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The Influence of Self-Generated and Third-Party Claims Online: Perceived Self-Interest as an Explanatory Mechanism

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Over the past two decades, communication technology scholars have examined how viewers evaluate the authenticity of information online, with particular attention given to how self versus third-party claims differ in their degree of influence. We examine how self-interest perceptions serve an important explanatory function in the logic of warranting theory and help account for how people evaluate content online. Our results document how the source and valence of a message can interact to affect perceptions of source self-interest, which, in turn, affect perceptions of source trustworthiness, message accuracy, and, ultimately, evaluations of an online target. The findings establish boundary conditions for the warranting principle and our discussion offers insight into the production and evaluation of online claims.

Keywords: Warranting Theory, Self-Interest, Online Impression Management, Source Effects, User-Generated Content, Social Media, Credibility

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People use information from the Internet to guide important decisions in their lives: whom to date, for whom to vote, what to buy, where to visit, and whom to hire (Luca & Zervas, 2016). A common feature of many web-based platforms is that multiple sources exist that provide information about different evaluative targets (e.g., people, products, places, organizations). Although researchers have made considerable progress in classifying different online sources and understanding how these various sources uniquely influence viewers' attitudes, beliefs, and behaviors (Sundar & Nass, 2001; Walther & Jang, 2012), more work is needed to fully understand why viewers are more or less likely to be influenced by information appearing online from different sources. The goal of this study was to further clarify how message valence (positive or negative) can interact with source type (self vs. third-party) to affect the degree to which online claims are influential. Specifically, we examined how message valence can

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moderate perceptions of a source's self-interest and, thus, determine the degree to which online claims are viewed as accurate and online sources are viewed as trustworthy.

Self versus third-party claims online

Over the past decade, a body of literature has emerged that collectively suggests that third-party claims (sometimes referred to as other-generated or user-generated claims) are more influential than self-generated claims (sometimes referred to as target claims or profile owner claims). Although more nuance exists in each study, this general claim can be found in work that examines various interpersonal evaluations (e.g., Carr, Hall, Mason, & Varney, 2017; Parks, 2011; Scott & Ravenscroft, 2017; Utz, 2010; Walther, Van Der Heide, Hamel, & Shulman, 2009), as well as evaluations of products and other targets. A commonality of the aforementioned work and related studies is that they draw upon warranting theory to guide predictions for why self-claims and third-party claims influence impressions differently online.

Walther and Parks (2002) established the central components of warranting theory in response to the emergence of computer-mediated communication and the recognition that people are concerned about the degree to which online self-presentations might have little correspondence to an offline reality. Their work focused both on how senders can enhance the perceived authenticity of their online self-presentations and, relatedly, how viewers determine whether online self-presentations truly reflect an offline reality. Notably, the authors argued that viewers evaluate the perceived warranting value of information presented online to determine its authenticity. Perceptions of warranting value refer to the degree to which information is immune to manipulation by the source it describes (Walther & Parks, 2002). According to the warranting principle, the more information is not controlled or manipulated by the source it describes, the more viewers evaluate the information as authentic.

In an initial test of the warranting principle, Walther et al. (2009) expected third-party claims on Facebook, regardless of their valence, to be viewed as having a higher degree of warranting value than self-claims and, thus, to be treated as more authentic. They found mixed support for this general prediction and, as a result, speculated that the warranting principle might be less likely to hold when self-claims do not appear to benefit the target (e.g., negative self-claims). More recent research has built off the original work of Walther et al. (2009) to explain the circumstances under which both third-party claims and self-claims might vary in their degree of warranting value and, thus, their influence, challenging initial assumptions that third-party claims are always viewed as more authentic than self-claims (see DeAndrea, 2014; Rosenthal-Stott, Dicks, & Fielding, 2015). We sought to build off work that focused on how perceptions of information control (i.e., warranting value) affect the evaluation of information online (e.g., DeAndrea, 2014) and work that established the importance of considering how the source and valence of messages can interact to challenge predictions derived from the warranting principle (e.g., Rosenthal-Stott et al., 2015). Notably, we sought to more fully explicate why perceptions of information control are expected to influence judgments about the authenticity of information online.

Message valence and source effects

Rosenthal-Stott et al. (2015) noted an important distinction that exists in offline and online research that examines source effects in impression formation. The authors contrasted work guided by warranting theory that predicts that third-party claims—regardless of their valence—are more influential than self-claims with research that predicts that third-party claims are only more influential than self-claims for

positive information (Brandt, Vonk, & van Knippenberg, 2009). The reasoning for restricting the effect to only positive claims is that people, by default, manage their own impressions but do not automatically manage the impressions of others. As such, for positive claims, targets are generally more motivated and likely to portray themselves favorably (to accrue benefits) than are third parties. Generally, being more motivated is a key aspect of this broad expectation, as there are circumstances where people can directly or indirectly benefit from evaluating others favorably (Schlenker & Britt, 1999, 2001). However, absent information that connects third parties to the targets they evaluate, or provides insight about the benefits third parties might receive by portraying targets favorably, viewers have a general tendency to assume that positive information benefits targets more than third parties.

There are several plausible explanations for why message valence might moderate self versus third-party source effects. For instance, positive self-claims might cause targets to be seen as boastful narcissists, whereas positive claims produced by third parties are less likely to carry such baggage (Pfeffer, Fong, Cialdini, & Portnoy, 2006). Nonetheless, we focused on an explanation that pertains to differences in self-presentation motivation. Specifically, we sought to examine whether perceptions of self-interest—the degree to which sources are perceived to benefit from the claims they make—can parsimoniously account for evaluative processes documented in both offline person perception research and online warranting theory research. In doing so, we (a) formally establish new boundary conditions for warranting theory; and (b) make novel predictions about the conditions under which viewers are actually more likely to trust self-claims, relative to third-party claims, online.

Source self-interest and evaluations of positive information

For better or worse, research suggests that people often assume that others act in self-interested ways. People even have the propensity to ascribe self-serving motives to genuinely altruistic and prosocial acts (Critcher & Dunning, 2011). As previously discussed, positive self-claims are likely to be discounted relative to positive third-party claims because, in general, targets stand to benefit more from positive claims about themselves than do others. However, users of online media can also benefit from engendering positive impressions of others. Past evidence suggests that the influence of third-party claims can be augmented or discounted, depending on the perceived motives of the third-party sources; the more third parties seem to benefit from portraying a target favorably, the less influential receivers find their claims to be (e.g., Boerman, 2014; Brandt, Vonk, & van Knippenberg, 2011; DeAndrea & Vendemia, 2016). As such, perceptions of self-interest can account for circumstances under which both self-claims and third-party claims are discounted and, therefore, when self versus third-party effects are likely to occur.

