions and thus higher approach tendencies. We suggest that when approach tendencies are activated, individuals should be sensitive to gain-related (e.g., positive) information that involves the presence or absence of positive outcomes (Markman et al. 2005). In other words, for these individuals, promotion focus should be salient. In contrast, when individuals have less favorable existing brand associations, they have less favorable expectations about the target brand (Seibt and Förster 2004). Less favorable expectations are associated with lower purchase intentions and thus higher avoidance tendencies. We suggest that when avoidance tendencies are activated, individuals should be sensitive to loss-related (e.g., negative) information that involves the presence or absence of negative outcomes (Higgins and Tykocinski 1992). In other words, for these individuals, prevention focus should be salient. Hence, in study 3, we manipulate promotion (vs.

TABLE 2
STUDY 2: SUMMARY OF REGRESSIONS FOR MEDIATED MODERATION TEST

Predictor	Equation 1: Brand evaluations			Equation 2: Relative reliance on positive information			Equation 3: Brand evaluations		
	<i>B</i>	SE <i>B</i>	β	<i>B</i>	SE <i>B</i>	β	<i>B</i>	SE <i>B</i>	β
<i>X</i> , regulatory focus	6.83	.37	2.68***	14.14	.61	2.74***	5.83	.97	2.29
<i>M</i> ₀ , information load	6.70	.38	2.63***	14.33	.61	2.78***	5.42	1.02	2.13
<i>X</i> <i>M</i> ₀ interaction	-4.58	.24	-3.79***	-9.68	.39	-3.95***	-.03	.08	-.08 ^a
<i>M</i> ₁ , relative reliance on positive information							3.76	.69	3.11***
<i>M</i> ₁ <i>M</i> ₀ interaction							.08	.09	.27

NOTE.—Bold indicates that β needed to be significant to qualify for a mediated moderation.

^a β needed to be nonsignificant to qualify for a full mediated moderation.

*** $p \leq .001$.

prevention) focus orientation by priming positive (vs. negative) brand associations.

STUDY 3

Pretests

Several pretests were conducted before the final study to choose electronics brands with more (vs. less) favorable existing associations. Forty-six participants rated their knowledge of and familiarity with several brand names (e.g., Sony, Sanyo, Hitachi, Samsung, Sylvania, and Hamilton) on 5-point scales. They indicated their overall evaluations (e.g., unfavorable/favorable, bad/good, negative/positive) of these brands on 5-point bipolar scales. Moreover, they rated several attributes (e.g., sound quality, energy efficiency) of these brands on 5-point scales (1 = very negative, and 5 = very positive). We chose Sony and Sylvania as the target brands with which participants had more (vs. less) favorable existing associations. First, participants did not differ in knowledge of (3.81 vs. 3.50) and familiarity with (4.08 vs. 4.06) these two brands. Second, participants had more (less) favorable evaluations of Sony (Sylvania; 4.19 vs. 3.42, $p < .01$). Third, Sony was rated significantly higher on picture quality (4.28 vs. 3.67, $p < .05$), sound quality (4.25 vs. 3.42, $p < .05$), remote-control options (4.25 vs. 3.50, $p < .05$), design (4.14 vs. 3.44, $p < .05$), ease of use (4.25 vs. 3.53, $p < .05$), state-of-art technology (4.22 vs. 3.11, $p < .05$), energy efficiency (3.89 vs. 3.08, $p < .05$), and advanced auto features (4 vs. 3.28, $p < .05$).

In a second pretest to select attributes, 40 participants rated the extent to which several attributes (e.g., picture quality, sound quality) are typical of electronics products of Sony and Sylvania brands. Participants rated these attributes as equally typical of both brands (all $M > 3.6$). Then, participants rated how important these attributes are. Six attributes (i.e., picture quality, energy efficiency, remote control, ease of use, award-winning design, and advanced automatic features) were selected on the basis of the pretest. Participants rated these attributes as equally important (all $M > 4$).

To investigate whether more (less) favorable brand associations activate promotion (prevention) focus, 36 individuals participated in the computer-based, nationwide U.S.-based e-

panel. Participants indicated their overall evaluations of Sony (Sylvania) on four 5-point bipolar scales (“bad vs. good,” “unfavorable vs. favorable,” “negative vs. positive,” and “undesirable vs. desirable”). These items were averaged to form an evaluation index ($\alpha = .89$). We then assessed participants’ regulatory focus orientation by using the 18-item scale developed by Lockwood, Jordan, and Kunda (2002). Nine items tapped into promotion focus orientation (e.g., I see myself as someone who is primarily striving to reach my “ideal self”—to fulfill my hopes, wishes, and aspirations), and nine items tapped into prevention focus orientation (e.g., I see myself as someone who is primarily striving to become the self I “ought” to be—to fulfill my duties, responsibilities, and obligations). We developed separate promotion and prevention focus scores. Then, we subtracted the prevention focus score from the promotion focus score to develop a dominant regulatory focus score (e.g., negative scores indicate a prevention orientation, and positive scores indicate a promotion orientation). Consistent with the pretests, participants had more (less) favorable evaluations of Sony (Sylvania; 4.55 vs. 3.33; $F(1, 34) = 43.32$, $p < .001$). Importantly, results also show that participants exposed to Sony (Sylvania) were more likely to be promotion (prevention) focused (1.75 vs. -3.12; $F(1, 34) = 4.42$, $p < .05$). The results support our use of prior brand associations as an instrument to manipulate promotion (vs. prevention) focus.

Participants and Procedure

Ninety-seven individuals participated in the computer-based, nationwide U.S.-based e-panel. They were randomly assigned to conditions in a 2 (information load: high, low) \times 2 (regulatory focus: promotion, prevention) between-subjects design.

Participants read information about Sony (Sylvania) that was recently featured on Epinions.com. The information also contained information load manipulation. Then, dependent and control measures were administered. Furthermore, regulatory focus (Lockwood et al. 2002) and demographics were measured. Finally, participants were thanked and debriefed.

