Responses to conflicting information in computer-mediated communication: Gender difference as an example

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Abstract
This article proposed a theoretical framework to demonstrate how and why people respond differently to conflicting information in computer-mediated communication. Using gender difference as an example, this study showed that women had greater tendencies to elaborate on positive rather than negative outcomes, whereas men had a balanced tendency to elaborate on both positive and negative outcomes. Accordingly, when they read conflicting consumer comments about initial product messages posted on weblogs, men, who elaborated on both positive and negative outcomes, experienced greater discomfort than women, who elaborated on positive outcomes to a greater degree than negative outcomes. Enhanced discomfort among men resulted in the reduced credibility and diagnosticity of the initial product information, which then led to deteriorated product evaluations.

Keywords
Communication styles, consumer-generated comments, electronic word of mouth, gender, persuasion

A recent global Internet survey, covering 47 markets in Europe, Asia, the Americas, and the Middle East, revealed that recommendations by other consumers provided the most trusted information to people deciding which products to buy or services to use

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(ACNielsen, 2007). The development of the Internet has bred more opportunity for consumers to express, seek, and pass along product information, such that 61% of consumers across the world expressed trust for consumer opinions posted online (ACNeilsen, 2007), and 59% of them have forwarded online information to colleagues, peers, family, and friends (Allsop et al., 2007). Informal online communications from other consumers about the characteristics of particular goods constitute electronic word of mouth (eWOM), which can be transmitted through various platforms, including email, online bulletin boards, online discussion forums, newsgroups, independent product review sites, social networking sites, or personal blogs. Similar to people in face-to-face settings, Internet users exchange opinions—positive or negative—about the same issue, product, or piece of information. This study explores opinions about a product on personal blogs, which people consider reliable sources of information (ACNielsen, 2007).

Consumers rate WOM as more credible and perceive themselves as more affected by it than by marketer-initiated communication (Allsop et al., 2007). Unlike marketer-initiated communication, which is predominantly positive, consumer-initiated comments provide mixed valence. However, most extant research has compared simply the relative effects of positive and negative eWOM (e.g. Sen and Lerman, 2007), without considering consumers' responses to mixed comments. In particular, individual differences appear likely to moderate the relative effectiveness of conflicting comments; this study focuses on gender as a potentially important moderator.

Furthermore, the Internet allows viewers to interact and exchange opinions about a topic, as if they were face to face. Their mediated interpersonal communication often follows social norms or communication rules, just as in interactions in offline social settings (Postmes et al., 2000). In this condition, valence, which is a salient characteristic of information, should play an important role in helping people interpret information. Language choices, in particular, help people discern communication intents (Burgoon and Miller, 1987), so positive and negative opinions should be perceived differently. In contexts in which people exchange opinions about a product, such as in personal blogs, people also likely rely on verbal content to make inferences.

The product opinion information on weblogs varies significantly in terms of its valence (Tan et al., 2011), regardless of whether unethical advertisers actually pay bloggers to post positive reviews or comments online. In addition, men and women tend to differ in their communication styles, which affect their responses to positive and negative opinions posted by others. Men tend to communicate to accomplish instrumental objectives, whereas women generally communicate to establish rapport or relationship (Mulac, 1998; Tannen, 1990; Wood, 1997). When they view conflicting comments on a blogger's product information, men should find both positive and negative comments appropriate and attend to negative comments as well as positive ones, whereas women may find disagreement less appropriate and try to avoid such comments by directing their attention only to supportive positive comments.

Along these lines, this article proposes that gender differences may shape the psychological tendency of orientation toward elaboration on positive or negative outcomes (Nenkov et al., 2008). Because men have a tendency to communicate to establish instrumentality, they should have been socialized to attend to both positive and negative information or stimuli, as long as they are instrumental. Accordingly, they should have
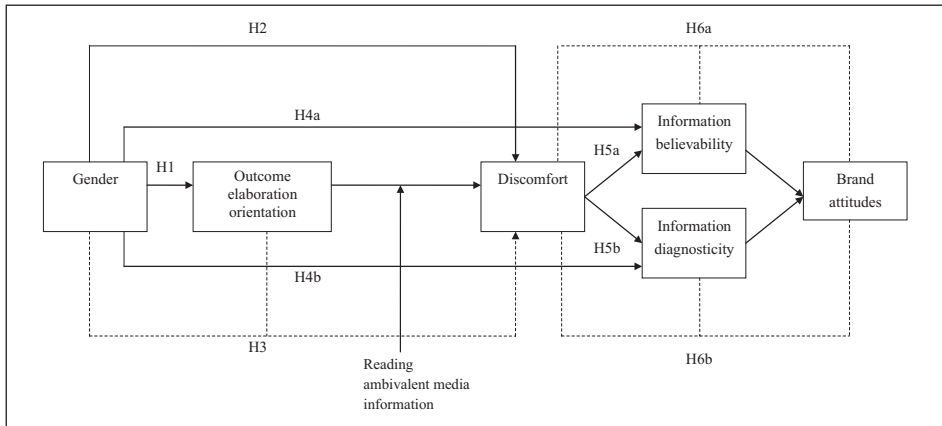
Figure 1. Proposed model. Dashed lines indicate mediation processes.

developed a balanced elaboration tendency toward positive and negative outcomes. In contrast, because women tend to communicate to establish rapport, they should have developed an orientation designed to approach rewards and avoid negative information or stimuli. In turn, they should have a higher tendency to elaborate on positive rather than negative outcomes.

Prior research has suggested that exposures to conflicting information result in ambivalent feelings (Chang, 2012, 2013; Monteith, 1996), which trigger discomfort (Nordgren et al., 2006). Because men generally attend to both positive (supportive) and negative (critical) comments, this study predicts that they may experience greater levels of discomfort. Then, affect-as-information effects imply that enhanced discomfort among men should result in lower credibility and diagnosticity ratings of the initial product information, as well as deteriorated product evaluations (see Figure 1).

In delineating these differences, this article adds to extant literature in three important ways. First, it shows that men have an equal tendency to elaborate on positive and negative outcomes, whereas women have a greater tendency to elaborate on positive outcomes than negative outcomes. Second, it demonstrates that men and women respond to user-generated conflicting comments in diverging ways, such that men experience greater levels of discomfort than women. Third, it depicts the underlying process by which this greater level of discomfort among men results in lower believability and diagnosticity ratings of the product information and more deteriorated product attitudes.