Perceptions of self-interest also explain why perceptions of warranting value affect the perceived authenticity of information online (not simply that they do in a systematic fashion). Who is controlling information is important to know precisely because sources differ in the degree to which they benefit from having others view a target favorably or unfavorably. This explanation underlies Walther and Parks' (2002) original argumentation for why perceptions of warranting value are relevant. People can take advantage of features of newer media to misrepresent their characteristics online (i.e., create a greater disconnection between an online and offline reality). As such, it is important to know what information (about a target) is under the control of the target and what information is under the control of third parties (who are less likely to misrepresent characteristics of the target to others). Bringing this underlying explanation to the forefront of warranting theory allows for more accurate predictions of when warranting effects should occur (i.e., when there are motivational differences between targets and third parties).

Beyond establishing why third-party claims (which are high in warranting value) might not always be more influential than self-claims (i.e., when third parties benefit from portraying targets favorably), this explanation explicitly clarifies why researchers have been able to extend the warranting principle beyond its original scope. Warranting value was originally defined as the degree to which individuals control or manipulate information about themselves. However, the definition has been expanded to account for perceived control over not just self-claims, but any claim that benefits the target (i.e., the degree to which individuals control or manipulate information that benefits themselves; see [Lew & Walther, 2017](#)). For instance, a recent study demonstrated that people discount positive third-party reviews about a business (not the business owner) when the reviews appear on the business owner's own website, relative to when the same reviews, written by the same people, appear on a website that the business owner does not control ([DeAndrea, Van Der Heide, Vendemia, & Vang, 2018](#)).

The following formally summarizes the previous arguments pertaining to how perceptions of self-interest and warranting value combine to affect the evaluation of positive information online. All things being equal, people tend to view third-party claims as more authentic than target-generated information when: (a) target claims are positive (and viewed as benefiting the target); (b) positive third-party information is not controlled or manipulated by the target; and (c) third-party information is not produced by individuals who are perceived to benefit by creating positive impressions of the target.

Source self-interest and evaluations of negative information

Unlike positive self-claims, negative self-claims are less likely to be viewed as self-benefiting. If perceptions of self-interest explain (at least partially) why people view positive information about a target as less authentic the more the target controls the information, we should expect people to react differently to negative self-claims that are not perceived as self-benefiting. Why should viewers discount negative self-claims when they believe that the targets do not benefit from making the negative statements about themselves? It is possible, however, for targets to benefit from engendering beliefs in others that they have negative attributes ([Leary, Allen, & Terry, 2011](#)). For instance, people employ many different methods to instill perceptions in others that they are incompetent or lack some seemingly positive quality because it is to their advantage to do so; it might help them get out of work, lull a competitor into complacency, or sever an unwanted relationship (see [McLuhan, Pawluch, Shaffir, & Haas, 2014](#)). However, such tactics can be risky, as they might cause collateral damage ([Leary et al., 2011](#)), especially if they are enacted through highly visible and more permanent channels online. When viewers believe that targets do not benefit from sharing negative information about themselves, viewers have less reason to discount the authenticity of their claims. We expected viewers to be more likely to believe negative self-claims (that are low in warranting value) when the negative claims are not seen as benefiting the target. This expectation specifies a boundary condition of the warranting principle wherein information is viewed as authentic despite having a low degree of warranting value (i.e., a target has control over negative information and viewers do not believe sharing the information benefits the target).

Relative to negative self-claims, viewers might be more inclined to believe that negative third-party claims do actually benefit the third parties who make them. For instance, third parties who post negative comments or reviews online about a target might not be trusted because they can be viewed as having "an axe to grind" ([Metzger, Flanagin, & Medders, 2010](#)). In many online settings, users are able to anonymously or pseudonymously assail others with little fear of repercussion. Conversely, it would take a truly Machiavellian scheme to benefit from anonymous self-slander. In short, third parties might derogate targets online for a variety of reasons: they might find trolling behavior amusing, they might

be seeking revenge against the target in response to a perceived slight or injustice, or they might seek to reap some economic or social advantage by having others think less of a target.

There are, of course, circumstances wherein viewers might not believe that third parties benefit from making negative claims online about a target. For instance, people might interpret a negative online review as simply the honest feedback of a fellow consumer. However, the more viewers believe that third parties personally benefit from instilling negative impressions of a target to other viewers, the more likely they are to discount the third-party claims, even (or perhaps especially) when those third-party claims are high in warranting value. Again, this expectation specifies a boundary condition of the warranting principle wherein information is not viewed as authentic despite having a high degree of warranting value (i.e., a target does not have control over negative third-party information but viewers believe that the third-party benefits from sharing negative information about the target).

To begin testing how perceptions of self-interest relate to predictions outlined by warranting theory, our work examined how source type (self vs. third-party) and message valence (positive or negative) can interact to affect the evaluation of information online. In the context of our experiments, the self/target source is a business owner, whereas the third-party source is the owner of a similar (yet different) business. Under such circumstances, we anticipated that:

H1: (a) People will view a positive claim about the target as benefiting the target more than the third-party. (b) Conversely, a negative claim about the target will be viewed as benefiting the third-party more than the target, as the third-party can be seen as a competitor of the target.

As such, we expected the message source (self vs. third-party) to interact with message valence (positive or negative) to affect how people viewed the degree to which the claim benefited the source and, thus, how accurate they found the claim and how trustworthy they found the source. Specifically, when a claim about a target was positive, we expected viewers to believe the claim benefited the target more than the third-party.

H2: For positive claims, participants will evaluate (a) the third-party claim to be more accurate and (b) the third-party to be more trustworthy, and (c) the third-party claim will be more influential (i.e., lead to a more positive evaluation), relative to the target claim.

Conversely, when a claim about a target is negative, we expected viewers to believe the claim benefited the target less than the third-party.

H3: For negative claims, participants will evaluate (a) the target claim to be more accurate and (b) the target to be more trustworthy, and (c) the target claim will be more influential (i.e., will lead to a more negative evaluation) than the third-party claim.