Independent Variables

Regulatory Focus. Participants in the promotion (prevention) focus condition wrote down what they think about Sony (Sylvania) for 2 minutes.

Information Load. Participants were told that they would read information about Sony (Sylvania) that was recently featured on Epinions.com. Participants in the high information load condition read six consumer commentaries, which included three positive and three negative commentaries about Sony (Sylvania). Participants in the low information load condition read two consumer commentaries, which included one positive and one negative commentary about Sony (Sylvania). In both information load conditions, half of the participants first read a negative commentary followed by a positive commentary, and the other half first read a positive commentary followed by a negative commentary.

All participants read the following statement (see table A3 for consumer commentaries): “Announcement of a Defect in Sony (Sylvania) Sound System. Sony (Sylvania) announced a defect in its Dolby® DTS® sound system. Sony’s (Sylvania’s) Dolby Digital® DTS® sound system does not provide the powerful surround sound advertised. The problem is with the front speakers, which do not work properly. The other three speakers and the subwoofer lack sufficient power to disguise the problem of Sony’s (Sylvania’s) front speakers.”

Dependent Variables

Brand Evaluations. Participants evaluated Sony (Sylvania) on the following 7-point bipolar scales: “very negative” versus “very positive,” “not at all favorable” versus “very favorable,” “very bad” versus “very good,” and “very undesirable” versus “very desirable.” These items were averaged to form an evaluation index ($\alpha = .98$).

Selective Information Processing. Participants answered questions to indicate the extent to which they relied on negative and positive commentaries in forming their overall evaluation of Sony (Sylvania) on two separate 5-point scales (1 = not at all, and 5 = very much). We calculated a relative reliance on a positive (vs. negative) information score by taking the difference between reliance on positive versus negative information.

Manipulation Checks and Other Measures. As a check for information load manipulation, participants rated the extent to which they perceived the number of commentaries as very low or very high on a 5-point bipolar scale. Participants also indicated the extent to which the commentaries provided were reliable on three 5-point scales. As in previous studies, participants rated the extent to which they enjoyed considering each commentary and would be interested in reading additional information about Sony (Sylvania; 1 = not at all, and 5 = very much). Previous research investigated the moderating role of consumer commitment in evaluations of brands with negative publicity (Ahluwalia,

Burnkrant, and Unnava 2000). Therefore, we also measured consumers’ commitment to Sony (Sylvania) using the following statements on 5-point scales: “If Sony (Sylvania) was not available at the store, it would make little difference to me if I had to choose another brand,” “I consider myself highly loyal to Sony (Sylvania),” and “When another brand is on sale, I will generally purchase it rather than Sony (Sylvania).” These items were averaged to form a commitment index ($\alpha = .71$).

Results

All dependent variables were analyzed using a 2 (information load: high, low) \times 2 (regulatory focus: promotion, prevention) between-subjects design.

Manipulation Checks and Other Measures. As a check for information load manipulation, participants in the low (vs. high) information load condition indicated that the number of consumer commentaries was low (2.55 vs. 3.21; $F(1, 93) = 4.42, p < .05$). No other effects were significant. Moreover, the order of commentaries did not have any significant influence on our results ($p > .56$). Hence, we dropped that factor from our analyses.

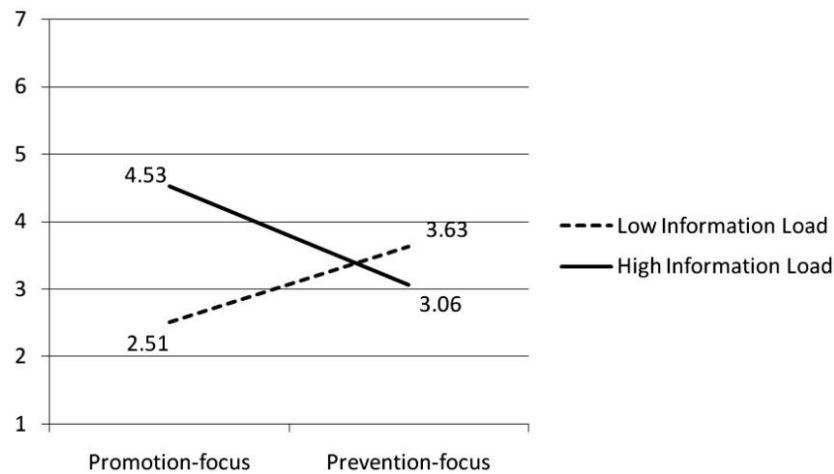
Participants did not differ in their perceptions of reliability ($p > .22$) of information provided by Epinions.com. Moreover, task enjoyment ($p > .84$) and involvement levels ($p > .08$) did not significantly differ as a function of regulatory focus and information load, and participants did not differ in their commitment to Sony (Sylvania; $p > .14$).

Brand Evaluations. An ANOVA on the evaluation index yielded significant regulatory focus by information load interaction ($F(1, 93) = 24.26, p < .001$). There was no main effect of regulatory focus ($p > .89$) and information load ($p > .73$). Specifically, supporting hypothesis 1b, under high information load, promotion-focused (vs. prevention-focused) participants had higher brand evaluations (4.53 vs. 3.06; $F(1, 93) = 14.35, p < .001$). Supporting hypothesis 2b, under low information load, prevention-focused (vs. promotion-focused) participants had higher brand evaluations (3.63 vs. 2.51; $F(1, 93) = 9.91, p < .05$; see fig. 3).

Selective Information Processing. An ANOVA on relative reliance on positive (vs. negative) information yielded a significant regulatory focus by information load interaction ($F(1, 93) = 5.14, p < .05$). There was no main effect of regulatory focus ($p > .57$) and information load ($p > .84$). Consistent with hypothesis 1a, under high information load, relative reliance on positive (vs. negative) information was greater for promotion-focused (vs. prevention-focused) participants (2.65 vs. -1.41 ; $F(1, 93) = 9.74, p < .05$). Moreover, consistent with hypothesis 2a, under low information load, relative reliance on positive (vs. negative) information was higher for prevention-focused (vs. promotion-focused) participants (1.62 vs. -0.24 ; $F(1, 93) = 5.02, p < .05$).