Theoretical background

Research on eWOM

WOM refers to "oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product or service" (Arndt, 1967: 190), and it involves "informal communications directed at

other consumers about the ownership, usage, or characteristics of particular goods and services or their sellers" (Westbrook, 1987: 261). According to recent findings, eWOM plays a key role in determining consumer behaviors (see Breazeale, 2009). Research also explores the influence of specific characteristics of eWOM, such as quality, quantity, and valence (Buttle, 1998; Lee et al., 2008; Park et al., 2007). For example, the valence of eWOM links directly to product attitudes, purchase intentions, and even product sales (Chevalier and Mayzlin, 2006; Lee et al., 2008; Park and Lee, 2009). Consumers rate products more favorably when WOM about those products is positive as opposed to negative (Charlett et al., 1995; Herr et al., 1991).

Yet, consumer-initiated eWOM seldom is unanimously positive or negative. Consumers commonly encounter conflicting or ambivalent comments rather than univalent comments. For example, different consumers may express contradictory opinions about the same product or its attributes, such that some share their positive product experiences, whereas other consumers find their product experiences terrible or unsatisfying. Relatively little research has explored how consumers respond to such mixed comments, though Park and colleagues showed that high proportions of negative comments resulted in less favorable attitudes than low proportions (Lee et al., 2008; Park et al., 2007).

Individual characteristics also should affect the degree to which people are influenced by the valence of eWOM. For example, information processing strategies adopted by different people determined the influence of valence of eWOM (Lee et al., 2008). Similarly, this study argues that gender differences in communication styles can affect responses to user-generated opinions that are mixed in valence.

Gender differences in communication styles and outcome elaboration tendencies

According to extant research, men and women communicate for different purposes and thus in different styles (Mulac, 1998; Tannen, 1990; Wood, 1997). On the Internet, a mediated social environment, gender differences in communication styles also emerge (Herring, 1996, 2000; Herring and Kapidzic, in press; Herring and Stoerger, 2013). Wood (1997; see also Mulac, 1998) argued that men communicate to achieve instrumentality, using communication styles oriented toward problem solving, with a focus on "getting information, discovering facts, and suggesting solution."(p. 173) Similar to face-to-face communication, when communicating online, men worry mainly about "freedom of expression and vigorous exchange of conflicting views" (Herring, 1999: 130). Men also reportedly have independent self-concepts and are oriented to agency (Cross and Madson, 1997), such that they exhibit a greater instrumentality orientation than women when communicating their social support (Burleson and Gilstrap, 2002) and also tend to communicate to exhibit their knowledge and ability (Wood, 1997). Prior research has shown that negative evaluators appear more intelligent, competent, and expert than positive evaluators (Amabile, 1983), so men should attend to consumer-generated opinions that exhibit knowledge and expertise, regardless of its valence.

According to Wood (1997; see also Tannen, 1990), women instead have a tendency to communicate to establish and maintain relations and connections, so their

communication styles display features that foster "connections, support, closeness and understanding." (p. 170) Wood emphasized that women's interpersonal communication generally exhibits support for others and expressions of empathy. Herring (1999) showed similar patterns of communication styles among women in computer-mediated and face-to-face communication, in that women's communications online involve "supporting, helping, and generally being considerate of others." (p. 130) Women also tend to have interdependent self-concepts, oriented toward communion (Cross and Madson, 1997). Cramer and Blatt (1990) argued that most women have anaclitic personalities, which encourage the incorporation of avoidance coping strategies, consistent with communion self-concepts. Thus, women may find other users' counterarguments less acceptable and try to avoid them.

In addition to avoiding negative stimuli, women approach positive rewards. For example, Carver and White (1994) demonstrated that women generated higher reward responsiveness scores than men, which are associated with tendency to experience positive affect and reward-dependent personalities. Affect regulation literature also has suggested that women exhibit more reward-related processing and regulate their positive emotions upward to offset any negative responses to a stimulus (McRae et al., 2008). Media research has documented similar findings: Knobloch-Westerwick and Alter (2006) found that women spent time focusing on positive news to dissipate their negative feelings, and Biswas et al. (1994) showed that when in negative moods, women selected less negative news to read than men did.

As they were socialized to communicate and respond to stimuli in different ways, men and women may have developed different tendencies to elaborate on positive and negative outcomes. Nenkov et al. (2008) theorized that elaborations on an object or related action can focus on positive or negative outcomes, and they further suggested that people differ in their tendencies to elaborate on those types of outcome valences. Because men and women reportedly differ in their instrumentality, rapport-oriented communication styles, and approach-avoidance orientations toward negative stimuli, they likely have developed different tendencies to elaborate on positive and negative outcomes. Women, who dislike conflicts, selectively ignore negative information, and approach rewards, should have developed a greater tendency to elaborate on positive outcomes than negative outcomes. In contrast, men should not show different elaboration tendencies toward positive versus negative outcomes:

> *Hypothesis 1*. (a) Women are more oriented toward positive outcome elaboration than negative outcomes and (b) men do not show such differences.

Gender differences in discomfort triggered by ambivalent information

Prior research has shown that exposure to conflicting media information not only activates conflicting perceptions but also elicits ambivalent feelings, defined as the degree to which people feel torn and conflicted about an attitude object (Newby-Clark et al., 2002; Priester and Petty, 2001). For example, listening to interviews with mixed (both positive and negative) opinions about another racial group leads to ambivalent perceptions of that group (Hass et al., 1991), as does receiving mixed media information regarding a new

target (Jonas et al., 1997). Ambivalent feelings also accompany exposure to conflicting media information. Thus Van Harreveld et al. (2009) demonstrated that reading ambivalent news aroused ambivalent feelings, and Chang (2012) showed that reading news articles with conflicting information about a person or an institution generated a greater level of ambivalent feelings.

When positive and negative perceptions or conflicted feelings about an object or a target are activated, people feel greater psychological tension and discomfort. For example, Hass et al. (1991) found that showing participants controversial information about an issue activated their ambivalent perceptions about it and elicited more negative emotional responses. Monteith (1996) demonstrated that holding conflicting evaluations of a target triggered discomfort, such as uneasy, bothered, and uncomfortable feelings. Nordgren et al. (2006) also showed that ambivalence was associated with tense and anxious feelings. These research findings thus have suggested that attending to both positive and negative information regarding the same object may engender a higher degree of discomfort among message receivers, which motivates them to attenuate such discomfort.