Above, we hypothesize that, under certain conditions, the source and valence of a message will interact to affect perceptions of self-interest, which will affect three separate outcomes: perceived message accuracy, perceived source trustworthiness, and the evaluation of a target. However, it is not clear from past warranting theory research if the warranting value of a claim affects the evaluation of a target because the claim is perceived to be more/less accurate and/or because the source is perceived to be more/less trustworthy. Further, researchers have not formally established what role, if any, perceptions of self-interest play in such warranting processes. Based on reviewer and editor feedback, we proposed and tested the following research questions:

RQ1: Do the source and valence of a message interact to affect perceptions of self-interest, which influence perceptions of message accuracy, to ultimately affect evaluations of a target?

RQ2: Do the source and valence of a message interact to affect perceptions of self-interest, which influence perceptions of source trustworthiness, to ultimately affect evaluations of a target?

Study 1

Method

Research design overview

A 2 (message valence) \times 2 (message source) online experiment was conducted where participants ($N = 167$) read an online news article about a new business. Participants were randomly assigned to one of four experimental conditions that varied the valence (positive or negative) of a claim about the new business and who produced the quote: the business owner (self) or a nearby business owner (third-party).

Participants

The sample consisted of 167 students from a large Midwestern university in the United States, who received course credit in exchange for their participation. Participants ranged from ages 18 to 37 ($M = 20.11$, $SD = 2.14$) and identified as White/Caucasian ($n = 117$), Black/African American ($n = 18$), Asian/Asian American/Pacific Islander ($n = 17$), Latina/o/Hispanic ($n = 3$), Multiracial ($n = 8$), or Other ($n = 4$). More participants identified as female (66.5%) than male (33.5%).

Stimuli and measures

Across all conditions, participants viewed a brief online news article from a fictitious website called [LocalBites.com](#) about a new restaurant. The post described the restaurant's menu and location, provided a picture of the inside of the restaurant, and included a quote about how successful the business had been in its first month since opening. See Figures 1 and 2 in the Supporting Information for sample stimuli. The message source factor was manipulated by varying who provided a quote in the article about the restaurant. In one condition, the restaurant owner provided a quote about the success of his own business. In the other condition, the owner of a nearby restaurant provided a quote about the success of the new business in town. We were careful never to refer to the third-party source as either a rival/competitor or as a business partner/acquaintance/friend. The name of the message source and all other information was held constant across conditions. Hereafter, we refer to the two sources as the "restaurant owner" and the "nearby business owner." The message valence factor was manipulated through the quote about the restaurant's success in its first month of business. In the positive conditions, the quote indicated that the restaurant exceeded expectations in its first month of business. In the negative conditions, the quote indicated the restaurant struggled in its first month of business.

Message accuracy

Perceived message accuracy was measured with six items on 7-point scales. The stem read "The quote about how the restaurant is doing is . . ." and included the following bipolar adjectives: unbelievable/believable, not convincing/convincing, not credible/credible, inaccurate/accurate, false/true, and incorrect/correct ($\alpha = .95$).

Source trustworthiness

Perceived source trustworthiness was measured with six items on 7-point scales (McCroskey & Teven, 1999). Participants rated the trustworthiness of the source using the following bipolar adjectives:

dishonest/honest, untrustworthy/trustworthy, dishonorable/honorable, immoral/moral, unethical/ethical, and phony/genuine ($\alpha = .98$). We examined both message accuracy and source trustworthiness as outcomes in an attempt to be thorough. We recognize that although perceived message accuracy and source trustworthiness differ conceptually, they are likely to be correlated. Indeed, perceived message accuracy and perceived source trustworthiness were highly correlated ($r = .86$).

Message source self-interest

The perceived self-interest of the message source was assessed with a single item on a 7-point scale (1 = strongly disagree; 7 = strongly agree). The item read: "The [source] benefits from the claim he made about the new restaurant."

Restaurant rating

How participants evaluated the restaurant was measured with three items on 7-point scales (1 = strongly disagree; 7 = strongly agree). Specifically, the items assessed the degree to which the participants perceived the restaurant to be excelling as a local business, well managed, and successful ($\alpha = .88$).

Manipulation check

Participants were asked to correctly identify the message source who was quoted in the online article. Three options were provided: the correct source and two incorrect options. There were 129 participants who correctly identified the source and 38 participants who did not. Participants who responded incorrectly were removed from subsequent analyses. Those who responded correctly did not significantly differ from those who responded incorrectly in any demographic category (age, sex, race) or in how they responded to any of the outcome variables reported below (p -values .277 to .861). The final sample included 86 females (43 males), who identified as White/Caucasian ($n = 97$), Black/African American ($n = 13$), Asian/Asian American/Pacific Islander ($n = 7$), Latina/o/Hispanic ($n = 2$), Multiracial ($n = 7$), or Other ($n = 3$) and ranged in age from 18 to 37 ($M = 20.15$, $SD = 2.29$).

Results

Our analysis plan included three steps. First, we conducted a two-way analysis of variance (ANOVA) to examine whether the message source factor and message valence factor interacted to affect perceptions of message source self-interest as anticipated (H1). Next, because we predicted that the message source and message valence factors would interact to affect perceptions of self-interest and, in turn, the outcome variables, we provided formal tests of moderated mediation for each outcome variable: message accuracy (H2a and H3a), source trustworthiness (H2b and H3b), and restaurant ratings (H2c and H3c). This approach allowed us to directly include the self-interest measure in the causal model and test the predicted relationships. Finally, we estimated conditional, serial mediation paths to explore whether perceived message accuracy (RQ1) or perceived source trustworthiness (RQ2) mediated the effect of perceived self-interest on restaurant ratings. See Tables 1 and 2 in the Supporting Information for a zero-order correlation matrix and means and standard deviations for each variable by condition.

First, we examined whether the message source factor interacted with the message valence factor to affect perceptions of self-interest as expected (H1). A two-way ANOVA indicated a significant interaction effect ($F[1, 125] = 173.72$; $p < .001$; $\eta^2 = .55$) and no main effects. A Tukey HSD post hoc comparison test indicated that when the claim was positive, participants thought the claim benefited the restaurant owner ($M = 6.29$, $SD = 0.84$) significantly more than the nearby business owner ($M = 3.36$, $SD = 1.79$; $p < .001$), supporting H1a. In contrast, when the claim was negative, participants thought

the claim benefited the nearby business owner ($M = 6.21$, $SD = 0.98$) more than the restaurant owner ($M = 2.95$, $SD = 1.52$; $p < .001$), supporting H1b.