Mediation Analyses. To assess the extent to which relative reliance on positive (vs. negative) information medi-

FIGURE 3
BRAND EVALUATIONS (STUDY 3)



ates the effect of promotion (prevention) focus on brand evaluations under high (vs. low) information load, we conducted mediated moderation analyses (Muller et al. 2005). The interpretation of the result is that relative reliance on positive (vs. negative) information mediates the interactive effect of regulatory focus and information load on brand evaluations (see table 3 for mediated moderation analysis).

To examine the indirect effects of information load, we conducted a BC bootstrapping analysis recommended by Preacher and Hayes (2008). Consistent with previous studies, results suggest that under the high information load condition, the total indirect effect through relative reliance on positive (vs. negative) information as a mediator has a 95% BC bootstrap CI of -1.36 and -0.23 with an estimate of $-.66$ (i.e., CI does not include zero). Furthermore, under the low information load condition, the total indirect effect through relative reliance on positive (vs. negative) information as a mediator has a 95% BC bootstrap CI of 0.68 and 1.45 with an estimate of 1.20 (i.e., CI does not include zero).

Discussion

Results of this study show that prior brand associations may activate promotion and prevention focus orientation. Moreover, results support our hypotheses that under high information load, relative reliance on positive (vs. negative) information is greater for promotion-focused (vs. prevention-focused) individuals and under low information load, relative reliance on positive (vs. negative) information is greater for prevention-focused (vs. promotion-focused) individuals. Furthermore, we show that relative reliance on positive (vs. negative) information mediates the effect of regulatory focus on brand evaluations. Consequently, the results show that promotion- (prevention-) focused individ-

uals have higher (lower) brand evaluations under high (vs. low) information load.

In this study, we tested our predictions with a product category that may inherently activate promotion focus. In study 4, we picked a product category (e.g., insurance), which may inherently activate prevention focus, for robustness. Moreover, previous research (Lee and Aaker 2004) suggests that enhanced processing fluency leads to more favorable brand evaluations. In study 4, we also address the alternative explanation of processing fluency (Lee and Aaker 2004).

STUDY 4

Participants and Procedure

Seventy-eight individuals participated in the computer-based, nationwide U.S.-based e-panel. They were randomly assigned to conditions in a 2 (information load: high, low) \times 2 (regulatory focus: promotion, prevention) between-subjects design.

Participants read information about AMICA (Allstate) that was recently featured in *Business Week*. Then, they read consumer commentaries about AMICA (Allstate) that were featured on FreeAdvice (<http://insurance.freeadvice.com>). Dependent and control measures were administered next. Furthermore, regulatory focus (Lockwood et al. 2002) and demographics were measured. Finally, participants were thanked and debriefed.

Independent Variables

Regulatory Focus. Consistent with study 3, we manipulated promotion (prevention) focus by priming more (less) favorable brand associations. Participants in the promotion

TABLE 3
STUDY 3: SUMMARY OF REGRESSIONS FOR MEDIATED MODERATION TEST

Predictor	Equation 1: Brand evaluations			Equation 2: Relative reliance on positive information			Equation 3: Brand evaluations		
	<i>B</i>	SE <i>B</i>	β	<i>B</i>	SE <i>B</i>	β	<i>B</i>	SE <i>B</i>	β
<i>X</i> , regulatory focus	3.87	.83	1.26***	1.67	.84	.60***	4.07	.85	1.32
<i>M</i> ₀ , information load	4.74	.84	1.53***	1.89	.85	.68***	5.03	.87	1.63
<i>X</i> <i>M</i> ₀ interaction	-2.75	.56	-1.84***	-1.28	.56	-.96*	-.43	.31	-.38 ^a
<i>M</i> ₀ , relative reliance on positive information							2.97	.58	1.99***
<i>M</i> ₀ <i>M</i> ₀ interaction							.36	.22	.46

NOTE.—Bold indicates that β needed to be significant to qualify for a mediated moderation.

^a β needed to be nonsignificant to qualify for a full mediated moderation.

* $p \leq .05$.

*** $p \leq .001$.

(prevention) focus read the following scenario: “‘2010 National Insurance Study’ revealed that AMICA (Allstate) is on the list of 5 best (worst) insurance companies based on customer satisfaction. Customers are very satisfied (dissatisfied) with AMICA’s (Allstate’s) services.” After participants read the scenario, they wrote down what they think about AMICA (Allstate) for 2 minutes.

Information Load. Participants were told that they would read information about AMICA (Allstate) that was recently featured in an article in *Business Week*. All participants read the following information: “Recently, two customers accused AMICA (Allstate) of unnecessarily delaying its claims process, denying valid claims or offering a lower amount than what should actually be paid and adamantly defending claims that should have simply been paid or settled.”

Then, participants read consumer commentaries about AMICA (Allstate) that are featured on FreeAdvice. Participants in the high information load condition read six consumer commentaries, which included one positive, one negative, and four neutral commentaries about AMICA (Allstate). Participants in the low information load condition read two consumer commentaries, which included one positive and one negative commentary about AMICA (Allstate). The positive, negative, and neutral consumer commentaries were tested on 5-point bipolar scales. The results showed that participants rated being slow to settle a claim as a negative commentary ($M_{\text{slow}} = 2.04$) and rated paying claims quickly as a positive commentary ($M_{\text{fast}} = 4.08$). Moreover, participants rated offering a standard variety of insurance products, being available in almost all states, having a toll-free number to call 24 hours a day, and having basic liability coverage as neutral consumer commentaries ($M_{\text{standard}} = 3.10$, $M_{\text{avail}} = 3.15$, $M_{\text{tollfree}} = 3.05$, $M_{\text{basic}} = 2.95$). There were no significant differences in terms of attribute importance ratings (all $M > 4$).