An important question then emerges: When men encounter conflicting information, will they feel greater discomfort than women? As argued previously, men are likely to attend to both positive and negative information and elaborate on both positive and negative outcomes. Men are also more likely to be aroused by negative stimuli than women. In contrast, women are more likely to avoid negative information and approach positive information. Women also develop a higher tendency to elaborate on positive outcomes and an approach orientation toward rewards. Therefore, men, rather than women, should feel greater levels of discomfort when processing user-generated conflicting opinions about a product:

> *Hypothesis 2*. Men feel greater levels of discomfort than women when exposed to conflicting consumer opinions.

The rationale leading to Hypothesis 1 anticipated that men would be oriented toward both positive and negative outcome elaboration, whereas women would be oriented toward positive outcome elaboration, more so than negative outcome elaboration. The rationale for Hypothesis 2 then suggested that men feel greater discomfort because of their tendency to elaborate on both negative and positive outcomes. Therefore, people's outcome elaboration orientation should mediate the relationship between their gender and their discomfort (see Figure 1):

> *Hypothesis 3*. Outcome elaboration orientation mediates the relationship between gender and discomfort.

Ambivalence-triggered discomfort and message evaluations

Media information might be judged from several different dimensions, such as believability and diagnosticity, which are both appropriate for evaluating online information

(e.g. Gershoff et al., 2003; Hu and Sundar, 2010) and WOM information (e.g. Kempf and Palan, 2006)—the two categories that best describe weblogs, the target of this investigation. Information *believability* generally refers to people's confidence in the truthfulness that information provides (Beltramini, 1982). *Diagnosticity* is "the extent to which a given piece of information discriminates between alternative hypotheses, interpretations, or categorizations" (Herr et al., 1991: 457). Product information is diagnostic if it helps consumers assess product quality, differentiates a product from other alternatives, or facilitates choice decisions (Chang, 2007; Herr et al., 1991).

Because generally men attend to and elaborate on negative information, whereas women avoid negative information and direct their attention to positive information, men should experience greater discomfort than women. Affect-as-information literature has suggested that a person's feelings function as information, such that people use "how-do-I-feel-about-it" cues as input for judgments. For example, if people experience negative feelings, they rate the target more negatively, but if they have positive feelings, they rate a target more positively (Schwarz, 1990; Schwarz and Clore, 1983). Similarly, when people read conflicting comments and experience discomfort, they should feel uncomfortable about the initial product information. To the degree that men feel greater discomfort than women, they should rate the initial blog message about the product (hereafter, product information) less credible and diagnostic than should women:

> *Hypothesis 4*. When confronted with conflicting consumer opinions, men generate lower ratings of (a) product information believability and (b) product information diagnosticity than do women.

The preceding hypotheses also imply that discomfort leads to deteriorated message ratings, that is, when mixed information about a product makes people uncomfortable, they should rate the information as less believable or diagnostic:

> *Hypothesis 5*. Discomfort leads to lower (a) product information believability and (b) product information diagnosticity.

Ambivalence-triggered discomfort and product evaluations

Finally, when confronted with conflicting consumer opinions, men should generate more negative product attitudes. Product information believability and diagnosticity are positively associated with attitudes toward the object featured in the message (Chang, 2009). With the lowered believability and diagnosticity conditions predicted in H4, people should generate less favorable attitudes toward the product:

> *Hypothesis 6*. When confronted with conflicting consumer opinions, men generate more negative product attitudes than do women.
> *Hypothesis 7*. (a) Product information believability and (b) product information diagnosticity mediate the relationship between discomfort and product attitudes.

Table 1. Experimental design.

Four factors				Content of four comments in each condition			
Gender of commenter	Source of positive comment	Source of negative comment	Order of comments	Comment 1	Comment 2	Comment 3	Comment 4
Men	In-group	In-group	PN	P + in	P + in	N + in	N + in
			NP	N + in	N + in	P + in	P + in
		Out-group	PN	P + in	P + in	N + out	N + out
			NP	N + out	N + out	P + in	P + in
	Out-group	In-group	PN	P + out	P + out	N + in	N + in
			NP	N + in	N + in	P + out	P + out
		Out-group	PN	P + out	P + out	N + out	N + out
			NP	N + out	N + out	P + out	P + out
Women	In-group	In-group	PN	P + in	P + in	N + in	N + in
			NP	N + in	N + in	P + in	P + in
		Out-group	PN	P + in	P + in	N + out	N + out
			NP	N + out	N + out	P + in	P + in
	Out-group	In-group	PN	P + out	P + out	N + in	N + in
			NP	N + in	N + in	P + out	P + out
		Out-group	PN	P + out	P + out	N + out	N + out
			NP	N + out	N + out	P + out	P + out

PN indicates that positive comments appear before negative comments. NP indicates that negative comments appear before positive comments. "P + in" indicates that positive comments come from in-group members. "N + in" indicates that negative comments come from in-group members. "N + out" indicates that negative comments come from out-group members. "P + out" indicates that positive comments come from out-group members.

Methods

Design

The study pertained to gender differences. Because completely randomized designs may suffer from power deficiencies if people with the same characteristics (in this case, women and men) are not equally distributed across different cells (Keppel, 1991), the study procedure was similar to a randomized block design, with gender as the blocking variable. Furthermore, because using one type of messages to test a theoretical model would be risky, such that the findings could be attributed to idiosyncratic characters associated with a specific type of message (Jackson, 1992), the experiment included three message factors to increase the generalizability of the findings. Equal numbers of men and women were recruited and randomly assigned to eight conditions featuring messages that varied in terms of the *order of the positive and negative comments* (positive first vs negative first), *source of the positive comments* (in-group vs out-group), and *source of the negative comments* (in-group vs out-group), as in Table 1.

Such tests are crucial for this investigation for two reasons. First, the social identity model of de-individuation effects suggests that in computer-mediated communication (CMC), where communication is de-individualized because of the lack of nonverbal

cues, social group identity becomes more salient than personal identity (Postmes et al., 1998). Therefore, in CMC, as opposed to face-to-face communication, in-group members tend to be evaluated more favorably than out-group members (Wang et al., 2009). Second, research has documented that women have more interdependent self-concepts, whereas men tend to have more independent self-concepts (Cross and Madson, 1997). Comments from in- or out-group members generate different influences among people with independent versus interdependent self-concepts (Escalas and Bettman, 2005). Therefore, it is important to establish whether in-group and out-group effects influence the proposed gender differences.