Testing H2a and H3a, we examined whether the message source ($X =$ independent variable) and message valence factors ($W =$ moderator) interacted to affect perceptions of self-interest ($M =$ mediator) and, in turn, the perceived message accuracy ($Y =$ dependent variable). Model 7 in PROCESS v3.2 (Hayes, 2017) was used to estimate the conditional, indirect effects. The formal test of moderated mediation was significant (point estimate = 1.40, 95% CI [0.71, 2.10]). The direction of the significant, indirect effects changed depending on whether the message valence condition was positive (point estimate = 0.66, 95% CI [0.31, 1.07]), supporting H2a, or was negative (point estimate = -0.74 , 95% CI [-1.09 , -0.39]), supporting H3a.

Next, to test H2b and H3b, we examined whether the message source (X) and message valence factor (W) interacted to affect perceptions of self-interest (M) and, in turn, perceived source trustworthiness (Y). Model 7 of PROCESS v3.2 (Hayes, 2017) was used to estimate the conditional, indirect effects. The test of moderated mediation was significant (point estimate = 1.70, 95% CI [1.00, 2.43]). The direction of the significant, indirect effects changed depending on whether the message valence condition was positive (point estimate = 0.80, 95% CI [0.44, 1.23]), supporting H2b, or was negative (point estimate = -0.89 , 95% CI [-1.28 , -0.54]), supporting H3b.

To test our final hypotheses (H2c and H3c), we examined whether the message source (X) and message valence factor (W) interacted to affect perceptions of self-interest (M) and, in turn, the restaurant ratings (Y). We used a modified version of Model 7 of PROCESS v3.2 (Hayes, 2017) to estimate the conditional, indirect effects (see Figure 3 in the Supporting Information for a visual depiction). A custom command (/wmatrix 1, 0, 1) allowed the message valence factor to moderate both the X/M relationship and the M/Y relationship. The latter moderation was required because, when the message valence was negative, greater perceived source self-interest was predicted to lead to higher restaurant ratings (i.e., viewers would discount the negative claim), whereas when the message valence was positive, greater perceived source self-interest was expected to lead to lower restaurant ratings (i.e., viewers would discount the positive claim). The test of moderated mediation was significant (point estimate = -0.64 , 95% CI [-1.10 , -0.16]). When the message valence was positive (point estimate = -0.09 , 95% CI [-0.55 , 0.43]), the message source factor did not significantly affect the restaurant rating through perceived source self-interest; support was not obtained for H2c. However, when the message valence was negative (point estimate = 0.55, 95% CI [0.05, 1.01]), the message source factor did significantly affect the restaurant rating through perceived source self-interest; the restaurant was rated lower when the negative claim was produced by the restaurant owner, relative to the nearby business owner, and this effect was mediated by perceived source self-interest, supporting H3c.

Finally, we explored whether conditional, serial mediation occurred. Beginning with RQ1, we tested whether the message source (X) and message valence factors (W) interacted to affect perceptions of self-interest ($M1$), which in turn affected perceived message accuracy ($M2$) and, thus, how the restaurant was rated (Y). We used a modified version of Model 83 of PROCESS v3.2 (Hayes, 2017) to estimate the conditional, serial indirect effects (see Figure 4 in the Supporting Information for a visual depiction). A custom command (/wmatrix 1,0,0,0,1) allowed message valence to also moderate the perceived message accuracy and restaurant rating relationship ($M2/Y$). When the message valence was negative, greater perceived message accuracy was expected to lead to lower ratings; when the message valence was positive, greater perceived message accuracy was expected to lead to higher ratings.

The test of moderated mediation was not significant (point estimate = 0.19, 95% CI [-0.001 , 0.45]). When the message valence was positive (point estimate = 0.31, 95% CI [0.13, 0.55]), the serial indirect

effect was significant. Greater perceived message accuracy, influenced by perceptions of self-interest, led to higher restaurant ratings. When the message valence was negative (point estimate = 0.12, 95% CI [-0.05, 0.32]), the serial indirect effect was not significant. In sum, for the positive message valence condition, we found a significant, serial indirect effect, whereas for the negative valence condition, the serial indirect effect was not significant.

We repeated the above analyses, replacing perceived message accuracy with perceived source trustworthiness (RQ2), again using a modified version of Model 83 of PROCESS v3.2 (Hayes, 2017) to estimate the conditional, serial indirect effects. Specifically, we tested whether the message source (X) and message valence factors (W) interacted to affect perceptions of self-interest (M1), which in turn affected perceived source trustworthiness (M2) and, thus, how the restaurant was rated (Y). The test of moderated mediation was not significant (point estimate = 0.20, 95% CI [-0.01, 0.48]). When the message valence was positive (point estimate = 0.36, 95% CI [0.17, 0.62]), the serial indirect effect was significant. When the message valence was negative (point estimate = 0.15, 95% CI [-0.02, 0.36]), the serial indirect effect was not significant. In sum, for the positive message condition, we found a significant, serial indirect effect, whereas for the negative valence condition, the serial indirect effect was not significant. Complete results of all PROCESS analyses are provided in Tables 3–7 in the Supporting Information.

Discussion

The results indicate that viewers evaluated a negative self-claim made by a target as more accurate, found the target more trustworthy, and rated the restaurant more negatively, relative to when a third-party made the same negative claim. Conversely, viewers evaluated a positive claim made by a third-party as more accurate and found the third-party more trustworthy, relative to when the target made the same positive claim. However, perceptions of self-interest did not directly affect the restaurant rating in the positive condition. The serial mediation models did indicate that, in the positive claim condition, perceptions of self-interest affected perceived message accuracy and perceived source trustworthiness and, ultimately, the restaurant rating. Overall, these findings identify a boundary condition for warranting theory (i.e., when self-claims are perceived to be more accurate and influential than third-party claims) and specify a mechanism for why perceptions of warranting value matter.

Limitations

Our experiment was not without limitations. Notably, it was assumed that participants would view the third-party claims to have a higher degree of warranting value than the target claims. However, perceptions of warranting value were not measured. As such, it is unclear to what degree the warranting principle was falsified in the negative claim condition. We also used a college sample that can call into question the validity and generalizability of the findings (Peterson & Merunka, 2014). To mitigate these limitations, we replicated our experiment with a more diverse sample and formally measured perceptions of warranting value.