In both information load conditions, half of the participants first read a negative commentary followed by a positive commentary, and the other half first read a positive commentary followed by a negative commentary (see table A4 for consumer commentaries). In the high information

load condition, participants also read the neutral consumer commentaries.

Dependent Variables

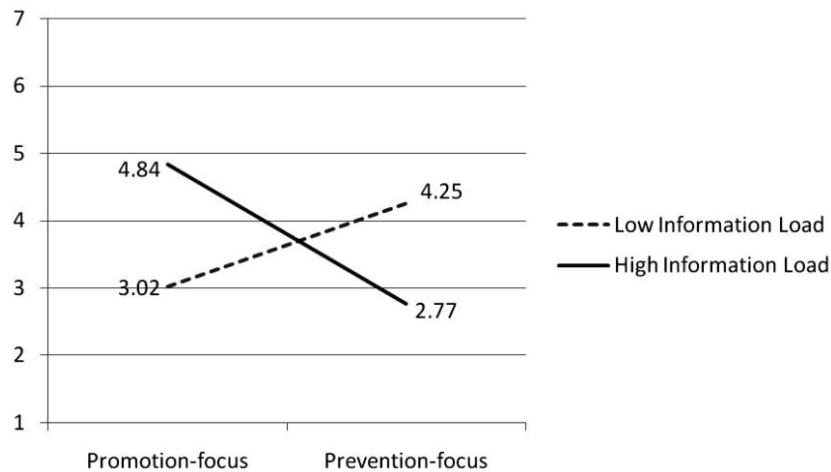
Brand Evaluations. Participants evaluated AMICA (Allstate) on the following 7-point bipolar scales: “very negative” versus “very positive,” “not at all favorable” versus “very favorable,” “very bad” versus “very good,” and “very undesirable” versus “very desirable.” These items were averaged to form an evaluation index ($\alpha = .98$).

Selective Information Processing. Participants answered questions to indicate the extent to which they relied on negative and positive commentaries in forming their overall evaluation of AMICA (Allstate) on two 5-point scales (1 = not at all, and 5 = very much). We calculated a relative reliance on positive (vs. negative) information score by taking the difference between reliance on positive versus negative information.

Manipulation Checks and Other Measures. As a check for information load manipulation, participants indicated their level of agreement with the statement “There was a lot of information to process” on a 5-point scale (1 = strongly disagree, and 5 = strongly agree). Moreover, they rated the amount of information provided in the consumer commentaries as very little or very much on a 5-point bipolar scale. As in previous studies, participants also rated whether the number of commentaries was very low or very high on a 5-point bipolar scale. These three measures were averaged to form an information load manipulation check index ($\alpha = .88$). As a check for regulatory focus manipulation, participants completed the regulatory focus orientation scale developed by Lockwood et al. (2002; $\alpha = .87$).

Participants also indicated the extent to which the commentaries provided were reliable, on three 5-point scales. Moreover, participants rated the information in the consumer commentaries in terms of its ease of processing (1 = difficult to process, and 5 = easy to process) and comprehensibility (1 = difficult to understand, and 5 = easy to understand). These two measures were averaged to form a

FIGURE 4
BRAND EVALUATIONS (STUDY 4)



processing fluency index ($\alpha = .94$). Participants were also asked to indicate on a four-item scale how involved they were while processing the information in the consumer commentaries (1 = not at all involved, not at all interested, skimmed it quickly, paid little attention, and 5 = very involved, very interested, read it carefully, paid a lot of attention) on four bipolar scales. These four measures were averaged to form an involvement index ($\alpha = .88$). Participants also rated the quality of the reviews on the following 5-point bipolar scales: “not at all convincing” versus “very convincing” and “not at all persuasive” and “very persuasive” (Lavine and Snyder 1996). These two measures were averaged to form a message quality index ($r = .87$).

Results

All dependent variables were analyzed using a 2 (information load: high, low) \times 2 (regulatory focus: promotion, prevention) between-subjects design.

Manipulation Checks and Other Measures. As a check for information load manipulation, participants in the low (vs. high) information load condition scored lower in the information load manipulation check index (2.13 vs. 2.87; $F(1, 74) = 5.56, p < .05$). No other effects were significant. As a check for regulatory focus manipulation, participants in the AMICA (Allstate) condition scored higher on the regulatory focus orientation scale (2.36 vs. -1.74 ; $F(1, 74) = 4.34, p < .05$). No other effects were significant. Moreover, the order of commentaries did not have any significant influence on our results ($p > .23$). Hence, we dropped that factor from our analyses.

Participants did not differ in their perceptions of reliability of information provided by FreeAdvice ($p > .62$). Moreover, message quality ($p > .85$), involvement ($p > .73$), and ease

of processing ($p > .93$) did not significantly differ as a function of regulatory focus and information load.

Brand Evaluations. An ANOVA on the evaluation index yielded significant regulatory focus by information load interaction ($F(1, 74) = 11.92, p < .001$). There was no main effect of regulatory focus ($p > .96$) and information load ($p > .91$). Specifically, supporting hypothesis 1b, under high information load, promotion-focused (vs. prevention-focused) participants had higher brand evaluations (4.84 vs. 2.77; $F(1, 74) = 5.88, p < .05$). Supporting hypothesis 2b, under low information load, prevention-focused (vs. promotion-focused) participants had higher brand evaluations (4.25 vs. 3.02; $F(1, 74) = 6.12, p < .05$; see fig. 4).

Selective Information Processing. An ANOVA on relative reliance on positive (vs. negative) information yielded a significant regulatory focus by information load interaction ($F(1, 74) = 53.59, p < .001$). There was no main effect of regulatory focus ($p > .52$) and information load ($p > .86$). Consistent with hypothesis 1a, under high information load, relative reliance on positive (vs. negative) information was greater for promotion-focused (vs. prevention-focused) participants (2.79 vs. -2.67 ; $F(1, 74) = 26.81, p < .001$). Moreover, consistent with hypothesis 2a, under low information load, relative reliance on positive (vs. negative) information was higher for prevention-focused (vs. promotion-focused) participants (2.36 vs. -2.41 ; $F(1, 74) = 25.91, p < .001$).