Participants viewed weblog pages that featured a blogger's positive descriptions about a MP3 player he or she had just purchased, followed by four comments from other consumers who also bought the product. The four comments provided contradictory information: Two were positive (supportive) about the sound quality of the MP3 player, and two were negative (critical) regarding its sound quality.

For the first message factor, study participants saw either the two positive comments followed by two negative comments, or vice versa. The reason for changing the order of the comments was the possibility that men or women might differ in their susceptibility to primacy or recency effects. Always presenting one type of information first could confound the gender effects. However, the effects of the order on the dependent variables were not significant (all Fs < 2.79, all ps > .10; see Table 2), nor were the interaction effects between order and gender (all Fs < 1.43, all ps > .23).

Varying the sources of the positive and negative comments helped prevent the potential confound with in- or out-group effects. A pretest identified "peer college students" as an applicable in-group and "adults with kids" as a pertinent out-group for the study participants. In the main experiment, the participants also rated these two groups using two semantic differential items on six-point scales (3 to −3): "College students/adults with kids are similar to/different from me" (3) and "I would say that college students/those adults with kids and me are the same types/different types of persons." The in-group (M = 1.27, standard deviation [SD] = 1.54) generated significantly higher ratings than the out-group (M = −0.52, SD = 1.30), $t(191)$ = 12.72, p < .01. Therefore, the 2 (source of two positive comments: in-group vs out-group) × 2 (source of two negative comments: in-group vs out-group) design created four message combinations: (1) positive and negative in-group comments, (2) positive in-group and negative out-group comments, (3) positive out-group and negative in-group comments, and (4) positive and negative out-group comments. However, an analysis of variance (ANOVA) revealed no effect of the sources of the positive or negative comments on any response measures (Fs < 1.43, ps > .23) or of the interaction with gender (Fs < 2.94, ps > .09), suggesting that the findings were robust across message conditions. The responses across the order or message conditions thus were collapsed for the mediation and regression analyses.

Participants and procedures

A total of 192 students from a university were recruited to participate in the study and received payment for their participation. In the recruitment stage, participants rated their own positive/negative outcome elaboration orientation, need for cognition (NFC), and

Table 2. ANCOVA results.

	Discomfort			Product information believability			Product information diagnosticity			Product attitudes		
	F	p	η_p^2	F	p	η_p^2	F	p	η_p^2	F	p	η_p^2
Covariates												
Product involvement	4.17	.04	.02	0.26	.61	.01	0.47	.49	.01	1.47	.23	.01
Need for cognition	4.37	.04	.03	0.52	.47	.01	1.31	.25	.01	3.06	.08	.02
Preference for consistency	1.12	.29	.01	0.85	.36	.01	0.73	.39	.01	0.26	.61	.01
Gender (G)	**10.97**	**.01**	**.06**	**7.46**	**.01**	**.04**	**6.49**	**.01**	**.04**	**4.56**	**.03**	**.03**
Order (O)	1.42	.24	.01	0.02	.90	.01	1.07	.30	.01	2.79	.10	.02
Positive source (P)	1.43	.23	.01	0.34	.56	.01	0.51	.48	.01	0.14	.71	.01
Negative source (N)	0.59	.44	.01	0.30	.59	.01	0.79	.38	.01	0.01	.91	.01
G × O	0.27	.61	.01	0.57	.45	.01	1.43	.23	.01	0.01	.91	.01
G × P	2.94	.09	.02	0.06	.81	.01	0.55	.46	.01	0.09	.77	.01
G × N	1.15	.29	.01	0.01	.92	.01	0.15	.70	.01	0.02	.88	.01
P × N	3.12	.08	.02	2.60	.11	.02	2.35	.13	.01	6.26	.01	.04
O × P	0.19	.66	.01	0.57	.45	.01	1.35	.25	.01	0.17	.69	.01
O × N	0.08	.78	.01	0.01	.94	.01	2.99	.09	.02	1.94	.17	.01
G × O × P	3.09	.08	.02	0.20	.66	.01	0.10	.76	.01	0.15	.70	.01
G × O × N	1.61	.21	.01	1.14	.29	.01	0.01	.99	.01	0.52	.47	.01
G × P × N	0.06	.81	.01	0.02	.88	.01	0.24	.62	.01	0.12	.73	.01
O × P × N	0.16	.69	.01	0.07	.80	.01	0.24	.63	.01	0.08	.78	.01
G × O × P × N	1.08	.30	.01	0.59	.45	.01	1.20	.28	.01	1.21	.27	.01

ANCOVA: analysis of covariance.
Note: What was predicted to be significant is boldfaced.

preference for consistency (PFC). This study has argued that elaboration on positive and negative outcomes should drive men's and women's different responses. Therefore, it was important to show that men and women did not differ in important personality orientations that might confound their attention to positive and negative opinions, such as NFC, which may increase attention to negative information, or PFC, which may reduce attention to conflicting opinions. In the lab sessions, the male and female participants were assigned randomly to one of the eight comment type conditions. After browsing the blog at their own pace, they responded to a questionnaire by rating their attitudes toward the product, the believability and diagnosticity of the weblog information, their sense of discomfort, and their product involvement.

Stimuli

The blog pages featured a MP3 player that was not available in the market where the experiment was conducted, so the possible influence of existing attitudes was minimal. This study controlled three characteristics of comments, to reduce confounding effects: *gender* of the commenter, comment *length*, and comment *quality*. In other words, the comments differed only in their valence. To prevent gender congruency effects, such that a male/female commenter's information provoked more positive ratings among male/female recipients, the commenter was consistently gender neutral.

Longer length may suggest stronger beliefs, so the lengths of all the comments fell within a similar range in terms of word count. Finally, comments of higher quality tend to encourage more information adoption (Cheung et al., 2008), so it was important to ensure that the positive and negative comments did not differ in their argument quality. A pretest ($N = 24$) determined that the two positive and negative comments differed only in valence, not in argument quality. Participants in the same pretest rated the valence of the comments using three semantic differential items: "the comment is positive/negative," "the comment is about the user's satisfaction/dissatisfaction with the product," and "the comment is supportive/critical of the product" (Cronbach's alphas > .75). Positive comments generated significantly greater ratings. The detailed results of the pretest are available on request.

Measurements

Covariates. Product involvement was analyzed as a covariate, because respondents with high product involvement might welcome all possible information, regardless of its valence. The measure of *product involvement* used 16 items from Laurent and Kapferer's (1985) product involvement scale (Cronbach's alpha = .86).