Study 2

Method

We conducted a direct replication of Study 1; the stimuli did not change from Study 1 to Study 2. However, we obtained a more diverse sample of participants from Survey Sampling International. We also added and modified some measures as described below.

In an effort to improve our measurement of message accuracy and source trustworthiness, we made some modifications. We reduced our message accuracy variable from six items to three items, keeping the items that focused more on (perceived) objective accuracy (i.e., inaccurate/accurate; false/true; incorrect/correct) and removing the items that were more subjective (e.g., unbelievable/believable). We also replaced the [McCroskey and Teven \(1999\)](#) source trustworthiness scale with the [Ohanian \(1990\)](#) source trustworthiness measure. The two scales contain several identical items; however, the non-redundant items in the former scale (e.g., phony/genuine) appear less applicable to the context of our study than the unique items in the latter scale (e.g., undependable/dependable). Our aim was to improve the face validity of the accuracy and trustworthiness measures while creating a clearer distinction between the two constructs. The updated message accuracy measure ($\alpha = .96$) and the Ohanian trustworthiness scale ($\alpha = .95$) were reliable, as was the unchanged restaurant rating measure ($\alpha = .97$).

We also included the general warranting value scale ([DeAndrea & Carpenter, 2018](#)) to formally assess the perceived warranting value of the source claim. The measure includes four items, measured on 7-point scales that range from very unlikely to very likely. In addition to the original items that assess the perceived likelihood that the target manipulated, influenced, controlled, or shaped the information appearing online, to be robust we also included an item that assessed the likelihood that the target produced the information appearing online ($\alpha = .95$). The additional item we included correlated highly with the original four items (r 's = .65 to .83), had a strong factor loading (.90), and dropping the item would, if anything, have minimally reduced the reliability of the scale ($\alpha = .94$ if item dropped).

We also included a manipulation check for our valence induction. We averaged ($r = .91$) the single item used by [Lee and Koo \(2012\)](#) and the single item used by [Scott and Ravenscroft \(2017\)](#), with the former measuring the perceived success of the business (1 = unsuccessful; 7 = successful) and the latter measuring the perceived positivity of the claim (1 = negative; 7 = positive). As intended, the positive claim ($M = 6.55$, $SD = 0.89$) was rated significantly higher than the negative claim ($M = 3.24$, $SD = 1.44$; $F[1, 224] = 430.14$; $p < .001$; $\eta^2 = .66$).

We also included a validated attention check ([Berinsky, Margolis, & Sances, 2014](#)). Survey Sampling International provided us with a sample of participants who all successfully passed the attention check. As in Study 1, we included a manipulation check to ensure that participants correctly recognized the source of the claim. In Study 2, we included two additional incorrect response options (one correct option and four incorrect options) and also the option to indicate, "I do not remember." Of the 270 participants, 226 passed (83.7%), 38 failed (14.1%), and 6 indicated that they did not remember (2.2%). The analyses only include the 226 participants who responded correctly.

The final sample included 108 females, 113 males, 3 participants who chose "other," and 2 participants who chose not to report their sex. The participants ranged in age from 22 to 85 ($M = 52.21$, $SD = 13.35$) and identified as White/Caucasian ($n = 166$), Black/African American ($n = 25$), Asian/Asian American/Pacific Islander ($n = 9$), Latina/o/Hispanic ($n = 13$), Multiracial ($n = 7$), or Other ($n = 4$), with two participants choosing not to respond. Participants who passed the manipulation check did not differ from those who responded incorrectly in any demographic category (p -values = .31 to .86) or in how they responded to any of the outcome variables reported below (p -values = .07 to .76). See Tables 8 and 9 in the Supporting Information for a zero-order correlation matrix and means and standard deviations for each variable by condition.

Results

Our core analysis plan mirrored the approach used in Study 1. However, we first examined an unchecked assumption from Study 1 regarding whether third-party claims had a higher degree of perceived

warranting value than self-claims. To test this assumption, we conducted a two-way ANOVA with message source and message valence as independent variables and perceived warranting value as the dependent variable. As expected, there was a main effect of message source on perceptions of warranting value, such that third-party claims ($M = 5.21$, $SD = 1.73$), regardless of their valence, had a greater degree of perceived warranting value than self-claims ($M = 2.92$, $SD = 1.24$; $F[1, 220] = 134.98$; $p < .001$; $\eta^2 = .35$). Interestingly, valence also significantly affected perceptions of warranting value, such that negative claims ($M = 4.49$, $SD = 1.87$) had greater warranting value than positive claims ($M = 3.53$, $SD = 1.77$; $F[1, 220] = 18.49$; $p < .001$; $\eta^2 = .05$). There was not a significant interaction ($F[1, 220] = .21$; $p = .650$; $\eta^2 = .001$).

We first examined whether the message source factor interacted with the message valence factor to affect perceptions of self-interest (H1). A two-way ANOVA indicated a significant interaction effect ($F[1, 222] = 107.33$; $p < .001$; $\eta^2 = .32$) and no main effects. A Tukey HSD post hoc comparison test indicated that when the claim was positive, participants thought the claim benefited the restaurant owner ($M = 6.07$, $SD = 1.15$) significantly more than the nearby business owner ($M = 3.67$, $SD = 1.69$; $p < .001$), supporting H1a. In contrast, when the claim was negative, participants thought that the claim benefited the nearby business owner ($M = 5.38$, $SD = 1.24$) more than the restaurant owner ($M = 3.68$, $SD = 1.80$; $p < .001$), supporting H1b.

Next, we tested our predictions (H2a and H3a) that perceptions of self-interest would mediate the effect of the experimental factors on the outcome of perceived message accuracy. Model 7 of PROCESS v3.2 (Hayes, 2017) was used to estimate the conditional indirect effects. The formal test of moderated mediation was significant (point estimate = 0.50, 95% CI [0.09, 0.96]). The direction of the significant, indirect effects changed depending on whether the message valence condition was positive (point estimate = 0.29, 95% CI [0.05, 0.56]), supporting H2a, or was negative (point estimate = -0.21, 95% CI [-0.42, -0.03]), supporting H3a.

Then, we tested our predictions (H2b and H3b) that perceptions of self-interest would mediate the effect of the experimental factors on the outcome of perceived source trustworthiness. The formal test of moderated mediation was significant (point estimate = 0.67, 95% CI [0.22, 1.17]). The direction of the significant, indirect effects changed depending on whether the message valence condition was positive (point estimate = 0.39, 95% CI [0.13, 0.69]), supporting H2b, or was negative (point estimate = -0.28, 95% CI [-0.52, -0.09]), supporting H3b.