Mediation Analyses. To assess the extent to which relative reliance on positive (vs. negative) information mediates the effect of promotion (prevention) focus on brand evaluations under high (vs. low) information load, we conducted mediated moderation analyses (Muller et al. 2005). The interpretation of the result is that relative reliance on

positive (vs. negative) information mediates the interactive effect of regulatory focus and information load on brand evaluations (see table 4 for mediated moderation analysis).

To examine the indirect effects of information load, we conducted a BC bootstrapping analysis recommended by Preacher and Hayes (2008). Consistent with previous studies, results suggest that under the high information load condition, the total indirect effect through relative reliance on positive (vs. negative) information as a mediator has a 95% BC bootstrap CI of -2.96 and -1.36 with an estimate of -1.15 (i.e., CI does not include zero). Furthermore, under the low information load condition, the total indirect effect through relative reliance on positive (vs. negative) information as a mediator has a 95% BC bootstrap CI of 1.13 and 2.96 with an estimate of 1.84 (i.e., CI does not include zero).

Discussion

Results of this study support our hypotheses that under high information load, relative reliance on positive (vs. negative) information is greater for promotion-focused (vs. prevention-focused) individuals. In contrast, relative reliance on positive (vs. negative) information is greater for prevention-focused (vs. promotion-focused) individuals under low information load. Furthermore, we show that relative reliance on positive (vs. negative) information mediates the effect of regulatory focus on brand evaluations. Consequently, the results show that promotion- (prevention-) focused individuals have higher (lower) brand evaluations under high (vs. low) information load. Furthermore, these results point out that our findings are robust across different product categories, which vary in terms of their promotion-focused and prevention-focused orientation.

GENERAL DISCUSSION

The objective of the current research is to examine the effect of regulatory focus on selective information processes. In a series of four studies, we show that information load moderates the effect of regulatory focus on selective information processes. Specifically, we demonstrate that under high information load, relative reliance on positive (vs. negative)

information is greater for promotion-focused (vs. prevention-focused) individuals. Moreover, under low information load, relative reliance on positive (vs. negative) information is greater for prevention-focused (vs. promotion-focused) individuals. We also show that prior brand associations may be used to prime promotion (vs. prevention) focus orientation.

Our research contributes to the extant literature in several ways. First, we demonstrate the interactive effect of information load and regulatory focus on selective information processes. Past neuroscientific research showed that promotion-focused individuals are more likely to rely on positive stimuli and that prevention-focused individuals are more likely to rely on negative stimuli on evaluations (Cunningham et al. 2005). We empirically support this finding and provide an explanation for how individuals selectively rely on information when their capacity is limited or available (e.g., when individuals are under high or low information load) for information processing.

Second, we extend the literature on negative publicity by showing that information load and regulatory focus have an interactive effect on brand evaluations for existing brands as well as for new brands. Extant research demonstrates a negativity effect because negative information is more diagnostic or informative than positive information (Maheswaran and Meyers-Levy 1990). We extend these findings by empirically showing that under high information load, positive information is more diagnostic for promotion-focused individuals, and negative information is more diagnostic for prevention-focused individuals.

Third, we extend the branding literature by demonstrating that more (less) favorable existing brand associations activate promotion (prevention) focus. This is particularly important because activation of promotion (vs. prevention) focus has a significant impact on consumer information processing and judgments (Molden, Lee, and Higgins 2008). Recent research shows automatic effects of brand exposure on motivated behavior (Fitzsimons et al. 2008). Specifically, in Fitzsimons et al.'s (2008) studies, participants primed with Apple logos behaved more creatively than IBM-primed participants and controls, and Disney-primed participants behaved more honestly than E! participants. Our research adds

TABLE 4

STUDY 4: SUMMARY OF REGRESSIONS FOR MEDIATED MODERATION TEST

Predictor	Equation 1: Brand evaluations			Equation 2: Relative reliance on positive information			Equation 3: Brand evaluations		
	<i>B</i>	SE <i>B</i>	β	<i>B</i>	SE <i>B</i>	β	<i>B</i>	SE <i>B</i>	β
<i>X</i> , regulatory focus	3.98	1.24	1.15*	15.69	.73	2.89***	7.43	3.61	2.15
<i>Mo</i> , information load	3.73	1.17	1.07*	15.43	.69	2.83***	7.91	3.28	2.27
<i>XMo</i> interaction	-2.61	.76	-1.70*	-10.23	.44	-4.26***	-.19	.64	-.30 ^a
<i>Me</i> , relative reliance on positive information							5.38	2.17	3.51*
<i>MeMo</i> interaction							.32	.40	.79

NOTE.—Bold indicates that β needed to be significant to qualify for a mediated moderation.

^a β needed to be nonsignificant to qualify for a full mediated moderation.

* $p \leq .05$.

*** $p \leq .001$.

to this body of literature pointing to brand priming effects on behavior by demonstrating that participants primed with a more favorable brand have promotion focus and that participants primed with a less favorable brand have prevention focus. Hence, automatic effects of brand exposure not only are limited to behavioral outcomes but can also be extended to motivational orientations.

The current research also contributes to motivation and information-processing literature. Whereas prior research has examined decision strategies depending on information quantity (Fischer et al. 2005, 2008), the current research advances previous research by demonstrating the moderating role of information load in the effect of regulatory focus on selective exposure processes. In this regard, our research extends the work of Fischer et al. (2008), which demonstrated an impact of information quantity on information selection only. Our findings also add to the growing literature on regulatory focus in consumer behavior (Crowe and Higgins 1997; Higgins 1997; Jain et al. 2007; Kirmani and Zhu 2007), which demonstrated explanatory power of regulatory focus in different contexts. Furthermore, this research extends the literature in regulatory fit by suggesting that in addition to persuasive messages that fit individuals' regulatory orientation on attitudes (Wang and Lee 2006), the amount of information also influences the effect of regulatory orientation on attitudes. Specifically, when information load is high, individuals tend to rely more on information consistent with their regulatory focus. In contrast, under low information load, individuals might also selectively process and rely on information that is inconsistent with their regulatory orientation.