Moreover, NFC and PFC were measured and analyzed as covariates, because they might affect responses to mixed information. For *NFC*, this study used Cacioppo et al.'s (1984) measure with 18 items (e.g. "I would prefer complex to simple problems"; Cronbach's alpha = .93). The measure of *PFC* used Cialdini et al.'s (1995) scale with nine items (e.g. "I want to be described by others as a stable, predictable person"; Cronbach's alpha = .79). All the scales used seven-point Likert scales, such that higher scores indicated greater levels of the characteristics.

Outcome elaboration orientation. A scale from Nenkov et al. (2008) offered two subscales: a three-item positive outcome scale (e.g. "I prefer to think about the good things that can happen rather than the bad"; Cronbach's alpha = .79) and a four-item negative outcome scale ("When thinking over my decisions I focus more on their negative end results"; Cronbach's alpha = .85).

Discomfort. Participants rated how they felt using Monteith's (1996) 5-point semantic differential scales with four items: uncomfortable–comfortable, calm–tense, uneasy–easy, and relieved–anxious. The Cronbach's alpha was .94.

Product information believability. Four items served to assess the believability of the information posted on the weblog, using a seven-point Likert scale: "The initial information on the weblog was believable/convincing/reasonable/authentic," adopted from Chang (2009). The responses to the four items were averaged, such that higher ratings indicated higher levels of agreement. The Cronbach's alpha for this scale was .93.

Product information diagnosticity. Three items served to assess the diagnosticity of the information posted on the weblog; they each began with the stem: "The initial product information on the blog is …" then measured four items: "very indicative of how good or bad this product is," "very helpful in telling me the quality of the product," and "very useful when evaluating the product." This scale was adopted from Kempf and Palan (2006) and Pham (1996). The responses to these three items also were averaged, such that higher ratings indicated higher levels of agreement. The Cronbach's alpha was .92.

Product attitudes. On seven-point Likert scales, participants indicated the degree to which they believed several evaluative items applied to the product featured in the weblog discussion (Chang, 2005) (e.g. "the product is good," "the product is of good quality"; Cronbach's alpha = .92).

Analyses and results

Manipulation checks. For the manipulation checks, participants rated each comment using the valence items from the pretest (Cronbach's alphas > .96). A repeated-measures ANOVA indicated that the four comments differed significantly in their valence, $F(3, 191) = 712.38$, $p < .01$. The two positive comments again generated significantly higher ratings than the negative comments, $M_{pos.1} = 5.95$, $SD = 1.17$; $M_{pos.2} = 6.08$, $SD = 1.08$; $M_{neg.1} = 2.69$, $SD = 0.80$; and $M_{neg.2} = 2.67$, $SD = 0.86$. In this case, the four paired *t*-tests between positive and negative comments were significant (ts > 26.25, ps < .01).

Confounding testing. A required first step was to check whether men and women differed on other important characteristics that could affect their responses to conflicting opinions. An ANOVA indicated that men ($M = 4.80$, $SD = 1.13$) and women ($M = 4.71$, $SD = 1.00$) did not differ in their product involvement with MP3 players, $F(1, 190) = .34$, $p = .56$, so using an MP3 player as the target product should not affect their processing strategies. Men and women also did not differ in terms of NFC, $F(1, 190) = 2.06$, $p = .15$,

M_{men} = 4.81, SD = 0.90, M_{women} = 4.62, SD = 0.98; or PFC, $F(1, 190)$ = .35, p = .55, M_{men} = 4.94, SD = 0.78, M_{women} = 4.87, SD = 0.84. These findings ruled out the possibility that the gender effects reported in this study were caused by existing characteristics.

Hypothesis testing. As Hypothesis 1a predicted, a repeated-measures ANOVA first showed a significant interaction between outcome elaboration orientation and gender, $F(1, 190)$ = 6.94, p < .01, η_p^2 = .04. Also as expected, among the women's responses, the repeated-measures ANOVA indicated that ratings of positive outcome elaboration (M = 4.82, SD = 1.30) were significantly greater than the ratings of negative outcome elaboration (M = 4.37, SD = 1.29), $F(1, 94)$ = 4.08, p = .05, η_p^2 = .04. For the men, the repeated-measures ANOVA did not find any differences in their ratings of positive (M = 4.39, SD = 1.37) or negative (M = 4.76, SD = 1.26) outcome elaboration, $F(1, 94)$ = 2.89, p = .09, η_p^2 = .03, as expected. The ANOVA also revealed that, in terms of negative outcome elaboration, men generated significantly higher ratings than women, $F(1, 190)$ = 4.40, p = .04, η_p^2 = .02. For positive outcome elaborations, women generated significantly higher ratings than men, $F(1, 190)$ = 5.14, p = .03, η_p^2 = .03. This finding suggested that women avoided elaboration on negative outcomes but elaborated on positive outcomes.

The tests of H2, H4, and H6 involved analyses of covariance (ANCOVAs), with three existing differences (product involvement, NFC, and PFC) analyzed as covariates (see Table 2). In support of H2, the ANCOVA revealed that the effect of gender on discomfort was significant, $F(1, 173)$ = 10.97, p < .01, η_p^2 = .06. Consistent with expectations, men (M = 2.88, SD = 1.25) felt a greater degree of discomfort than women (M = 2.34, SD = 1.17).

H3 suggested that outcome elaboration orientation should mediate the relationship between gender and discomfort. The responses to the two orders and across the four message conditions were collapsed in the mediation analyses. Positive and negative outcome orientations were significantly and negatively correlated, Pearson's r = −.39, p < .01, so for this study, the responses to the positive outcome scale were reversed and averaged with the responses to the negative outcome scale to calculate the elaboration orientation score to test H3. Greater scores indicated a greater tendency toward negative outcome elaboration. The test of the simple mediation of the indirect effects of the independent variable on dependent variables through changes in mediators used Preacher and Hayes' (2004) bootstrapping methodology, with 5000 bootstrap resamples, to describe the confidence intervals (CIs) of the indirect effects. In the analyses, men were coded as 1 and women as −1. The bootstrap results confirmed the mediation model; the 95% CI surrounding the indirect effect nearly contained zero but formally did not (.01, .11), which confirmed H3.