Next, we tested our predictions (H2c and H3c) that perceptions of self-interest would mediate the effect of the experimental factors on the restaurant rating. We used a modified version of Model 7 of PROCESS v3.2 (Hayes, 2017) to estimate the conditional, indirect effects (/wmatrix 1, 0, 1). The test of moderated mediation was significant (point estimate = -0.59, 95% CI [-0.95, -0.19]). When the message valence was positive (point estimate = -0.31, 95% CI [-0.62, 0.04]), the message source factor did not significantly affect the restaurant rating through perceived source self-interest; support was not obtained for H2c. However, when the message valence was negative (point estimate = 0.28, 95% CI [0.02, 0.54]), the message source factor did significantly affect the restaurant rating through perceived source self-interest; the restaurant was rated lower when the negative claim was produced by the restaurant owner, relative to the nearby business owner, and this effect was mediated by perceived source self-interest, supporting H3c.

Finally, we explored whether conditional, serial mediation occurred. Beginning with RQ1, we tested whether the message source (X) and message valence factors (W) interacted to affect perceptions of self-interest (M1), which in turn affected perceived message accuracy (M2) and, thus, how the restaurant was rated (Y). We used a modified version of Model 83 of PROCESS v3.2 (Hayes, 2017) to estimate the conditional, serial indirect effects (/wmatrix 1,0,0,0,1). The test of moderated mediation was significant (point estimate = 0.20, 95% CI [0.03, 0.40]). When the message valence was positive

(point estimate = 0.18, 95% CI [0.03, 0.35]), the serial indirect effect was significant. When the message valence was negative (point estimate = -0.03, 95% CI [-0.08, 0.001]), the serial indirect effect was not significant.

We repeated the above analyses, replacing perceived message accuracy with perceived source trustworthiness (RQ2). The formal test of moderated mediation was significant (point estimate = 0.33, 95% CI [0.11, 0.59]). When the message valence was positive (point estimate = 0.27, 95% CI [0.09, 0.49]), the serial indirect effect was significant. When the message valence was negative (point estimate = -0.06, 95% CI [-0.13, -0.01]), the serial indirect effect was also significant. Counterintuitively, greater source trustworthiness (i.e., more trust in a source who makes a negative claim) corresponded with higher restaurant ratings. Complete results of all PROCESS analyses are provided in Tables 10–14 in the Supporting Information.

General discussion

The majority of our results were consistent from Study 1 to Study 2 and supportive of our hypotheses. We observed how the source of a message and the valence of a message can interact to affect perceptions of source self-interest under certain conditions. In the context of our experiment, participants viewed positive claims about a business as benefiting the target (i.e., business owner) more than a third-party (i.e., a neighboring business owner). Conversely, subjects viewed negative claims about the business as benefiting the third-party more than the target. Of primary theoretical concern, differences in perceived self-interest consistently affected how subjects evaluated the accuracy of both positive and negative online messages and the degree to which they found the sources of the messages trustworthy. Furthermore, perceptions of source self-interest directly influenced how participants rated a business in the negative message valence condition. In the positive message condition, perceptions of self-interest did not *directly* affect how subjects evaluated the business. Rather, serial mediation analyses indicated a more indirect effect, such that perceived message accuracy and perceived source trustworthiness mediated the effect of perceived source self-interest on impressions of the business. When the message valence was negative, results of the serial mediation analyses varied from Study 1 to Study 2 and were mostly non-significant.

Theoretical implications

Our study formally tested an explanation for why perceptions of warranting value influence the evaluation of information online, which has previously only received tertiary consideration. By formally considering how perceptions of warranting value relate to perceptions of self-interest, we are able to increase the explanatory and predictive power of warranting theory. Specifically, when people view third parties as benefiting significantly from a negative claim about a target, third-party claims (high in warranting value) should be viewed as less authentic and influential than negative self-claims (low in warranting value) so long as the negative self-claims are not perceived to benefit the target. This explanation can serve as the basis for predicting when the warranting principle should hold.

Similarly, there are many circumstances wherein third parties might be viewed as benefiting as much or almost as much as targets for portraying targets favorably. The more this is the case, the more we should expect positive third-party claims (high in warranting value) to be discounted, perhaps to the same degree as positive self-claims (lower in warranting value). This explanation might help explain why some past warranting research has found either mixed support for the warranting principle, small effects in support of the warranting principle, or varying degrees of support for the warranting principle,

depending on the outcome variable that was assessed (e.g., Rosenthal-Stott et al., 2015; Utz, 2010; Walther et al., 2009). When there is little variance in perceived self-interest between two sources (i.e., self vs. third-party) minimal differences might exist in the degree of influence of each source. In some cases, a third-party friend might not be viewed as an impartial information source and/or viewers might not believe either individual (self or third-party) has a strong motive to convey a particular characteristic (e.g., extroversion or introversion). Furthermore, online platforms might include strong norms for sharing only certain types of information (e.g., positive information; Spottswood & Hancock, 2016), thus muting variance in perceived motives.

Advocating for a greater focus on perceptions of source self-interest in warranting theory does not mean that perceptions of warranting value are unimportant and that people do not seek to understand who is producing, controlling, or influencing information presented to them online. Features of newer media constantly provide people new ways to control, manipulate, and co-create information online. We contend that once judgments about the warranting value of information are made (i.e., viewers discern who is controlling the information they are viewing), viewers can then determine the degree to which the information benefits the perceived source. Accordingly, self-interest perceptions operate in conjunction with perceptions of information control (i.e., warranting value) to guide how people evaluate online claims. Simply put, if information appears to be controlled or manipulated by a source, the more the source is perceived to benefit from the claim, the less influential the claim will be.

Evaluating source motives and the warranting value of information

Theoretically, our arguments suggest that self versus third-party effects are contingent on perceptions of self-interest; the more viewers believe that sources benefit from making others believe their claims (regardless of claim valence), the less authentic they should consider the claims to be. Practically, however, it might be difficult for most viewers to ascribe motives of self-interest to negative self-claims or to detect certain forms of information control. If viewers did ascribe motives of self-interest to negative self-claims, we would expect them to discount the claims, just as they would positive claims. However, it might take additional contextual knowledge for a viewer to understand why targets would benefit from having others view them in ways that are typically seen as negative or, conversely, why targets do not benefit from being viewed as having some favorable attribute. Likewise, certain forms of information control may go undetected when the control of information does not seem likely or self-serving.