Our findings have important substantive implications, as well. For example, when a brand that has favorable brand associations (e.g., Sony) experiences a problem due to a product failure or a corporate social-responsibility issue, managers should not only focus on how to announce this bad news to the public but also be concerned about the subsequent consumer commentaries. Specifically, brands with highly favorable associations may benefit from many commentaries. In contrast, brands with less favorable associations are likely to benefit from fewer commentaries.

Another implication of our article concerns the type of responses managers may prepare when there is a problem with the brand. For example, if an unknown brand experiences a problem, it may be useful to prepare print ads or commercials that activate promotion focus (e.g., by stressing consumer hopes and aspirations for the future), especially if the managers anticipate that consumers are motivated to share their views in online forums or in other contexts. By doing so, managers may eliminate the negativity effect for some consumers, which may lead to higher brand evaluations.

Several other potential lines of inquiry emerge from our findings. In this article, we focused only on a particular aspect of information load (i.e., number of commentaries). However, source characteristics, information length, and style may also moderate the effect of information load. Future research should investigate the moderating effect of

other such aspects on evaluations. One limitation of this research is that we included an equal number of positive and negative commentaries in our studies. Future research may investigate how results demonstrated here may change when consumers are exposed to positive or negative commentaries that are not balanced. Another area for future research concerns corporate responses to negative publicity. It would be interesting to investigate whether the effects of information load on brand evaluations change, depending on a brand's response to negative publicity. We believe that our results should also extend to the positive publicity context. However, this is an empirical question, and future research can examine the effect of regulatory focus on selective information processing in the context of positive publicity.

APPENDIX

TABLE A1

CONSUMER COMMENTARIES (STUDY 1)

<i>Consumer Comments Magazine,</i> September 2010	
Low information load:	
Commentary 1	I think the MP3 player is highly energy efficient.
Commentary 2	It does not have additional input/output jacks.
High information load:	
Commentary 1	I think the MP3 player is highly energy efficient.
Commentary 2	It does not have additional input/output jacks.
Commentary 3	It has an award-winning design.
Commentary 4	It doesn't have advanced automatic features.
Commentary 5	I think the MP3 player delivers high-quality sound.
Commentary 6	It is also difficult to use this MP3 player.

TABLE A2

CONSUMER COMMENTARIES (STUDY 2)

<i>Consumer Comments Magazine,</i> September 2010	
Low information load:	
Commentary 1	I think the MP3 player is highly energy efficient.
Commentary 2	It does not have additional input/output jacks.
High information load:	
Commentary 1	I think the MP3 player is highly energy efficient.
Commentary 2	It does not have additional input/output jacks.
Commentary 3	It provides a regular warranty.
Commentary 4	The capacity is standard.
Commentary 5	It comes with a headphone.
Commentary 6	It offers standard compatibility, supporting basic file formats.

TABLE A3

CONSUMER COMMENTARIES (STUDY 3)

Consumer review	
Low information load:	
Written August 23, 2010:	
Pros	I think the other speakers are working properly. It is not very important if the front speaker is working or not.
Cons	None
Bottom line	The problem with the sound system is not bad enough to worry about!
Written August 25, 2010:	
Pros	None
Cons	I believe that the problem with the front speakers hurts the sound system a lot.
Bottom line	The sound system is not working properly.
High information load:	
Written August 23, 2010:	
Pros	I think the other speakers are working properly. It is not very important if the front speaker is working or not.
Cons	None
Bottom line	The problem with the sound system is not bad enough to worry about!
Written August 25, 2010:	
Pros	None
Cons	I believe that the problem with the front speakers hurts the sound system a lot.
Bottom line	The sound system is not working properly.
Written August 25, 2010:	
Pros	None
Cons	I use this brand a lot. The problem with the Dolby Digital® DTS® sound system is very bad. The front speaker is not working at all.
Bottom line	There is a problem with the sound system.
Written September 1, 2010:	
Pros	The sound system is not very bad. I use the front speakers. There may be a problem, because Sony announced that. But I think the sound system is working!
Cons	None
Bottom line	I will continue to use this brand's sound system.
Written September 2, 2010:	
Pros	I agree that the sound system is working properly. I haven't experienced any problems with the front speakers.
Cons	None
Bottom line	There is no problem with the sound system.
Written September 4, 2010:	
Pros	None
Cons	There is a problem with the front speaker. The system does not sound like a Dolby.
Bottom line	Sound system is not working properly.

TABLE A4

CONSUMER COMMENTARIES (STUDY 4)

Consumer review	
Low information load:	
Commentary 1	AMICA (Allstate) is a great company. After the contracted deductible, they paid the repair bill straight up. No hassles!
Commentary 2	They can't settle a claim in 14 months, and I am still not paid for a hit-and-run on a parked car. They lied through the whole process.
High information load:	
Commentary 1	AMICA (Allstate) is a great company. After the contracted deductible, they paid the repair bill straight up. No hassles!
Commentary 2	They can't settle a claim in 14 months, and I am still not paid for a hit-and-run on a parked car. They lied through the whole process.
Commentary 3	AMICA (Allstate) offers a standard variety of insurance products.
Commentary 4	It is available in almost all states.
Commentary 5	AMICA (Allstate) has a toll-free number to call. They are available 24 hours a day.
Commentary 6	They have a basic liability coverage.