Consistent with the predictions of H4, the ANCOVA indicated that gender had a significant impact on weblog believability, $F(1, 173)$ = 7.46, p < .01, η_p^2 = .04, such that men (M = 3.94, SD = 1.38) generated lower ratings than women (M = 4.42, SD = 1.11). Gender also influenced weblog diagnosticity ratings, $F(1, 173)$ = 6.49, p = .01, η_p^2 = .04, in that men (M = 3.25, SD = 1.38) generated lower ratings than women (M = 3.71, SD = 1.27) on this measure too.

The test of H5 involved regression analyses, with the responses to the two orders and across the four message conditions collapsed. When *product information believability* was regressed on discomfort (β = −.39, B = −.40, SE = .07), the results indicated

discomfort was a significant predictor, explaining 15.2% of the variance (R^2 = .15, $F(1,190) = 33.97$, $p < .01$), in support of Hypothesis 5a. When *product information diagnosticity* was regressed on discomfort ($\beta = -.26$, B = $-.28$, standard error [SE] = .08), discomfort emerged as a significant predictor that accounted for 6.5% of the variance, R^2 = .07, $F(1, 190) = 13.26$, $p < .01$, which also confirmed Hypothesis 5b.

Consistent with the predictions of H6, an ANCOVA showed that men ($M = 4.28$, $SD = 1.00$) expressed less favorable attitudes toward the product (MP3 player) than women ($M = 4.55$, $SD = 0.98$), $F(1, 173) = 4.56$, $p = .03$, $\eta_p^2 = .03$.

Finally, Hypothesis 7a predicted that product information believability would mediate the relationship between discomfort and product attitudes. The bootstrap results of 5000 resamples confirmed the mediation model; the 95% CI surrounding the indirect effect did not contain zero ($-.29$, $-.13$), in support of Hypothesis 7a. Then Hypothesis 7b proposed that product information diagnosticity also would mediate the relationship between discomfort and product attitudes. The bootstrap results of 5000 resamples confirmed the mediation model; the 95% CI surrounding the indirect effect did not contain zero ($-.22$, $-.06$), in support of Hypothesis 7b.

Discussion

Findings and contribution

Most user-generated opinions on the Internet can be characterized as conflicting or mixed in valence, rather than univalent. However, prior research seemingly has paid less attention to how people respond to mixed or conflicting information than to univalent positive or negative information. Exploring people's responses to conflicting opinions is especially important on the Internet, where users searching for information frequently encounter ambivalent or conflicting information or opinions. Therefore, this study adds to extant CMC literature by extending research attention to conflicting opinions.

This study also introduces a theoretical framework that illustrates how men and women respond differently to conflicting opinions. Because people exchange opinions on the Internet similar to the way they do in face-to-face interactions, gender differences in communication styles and coping strategies are applicable for explaining their different responses. Specifically, drawing on gender differences in communication styles and approach-avoidance coping styles, this study reasoned that differences in communication styles and coping strategies would result in men's and women's different tendency to elaborate on positive and negative outcomes. As expected, the results demonstrated that men had a balanced tendency to elaborate on both positive and negative outcomes, whereas women had a greater tendency to elaborate on positive rather than negative outcomes.

With these elaboration orientation differences, the proposed model indicated that attending to both positive and negative opinions and elaborating on both positive and negative outcomes triggered greater levels of discomfort, which drove deteriorated evaluations of product information and product evaluations. The findings confirmed the proposed model. This study also manipulated sources of comments from in-group and out-group members, but the findings stayed consistent regardless of the type of source, suggesting that the gender difference findings did not hinge on such source variations.

Further research directions

Prior research has shown that in a CMC setting, when people wish to affiliate with their partners, they generate more agreements and fewer disagreements (Walther et al., 2010). It is likely that in CMC, women have a stronger need for affiliation than men, which motivates them to avoid negative comments from other Internet users to a greater degree. Further research should explore whether gender differences in affiliation orientation is a plausible alternative mechanism.

This study controlled for two message characteristics (quality and length) and one source characteristic (i.e. gender of the commenter). Prior research has suggested that message characteristics affect consumers' responses to online information. Additional research should explore whether these controlled factors and other important message/source factors instead might affect men's and women's responses to conflicting messages. It would be important to establish that even if the characteristics of the conflicting messages vary (e.g. relevance, quality, length, substantiation, vividness), men and women still respond differently.

Additional research should test different combinations of mixed information too. This study manipulated an equal number of positive and negative comments, but the proportion of negative comments may alter people's responses (Lee et al., 2008). If men attend more to negative outcomes, whereas women focus on positive outcomes, men/women should approach/shun negative information, regardless of its relative proportion to positive information.

People may perceive that vehicles on the Internet vary in terms of social closeness and thus expect different degrees of social harmony. The reported gender differences may be enhanced if the online community is socially close. For example, women who browse opinions posted in an online community by members who also interact with them offline may find negative comments very inappropriate. Arguing with others in such platforms (e.g. social networking sites), when affiliation is expected, may be less appropriate than arguing with others in other platforms (e.g. product review sites), where utility is the primary expectation. Moreover, some online vehicles offer synchrony. Gender differences may be enhanced if the online interaction is synchronous, because it is more similar to a face-to-face social setting.

Most controversial issues consist of multiple dimensions; similarly, most products comprise multiple features, and conflicting comments might pertain to different or the same dimensions or features. In this experiment, the contradictory comments focused on the same product features, but research could compare the different effects of mixed comments regarding the same as opposed to different attributes. It seems likely that discomfort would be greater if the contradictory comments pertained to the same attributes.

Implications for practitioners

It is not common for consumers to find unanimous positive comments in online reviews, which suggests that practitioners need a thorough understanding of how potential buyers respond to such mixed comments. The comments posted online by consumers are not under the direct control of advertisers, yet the findings recommend that advertisers of

products or services that target male consumers should undertake particular efforts to prevent negative WOM. First, quality control is critical, because high satisfaction and service quality reduce negative WOM (De Matos and Rossi, 2008). Second, these marketers should pursue closer relationships with customers, because a meta-analysis suggests that consumers with high commitment and loyalty to a brand, as well as higher trust in it, are less likely to spread negative WOM (De Matos and Rossi, 2008). Third, negative WOM is often "an outcome of unsatisfactory imbalance between expectations and perceptions" (Buttle, 1998: 246), so marketers should adopt strategies that might reduce this imbalance. For example, when developing marketing communication campaigns, advertisers should promote reasonable expectations; in service settings, they should offer social support, conveyed by verbal or nonverbal communication that increases consumers' self-esteem or sense of control and thereby reduces their uncertainty (Adelman and Ahuvia, 1995).