Warranting theory is mostly applied to the many real-world circumstances wherein people seek out information online from targets with whom they are not familiar (Lin & Spence, 2018). The lack of contextual information available in such scenarios might make it more challenging for viewers to accurately discern self-interest motives when people employ less intuitive impression management strategies (see McLuhan et al., 2014). Related to strategic impression management, researchers might examine how the perceived affordances of online platforms influence the likelihood that targets employ less common impression management strategies. It is one thing to feign incompetence to gain an advantage when conversing with someone through a channel that affords message ephemerality, but an altogether more brazen strategy to broadcast incompetence online through more visible and recordable channels.

The increasing diversity of online sources might also complicate how people evaluate the motives of sources and the warranting value of online information. A self versus third-party dichotomy clearly does not capture all of the nuance that differentiates online sources. More nuanced classifications of information sources exist (e.g., Sundar & Nass, 2001; Walther & Jang, 2012) and studies have begun to compare their distinct degrees of influence (e.g., Flanagin & Metzger, 2013). Future work will also have to account for various technological sources and artificial entities that appear online. Existing

research has examined how people respond differently to technology and artificial agents depending on certain characteristics, such as their degree of anthropomorphism or behavioral realism (Krämer, Rosenthal-von der Pütten, & Hoffmann, 2015). However, it is unclear how people might perceive the warranting value of information produced by computer algorithms or other non-human entities. Further, does it make sense to consider the motives of artificial entities or does it make sense to consider the motives of their programmers? Future work might address these and related questions.

A strength of Study 2 was that we directly measured perceptions of warranting value to ensure that third-party claims were viewed as having a greater degree of warranting value than self-claims. No studies, to our knowledge, have previously measured perceptions of warranting value when comparing the relative influence of self-claims and third-party claims. Beyond confirming the role of a causal mechanism, there are other benefits that might stem from directly measuring perceptions of warranting value, such as identifying a greater array of antecedent factors. For instance, the results in our study suggest that the valence of a message can influence perceptions of its warranting value.

Limitations and future directions

The current work has notable limitations worth mentioning. One limitation is that our studies took place in a single context and used one particular set of stimuli. Future work should employ different stimuli to test the generalizability of the current findings. Another limitation is that we selected a third-party source that could easily be viewed as a competitor, especially in the negative message condition. As such, it is likely that we obtained greater variability in perceptions of self-interest across sources than what might occur in other circumstances, especially when considering that similar past work has studied third-party sources that were neutral (e.g., online reviewers) or even congenial (e.g., Facebook friends) to the target. Another limitation was that the positive message was perceived to be more positive than the negative message was negative. Our primary concern was to hold the content of our positive and negative messages constant across conditions while ensuring that the negative message was something that both a target and a third-party would plausibly post online.

Moving forward, it will be helpful to further explore why perceptions of self-interest affected the evaluation of the target differently in this study across the positive and negative message valence conditions. In the negative claim condition, perceptions of self-interest directly affected the evaluation of the target, as expected. However, this did not occur in the positive claim condition (H2c was not supported in either study). Rather, serial mediation results indicated that (when the claim was positive) perceptions of self-interest affected how participants rated the target through perceptions of message accuracy and source trustworthiness. Why might perceptions of self-interest affect evaluations of a target more or less directly depending on the valence of the claim made about a target? Perhaps, in this study, the extremity of the positive claim, the consistency of the positive claim with other available information (e.g., the description of the restaurant), and/or the consistency of the positive claim with source expectations (i.e., business owners are expected to promote their businesses) caused perceptions of self-interest to have a more indirect effect on the overall target evaluation. Future work is needed to tease apart the degree to which perceptions of source characteristics (e.g., self-interest; trustworthiness) and message characteristics (e.g., warranting value; accuracy) affect one another and, ultimately, influence the evaluation of information online.

Conclusion

Our study extends research on self versus third-party effects online and predictions of warranting theory by demonstrating that perceptions of self-interest meaningfully influence the evaluation of online

claims. As online platforms host multiple information sources, viewers are tasked with interpreting different types of sources and claims simultaneously. It is not only important to know who produces or controls a piece of information, but also what they might stand to gain from the production or control of such information.

Supporting Information

Additional Supporting Information may be found in the online version of this article.

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References

- Berinsky, A. J., Margolis, M. F., & Sances, M. W. (2014). Separating the shirkers from the workers? Making sure respondents pay attention on self-administered surveys. *American Journal of Political Science*, 58, 739–753. doi:10.1111/ajps.12081
- Boerman, S. C. (2014). *“This program contains product placement”: Effects of sponsorship disclosure on television viewers’ responses*. Amsterdam, The Netherlands: Universiteit van Amsterdam.
- Brandt, A. C., Vonk, R., & van Knippenberg, A. (2009). The source effect: Person descriptions by self versus others have differential effects on impression formation. *Personality and Social Psychology Bulletin*, 35, 965–977. doi:10.1177/0146167209335056
- Brandt, A. C., Vonk, R., & van Knippenberg, A. (2011). Augmentation and discounting in impressions of targets described by third parties with ulterior motives. *Social Cognition*, 29, 210–220. doi:10.1521/soco.2011.29.2.210
- Carr, C. T., Hall, R. D., Mason, A. J., & Varney, E. J. (2017). Cueing employability in the gig economy: Effects of task-relevant and task-irrelevant information on Fiverr. *Management Communication Quarterly*, 31, 409–428. doi:10.1177/0893318916687397
- Critcher, C. R., & Dunning, D. (2011). No good deed goes unquestioned: Cynical reconstruals maintain belief in the power of self-interest. *Journal of Experimental Social Psychology*, 47, 1207–1213. doi:10.1016/j.jesp.2011.05.001
- DeAndrea, D. C. (2014). Advancing warranting theory. *Communication Theory*, 24, 186–204. doi:10.1111/comt.12033
- DeAndrea, D. C., & Carpenter, C. J. (2018). Measuring the construct of warranting value and testing warranting theory. *Communication Research*, 45, 1193–1215. doi:10.1177/0093650216644022
- DeAndrea, D. C., Van Der Heide, B., Vendemia, M. A., & Vang, M. H. (2018). How people evaluate online reviews. *Communication Research*, 45, 719–736. doi:10.1177/0093650215573862
- DeAndrea, D. C., & Vendemia, M. A. (2016). How affiliation disclosure and control over user-generated comments affects consumer health knowledge and behavior: A randomized controlled experiment of pharmaceutical direct to consumer advertising (DTCA) on social media. *Journal of Medical Internet Research*, 18, e189. doi:10.2196/jmir.5972
- Flanagin, A. J., & Metzger, M. J. (2013). Trusting expert- versus user-generated ratings online: The role of information volume, valence, and consumer characteristics. *Computers in Human Behavior*, 29, 1626–1634. doi:10.1016/j.chb.2013.02.001
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). New York, NY: Guilford Press.