REFERENCES

- Aaker, Jennifer L., and Angela Y. Lee (2001), "'I' Seek Pleasures and 'We' Avoid Pains: The Role of Self-Regulatory Goals in Information Processing and Persuasion," *Journal of Consumer Research*, 28 (June), 33-49.
- Ahluwalia, Rohini, Robert E. Burnkrant, and H. Rao Unnava (2000), "Consumer Response to Negative Publicity: The Moderating Role of Commitment," *Journal of Marketing Research*, 37 (May), 203-14.
- Bodenhausen, Galen V. (1988), "Stereotypic Biases in Social Decision Making and Memory: Testing Process Models of Stereotype Use," *Journal of Personality and Social Psychology*, 55 (5), 726-37.
- Bodenhausen, Galen V., and Meryl Lichtenstein (1987), "Social Stereotypes and Information-Processing Strategies: The Impact of Task Complexity," *Journal of Personality and Social Psychology*, 52 (5), 871-80.
- Clary, E. Gil, and Abraham Tesser (1983), "Reactions to Unexpected Events: The Naïve Scientist and Interpretive Activity," *Personality and Social Psychology Bulletin*, 9 (4), 609-20.
- Crowe, Ellen, and E. Tory Higgins (1997), "Regulatory Focus and Strategic Inclinations: Promotion and Prevention in Decision-Making," *Organizational Behavior and Human Decision Processes*, 69 (2), 117-32.
- Cunningham, William A., Carol L. Raye, and Marcia K. Johnson (2005), "Neural Correlates of Evaluation Associated with Promotion and Prevention Regulatory Focus," *Cognitive, Affective, and Behavioral Neuroscience*, 5 (2), 202-11.
- Festinger, Leon (1957), *A Theory of Cognitive Dissonance*, Stanford, CA: Stanford University Press.
- Fischer, Peter, Eva Jonas, Dieter Frey, and Stefan Schulz-Hardt (2005), "Selective Exposure to Information: The Impact of Information Limits," *European Journal of Social Psychology*, 35 (4), 469-92.

- Fischer, Peter, Stefan Schulz-Hardt, and Dieter Frey (2008), "Selective Exposure and Information Quantity: How Different Information Quantities Moderate Decision Makers' Preference for Consistent and Inconsistent Information," *Journal of Personality and Social Psychology*, 94 (2), 231–44.
- Fitzsimons, Grainne M., Tanya L. Chartrand, and Gavan J. Fitzsimons (2008), "Automatic Effects of Brand Exposure on Motivated Behavior: How Apple Makes You 'Think Different,'" *Journal of Consumer Research*, 35 (1), 21–35.
- Frey, Dieter (1981), "Postdecisional Preference for Decision-Relevant Information as a Function of the Competence of Its Source and the Degree of Familiarity with This Information," *Journal of Experimental Social Psychology*, 17 (1), 51–67.
- (1986), "Recent Research on Selective Exposure to Information," in *Advances in Experimental Social Psychology*, Vol. 19, ed. L. Berkowitz, New York: Academic Press, 53–73.
- Friedman, Ronald S., and Jens Förster (2001), "The Effects of Promotion and Prevention Cues on Creativity," *Journal of Personality and Social Psychology*, 81 (6), 1001–13.
- Hall, Kenji (2006), "Are Sony's Battery Woes Bound for Court?" *Business Week Online*, October 16.
- Hamilton, David L., and Jeffrey W. Sherman (1994), "Stereotypes," in *Handbook of Social Cognition*, Vol. 2, *Applications*, ed. Robert S. Wyer and Thomas K. Srull, Hillsdale, NJ: Erlbaum.
- Hart, William, Alice H. Eagly, Dolores Albarracín, and Inge Brechan (2009), "Feeling Validated versus Being Correct: A Meta-analysis of Selective Exposure to Information," *Psychological Bulletin*, 135 (4), 555–88.
- Hennig-Thurau, Thorsten, Kevin P. Gwinner, Gianfranco Walsh, and Dwayne D. Gremler (2004), "Electronic Word-of-Mouth via Consumer-Opinion Platforms: What Motivates Consumers to Articulate Themselves on the Internet?" *Journal of Interactive Marketing*, 18 (1), 38–52.
- Herbst, Moira (2008), "Starbucks' Union Blues," *Business Week Online*, December 31.
- Higgins, E. Tory (1997), "Beyond Pleasure and Pain," *American Psychologist*, 52 (12), 1280–1300.
- Higgins, E. Tory, and Daniel C. Molden (2003), "How Strategies for Making Judgments and Decisions Affect Cognition: Motivated Cognition Revisited," in *Foundations of Social Cognition: A Festschrift in Honor of Robert S. Wyer Jr.*, ed. Robert S. Wyer, Galen V. Bodenhausen, and Alan J. Lambert, Mahwah, NJ: Erlbaum, 211–35.
- Higgins, E. Tory, and Orit Tykocinski (1992), "Self-Discrepancies and Biographical Memory: Personality and Cognition at the Level of Psychological Situation," *Personality and Social Psychology Bulletin*, 18 (5), 527–35.
- Jacoby, Jacob, Donald E. Speller, and Carol Kohn Berning (1974), "Brand Choice Behavior as a Function of Information Load: Replication and Extension," *Journal of Consumer Research*, 1 (1), 33–42.
- Jain, Shailendra Pratap, Charles Lindsey, Nidhi Agrawal, and Durairaj Maheswaran (2007), "For Better or for Worse? Valenced Comparative Frames and Regulatory Focus," *Journal of Consumer Research*, 31 (1), 57–65.
- Jonas, Eva, Verena Graupmann, and Dieter Frey (2006), "The Influence of Mood on the Search for Supporting versus Conflicting Information: Dissonance Reduction as a Means of Mood Regulation?" *Personality and Social Psychology Bulletin*, 32 (1), 3–15.
- Jonas, Eva, Stefan Schulz-Hardt, Dieter Frey, and Norman Thelen (2001), "Confirmation Bias in Sequential Information Search after Preliminary Decisions: An Expansion of Dissonance Theoretical Research on Selective Exposure to Information," *Journal of Personality and Social Psychology*, 80 (4), 557–71.
- Kardes, Frank F., Maria L. Cronley, James J. Kellaris, and Steven S. Posavac (2004), "The Role of Selective Information Processing in Price-Quality Inference," *Journal of Consumer Research*, 31 (2), 368–74.
- Kirmani, Amna, and Rui (Juliet) Zhu (2007), "Vigilant against Manipulation: The Effect of Regulatory Focus on the Use of Persuasion Knowledge," *Journal of Marketing Research*, 44 (4), 688–701.
- Kunda, Ziva (1990), "The Case for Motivated Reasoning," *Psychological Bulletin*, 108 (3), 480–98.
- Lavine, Howard, and Mark Snyder (1996), "Cognitive Processing and the Functional Matching Effect in Persuasion: The Mediating Role of Subjective Perceptions of Message Quality," *Journal of Experimental Social Psychology*, 32 (6), 580–604.
- Lee, Angela, and Jennifer Aaker (2004), "Bringing the Frame into Focus: The Influence of Regulatory Fit on Processing Fluency and Persuasion," *Journal of Personality and Social Psychology*, 86 (February), 205–18.
- Liberman, Nira, Daniel C. Molden, Lorraine Chen Idson, and E. Tory Higgins (2001), "Promotion and Prevention Focus on Alternative Hypotheses: Implications for Attributional Functions," *Journal of Personality and Social Psychology*, 80 (January), 5–18.
- Lockwood, Penelope, Christian H. Jordan, and Ziva Kunda (2002), "Motivation by Positive or Negative Role Models: Regulatory Focus Determines Who Will Best Inspire Us," *Journal of Personality and Social Psychology*, 83 (4), 854–64.
- Macrae, C. Neil, Miles Hewstone, and Riana J. Griffiths (1993), "Processing Load and Memory for Stereotype-Based Information," *European Journal of Social Psychology*, 23 (1), 77–87.
- Maheswaran, Durairaj, and Joan Meyers-Levy (1990), "The Influence of Message Framing and Issue Involvement," *Journal of Marketing Research*, 27 (August), 361–67.
- Malhotra, Naresh K. (1982), "Information Load and Consumer Decision Making," *Journal of Consumer Research*, 8 (4), 419–30.
- Markman, Arthur B., Grant C. Baldwin, and W. Todd Maddox (2005), "The Interaction of Payoff Structure and Regulatory Focus in Classification," *Psychological Science*, 16 (11), 852–55.
- Molden, Daniel C., Angela Y. Lee, and E. Tory Higgins (2008), "Motivations for Promotion and Prevention," in *Handbook of Motivation Science*, ed. J. Shah and W. Gardner, New York: Guilford, 169–87.
- Monga, Ashwani, and Rui Zhu (2005), "Buyers versus Sellers: How They Differ in Their Responses to Framed Outcomes," *Journal of Consumer Psychology*, 15 (4), 325–33.
- Muller, Dominique, Charles M. Judd, and Vincent Y. Yzerbyt (2005), "When Moderation Is Mediated and Mediation Is Moderated," *Journal of Personality and Social Psychology*, 89 (December), 852–63.
- Park, Do-Hyung, Jumin Lee, and Ingoo Han (2007), "The Effect of On-Line Consumer Reviews on Consumer Purchasing Intention: The Moderating Role of Involvement," *International Journal of Electronic Commerce*, 11 (4), 125–48.
- Petty, Richard E., and John T. Cacioppo (1986), "The Elaboration Likelihood Model of Persuasion," in *Advances in Experi-*