Limitations

The findings of this study must be interpreted according to its limitations. First, all the participants were college students. Young people and college students are heavy Internet users (Rainie, 2010) and commonly purchase online (Leon, 2006); their responses to mixed comments may differ from those of the general public. Second, though the weblog tested herein offered all the typical features of a blog, some of its links could not be clicked through. Regardless of these limitations though, this study has extended prior research by illustrating the different processes triggered by mixed information for men and women.

References

ACNielsen (2007) Word-of-mouth the most powerful selling tool: Nielsen global survey. Available at: http://www.nielsen.com/us/en/press-room/2007/Word-of-Mouth_the_Most_Powerful_Selling_Tool__Nielsen_Global_Survey.html

Adelman MB and Ahuvia AC (1995) Social support in the service sector: the antecedents, processes, and outcomes of social support in an introductory service. *Journal of Business Research* 32(3): 273–282.

Allsop DT, Bassett BR and Hoskins JA (2007) Word-of-mouth: principles and applications. *Journal of Advertising Research* 47(4): 398–411.

Amabile TM (1983) Brilliant but cruel: perceptions of negative evaluators. *Journal of Experimental Social Psychology* 19(2): 146–156.

Arndt J (1967) Word of mouth advertising and informal communication. In: Cox DF (ed.) *Risk Taking and Information Handling in Consumer Behavior*. Boston, MA: Graduate School of Business Administration, Harvard University, pp. 188–239.

Beltramini RF (1982) Advertising perceived believability scale. In: Corrigan DR, Frederic B Kraft and Ross RH (eds) *Proceedings of the Southwestern Marketing Association*. Wichita, KS: Southwestern Marketing Association, pp. 1–3.

Biswas R, Riffe D and Zillmann D (1994) Mood influence on the appeal of bad news. *Journalism & Mass Communication Quarterly* 71(3): 689–696.

Breazeale M (2009) Word of mouth: an assessment of electronic word-of-mouth research. *International Journal of Market Research* 51(3): 297–318.

Burgoon M and Miller GB (1987) An expectancy interpretation of language and persuasion. In: Giles H and St. Clair RN (eds) *Recent Advances in Language, Communication, and Social Psychology*. Hillsdale, NJ: Lawrence Erlbaum, pp. 199–299.

Burleson BR and Gilstrap CM (2002) Explaining sex differences in interaction goals in support situations: some mediating effects of expressivity and instrumentality. *Communication Reports* 15(1): 43–55.

Buttle F (1998) Word of mouth: understanding and managing referral marketing. *Journal of Strategic Marketing* 6(3): 241–254.

Cacioppo JT, Petty RE and Kao CF (1984) The efficient assessment of need for cognition. *Journal of Personality Assessment* 48(3): 306–307.

Carver CS and White TL (1994) Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: the BIS/BAS scales. *Journal of Personality and Social Psychology* 67(2): 319–333.

Chang C (2005) Ad–self-congruency effects: self-enhancing cognitive and affective mechanisms. *Psychology & Marketing* 22(11): 887–910.

Chang C (2007) Diagnostic advertising content and individual differences: testing a resource-matching perspective with a Taiwanese sample. *Journal of Advertising* 36(3): 75–84.

Chang C (2009) Effectiveness of promotional premiums: the moderating role of affective state in different context. *Psychology & Marketing* 26(2): 175–194.

Chang C (2012) Ambivalent attitudes in a communication process: an integrated model. *Human Communication Research* 38(3): 332–359.

Chang C (2013) The influence of ambivalence toward a communication source: media context priming and persuasion polarization. *Communication Research*. Epub ahead of print 16 August 2013. DOI:10.1177/0093650213495408.

Charlett D, Garland R and Marr N (1995) How damaging is negative word of mouth? *Marketing Bulletin* 6(1): 42–50.

Cheung CMK, Lee MKO and Rabjohn N (2008) The impact of electronic word-of-mouth: the adoption of online opinions in online customer communities. *Internet Research* 18(3): 229–249.

Chevalier JA and Mayzlin D (2006) The effect of word of mouth on sales: online book reviews. *Journal of Marketing Research* 43(3): 345–354.

Cialdini RB, Trost MR and Newsom J (1995) Preference for consistency: the development of a valid measure and discovery of surprising behavioral implications. *Journal of Personality and Social Psychology* 69(2): 318–328.

Cramer P and Blatt SJ (1990) Use of the TAT to measure change in defense mechanisms following intensive psychotherapy. *Journal of Personality Assessment* 54(1–2): 236–251.

Cross SE and Madson L (1997) Models of the self: self-construals and gender. *Psychological Bulletin* 122(1): 5–37.

De Matos CA and Rossi CAV (2008) Word-of-mouth communications in marketing: a meta-analytic review of the antecedents and moderators. *Journal of the Academy of Marketing Science* 36(4): 578-596.

Escalas JE and Bettman JR (2005) Self-construal, reference groups and brand meaning. *Journal of Consumer Research* 32(3): 378–389.

Gershoff AD, Mukherjee A and Mukhopadhyay A (2003) Consumer acceptance of online agent advice: extremity and positivity effects. *Journal of Consumer Psychology* 13(1): 161–170.

Hass RG, Katz I, Rizzo N, et al. (1991) Cross-racial appraisal as related to attitude ambivalence and cognitive complexity. *Personality and Social Psychology Bulletin* 17(1): 83–92.

Herr PM, Kardes FR and Kim J (1991) Effects of word-of-mouth and product-attribute information on persuasion: an accessibility-diagnosticity perspective. *Journal of Consumer Research* 17(4): 454–462.

Herring SC (1996) Bringing familiar baggage to the new frontier: gender differences in computer-mediated communication. In: Vitanza VJ (ed.) *CyberReader*. Boston, MA: Allyn & Bacon, pp. 144–154.

Herring SC (1999) Posting in a different voice: gender and ethics in computer-mediated communication. In: Mayer PA (ed.) *Computer Media and Communication: A Reader*. New York: Oxford University Press, pp. 241–265.

Herring SC (2000) Gender differences in CMC: findings and implications. *Computer Professionals for Social Responsibility Journal* 18(1). Available at: www.cpsr.org/issues/womenintech/herring/ (accessed 20 February 2014).