- Krämer, N. C., Rosenthal-von der Pütten, A., & Hoffmann, L. (2015). Social effects of virtual and robot companions. In S. S. Sundar (Ed.), *The handbook of the psychology of communication technology* (pp. 137–159). Malden, MA: John Wiley & Sons, Inc.
- Leary, M. R., Allen, A. B., & Terry, M. L. (2011). Managing social images in naturalistic versus laboratory settings: Implications for understanding and studying self-presentation. *European Journal of Social Psychology*, 41, 411–421. doi:10.1002/ejsp.813
- Lee, K. T., & Koo, D. M. (2012). Effects of attribute and valence of e-WOM on message adoption: Moderating roles of subjective knowledge and regulatory focus. *Computers in Human Behavior*, 28, 1974–1984. doi:10.1016/j.chb.2012.05.018
- Lew, Z., & Walther, J. B. (2017, May). *Authenticity of an online communicator: Toward an integration of credibility and warranting theory*. Paper presented at the 67th Annual Meeting of the International Communication Association, San Diego, CA.
- Lin, X., & Spence, P. R. (2018). Identity on social networks as a cue: Identity, retweets, and credibility. *Communication Studies*, 69, 461–482. doi:10.1080/10510974.2018.1489295
- Luca, M., & Zervas, G. (2016). Fake it till you make it: Reputation, competition, and Yelp review fraud. *Management Science*, 62, 3412–3427. doi:10.1287/mnsc.2015.2304
- McCroskey, J. C., & Teven, J. J. (1999). Goodwill: A reexamination of the construct and its measurement. *Communication Monographs*, 66, 90–103. doi:10.1080/03637759909376464
- McLuhan, A., Pawluch, D., Shaffir, W., & Haas, J. (2014). The cloak of incompetence: A neglected concept in the sociology of everyday life. *The American Sociologist*, 45, 361–387. doi:10.1007/s12108-014-9240-y
- Metzger, M. J., Flanagin, A. J., & Medders, R. B. (2010). Social and heuristic approaches to credibility evaluation online. *Journal of Communication*, 60, 413–439. doi:10.1111/j.1460-2466.2010.01488.x
- Ohanian, R. (1990). Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. *Journal of Advertising*, 19, 39–52. doi:10.1080/00913367.1990.10673191
- Parks, M. R. (2011). Boundary conditions for the application of three theories of computer-mediated communication to MySpace. *Journal of Communication*, 61, 557–574. doi:10.1111/j.1460-2466.2011.01569.x
- Peterson, R. A., & Merunka, D. R. (2014). Convenience samples of college students and research reproducibility. *Journal of Business Research*, 67, 1035–1041. doi:10.1016/j.jbusres.2013.08.010
- Pfeffer, J., Fong, C. T., Cialdini, R. B., & Portnoy, R. R. (2006). Overcoming the self-promotion dilemma: Interpersonal attraction and extra help as a consequence of who sings one's praises. *Personality and Social Psychology Bulletin*, 32, 1362–1374. doi:10.1177/0146167206290337
- Rosenthal-Stott, H. E., Dicks, R. E., & Fielding, L. S. (2015). The valence of self-generated (status updates) and other-generated (wall-posts) information determines impression formation on Facebook. *PLOS One*, 10, e0125064. doi:10.1371/journal.pone.0125064
- Schlenker, B. R., & Britt, T. W. (1999). Beneficial impression management: Strategically controlling information to help friends. *Journal of Personality and Social Psychology*, 76, 559–573. doi:10.1037/0022-3514.76.4.559
- Schlenker, B. R., & Britt, T. W. (2001). Strategically controlling information to help friends: Effects of empathy and friendship strength on beneficial impression management. *Journal of Experimental Social Psychology*, 37, 357–372. doi:10.1006/jesp.2000.1454
- Scott, G. G., & Ravenscroft, K. (2017). Bragging on Facebook: The interaction of content source and focus in online impression formation. *Cyberpsychology, Behavior, and Social Networking*, 20, 58–63. doi:10.1089/cyber.2016.0311

- Spottswood, E. L., & Hancock, J. T. (2016). The positivity bias and prosocial deception on Facebook. *Computers in Human Behavior*, 65, 252–259. doi:[10.1016/j.chb.2016.08.019](https://doi.org/10.1016/j.chb.2016.08.019)
- Sundar, S. S., & Nass, C. (2001). Conceptualizing sources in online news. *Journal of Communication*, 51, 52–72. doi:[10.1111/j.1460-2466.2001.tb02872.x](https://doi.org/10.1111/j.1460-2466.2001.tb02872.x)
- Utz, S. (2010). Show me your friends and I will tell you what type of person you are: How one's profile, number of friends, and type of friends influence impression formation on social network sites. *Journal of Computer-Mediated Communication*, 15, 314–335. doi:[10.1111/j.1083-6101.2010.01522.x](https://doi.org/10.1111/j.1083-6101.2010.01522.x)
- Walther, J. B., & Jang, J. (2012). Communication processes in participatory websites. *Journal of Computer-Mediated Communication*, 18, 2–15. doi:[10.1111/j.1083-6101.2012.01592.x](https://doi.org/10.1111/j.1083-6101.2012.01592.x)
- Walther, J. B., & Parks, M. R. (2002). Cues filtered out, cues filtered in: Computer-mediated communication and relationships. In M. L. Knapp & J. A. Daly (Eds.), *Handbook of interpersonal communication* (3rd ed., pp. 529–563). Thousand Oaks, CA: Sage.
- Walther, J. B., Van Der Heide, B., Hamel, L., & Shulman, H. (2009). Self-generated versus other-generated statements and impressions in computer-mediated communication: A test of warranting theory using Facebook. *Communication Research*, 36, 229–253. doi:[10.1177/0093650208330251](https://doi.org/10.1177/0093650208330251)