- mental Social Psychology*, Vol. 19, ed. L. Berkowitz, New York: Academic Press, 123–205.
- Pham, Michel Tuan, and Tamar Avnet (2004), “Ideals and Oughts and the Reliance on Affect versus Substance in Persuasion,” *Journal of Consumer Research*, 30 (4), 503–18.
- Pham, Michel Tuan, and Hannah H. Chang (2010), “Regulatory Focus, Regulatory Fit, and the Search and Consideration of Choice Alternatives,” *Journal of Consumer Research*, 37 (4), 626–40.
- Pham, Michel Tuan, and E. Tory Higgins (2005), “Promotion and Prevention in Consumer Decision Making: The State of the Art and Theoretical Propositions,” in *Inside Consumption: Consumer Motives, Goals, and Desires*, ed. S. Ratneshwar and David Glen Mick, New York: Routledge.
- Preacher, Kristopher J., and Andrew F. Hayes (2008), “Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediator Models,” *Behavior Research Methods*, 40 (3), 879–91.
- Russo, J. Edward, Margaret G. Meloy, and Victoria Husted Medvec (1998), “Predecisional Distortion of Product Information,” *Journal of Marketing Research*, 35 (4), 438–52.
- Sanbonmatsu, David M., Steven S. Posavac, Frank R. Kardes, and Susan P. Mantel (1998), “Selective Hypothesis Testing,” *Psychonomic Bulletin and Review*, 5 (2), 197–220.
- Schwarz, Norbert, Dieter Frey, and Martin Kumpf (1980), “Interactive Effects of Writing and Reading a Persuasive Essay on Attitude Change and Selective Exposure,” *Journal of Experimental Social Psychology*, 16 (1), 1–17.
- Seibt, Beate, and Jens Förster (2004), “Stereotype Threat and Performance: How Self-Stereotypes Influence Processing by Inducing Regulatory Foci,” *Journal of Personality and Social Psychology*, 87 (1), 38–56.
- Sengupta, Jaideep, and Rongrong Zhou (2007), “Understanding Impulsive Eaters’ Choice Behaviors: The Motivational Influences of Regulatory Focus,” *Journal of Marketing Research*, 44 (2), 297–308.
- Wang, Jing, and Angela Y. Lee (2006), “The Role of Regulatory Focus in Preference Construction,” *Journal of Marketing Research*, 43 (February), 28–38.
- Wyer, Robert S., and Thomas K. Srull (1989), *Memory and Cognition in Its Social Context*, Hillsdale, NJ: Erlbaum.
- Yzerbyt, Vincent, and Stephanie Demoulin (2010), “Intergroup Relations,” in *Handbook of Social Psychology*, ed. Susan T. Fiske, Daniel T. Gilbert, and Gardner Lindzey, Hoboken, NJ: Wiley.

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