Herring SC and Stoerger S (2013) Gender and (a)nonymity in computer-mediated communication. In: Holmes J, Meyerhoff M and Ehrlich S (eds) *Handbook of Language, Gender, and Sexuality*. 2nd ed. Hoboken, NJ: Wiley-Blackwell Publishing, pp. 567–586. Available at http://ella.slis.indiana.edu/~herring/herring.stoerger.pdf (accessed 20 February 2014).

Herring SC and Kapidzic S (in press) Teens, gender, and self-presentation in social media. In: Wright JD (ed.) *International Encyclopedia of Social and Behavioral Sciences*. 2nd ed. Oxford: Elsevier, pp. 1–16. Available at http://ella.slis.indiana.edu/~herring/teens.gender.pdf (accessed 20 February 2014).

Hu Y and Sundar S (2010) Effects of online health sources on credibility and behavioral intentions. *Communication Research* 37(1): 105–132.

Jackson SA (1992) *Message Effects Research: Principles of Design and Analysis*. New York: Guilford Press.

Jonas K, Diehl M and Bromer P (1997) Effects of attitudinal ambivalence on information processing and attitude-intention consistency. *Journal of Experimental Social Psychology* 33(2): 190–210.

Kempf DS and Palan KM (2006) The effects of gender and argument strength on the processing of word-of-mouth. *Academy of Marketing Studies Journal* 10(1): 1–18.

Keppel G (1991) *Design and Analysis: A Researcher's Handbook*. 3rd ed. Englewood Cliffs, NJ: Prentice Hall.

Knobloch-Westerwick S and Alter S (2006) Mood adjustment to social situations through mass media use: how men ruminate and women dissipate angry moods. *Human Communication Research* 32(1): 58–73.

Laurent G and Kapferer J (1985) Measuring consumer involvement profiles. *Journal of Marketing Research* 22(1): 41–53.

Lee J, Park D and Han I (2008) The effect of negative online consumer reviews on product attitude: an information processing view. *Electronic Commerce Research and Applications* 7(3): 341–352.

Leon C (2006) Poll shows 98 percent of college students spend money online. Available at: http://www.techzone360.com/news/2006/03/07/1439037.htm

McRae K, Ochsner KN, Mauss IB, et al. (2008) Gender differences in emotion regulation: an fMRI study of cognitive reappraisal. *Group Processes & Intergroup Relations* 11(2): 143–162.

Monteith MJ (1996) Contemporary forms of prejudice-related conflict: in search of a nutshell. *Personality and Social Psychology Bulletin* 22(5): 461–473.

Mulac A (1998) The gender-linked language effect: do language differences really make a difference? In: Canary DJ and Dindia K (eds) *Sex Differences and Similarities in Communication:*

Critical Essays and Empirical Investigation of Sex and Gender in Interaction. Mahwah, NJ: Lawrence Erlbaum, pp. 211–231.

Nenkov GY, Inman JJ and Hulland J (2008) Considering the future: the conceptualization and measurement of elaboration on potential outcomes. *Journal of Consumer Research* 35(1): 126–141.

Newby-Clark IR, McGregor I and Zanna MP (2002) Thinking and caring about cognitive inconsistency: when and for whom does attitudinal ambivalence feel uncomfortable? *Journal of Personality and Social Psychology* 82(2): 157–166.

Nordgren LF, van Harreveld F and van der Pligt J (2006) Ambivalence, discomfort, and motivated information processing. *Journal of Experimental Social Psychology* 42(2): 252–258.

Park D and Lee M (2009) Information direction, website reputation and eWOM effect: a moderating role of product type. *Journal of Business Research* 62(1): 61–67.

Park D, Lee J and Han I (2007) The effect of on-line consumer review on consumer purchasing intention: the moderating role of involvement. *International Journal of Electronic Commerce* 11(4): 125–148.

Pham MT (1996) Cue representation and selection effects of arousal on persuasion. *Journal of Consumer Research* 22(4): 373–387.

Postmes T, Spears R and Lea M (1998) Breaching or building social boundaries? SIDE-effects of computer-mediated communication. *Communication Research* 25(6): 689–715.

Postmes T, Spears R and Lea M (2000) The formation of group norms in computer-mediated communication. *Human Communication Research* 26(3): 341–371.

Preacher KJ and Hayes AF (2004) SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments & Computers* 36(4): 717–731.

Priester JR and Petty RE (2001) Extending the bases of subjective attitudinal ambivalence: interpersonal and intrapersonal antecedents of evaluative tension. *Journal of Personality and Social Psychology* 80(1): 19–34.

Rainie L (2010) *Internet, Broadband, and Cell Phone Statistics*. Washington, DC: The Pew Internet & American Life Project. Available at: http://www.pewinternet.org/Reports/2010/Internet-broadband-and-cell-phone-statistics.aspx

Schwarz N (1990) Feelings as information: informational and motivational functions of affective states. In: Higgins ET and Sorrentino R (eds) *Handbook of Motivation and Cognition: Foundations of Social Behavior*. New York: The Guilford Press, pp. 527–561.

Schwarz N and Clore GL (1983) Mood, misattribution, and judgments of well-being: information and directive functions of affective states. *Journal of Personality and Social Psychology* 45(3): 513–523.

Sen S and Lerman D (2007) Why are you telling me this? An examination into negative consumer reviews on the web. *Journal of Interactive Marketing* 21(4): 76–94.

Tan LK, Na J and Theng Y (2011) Influence detection between blog posts through blog features, content analysis, and community identity. *Online Information Review* 35(3): 425–442.

Tannen D (1990) *You Just Don't Understand: Women and Men in Conversation*. New York: William Morrow.

Van Harreveld F, Rutjens BT, Rotteveel M, et al. (2009) Ambivalence and decisional conflict as a cause of psychological discomfort: feeling tense before jumping off the fence. *Journal of Experimental Social Psychology* 45(1): 167–173.

Walther JB, Van Der Heide B, Tong ST, et al. (2010) Effects of interpersonal goals on inadvertent intrapersonal influence in computer-mediated communication. *Human Communication Research* 36(3): 323–347.

Wang Z, Walther JB and Hancock JT (2009) Social identification and interpersonal communication in computer-mediated communication: what you do versus who you are in virtual groups. *Human Communication Research* 35(1): 59–85.

Westbrook RA (1987) Product/consumption-based affective responses and postpurchase processes. *Journal of Marketing Research* 24(3): 258–270.

Wood JT (1997) *Gendered Lives: Communication, Gender and Culture*. Washington, DC: Wadsworth Publishing Company.

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