

Are Critics More Credible? When Positivity is Expected, Negative Reviewers are Perceived to
be Less Credible

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ABSTRACT

When writing a review, influencers market their credibility – a critical antecedent to consumers' attitudes towards reviewers, reviews, and brands. This research examines how consumer reviews shape source credibility and subsequent word-of-mouth (WOM) of influencers. Nineteen studies ($N = 7,330$), across several product categories and situations, provide consistent support that consumers perceive negative reviewers as less credible than positive reviewers due to an expectancy-violation of social norms: negativity violates prior expectations for positive reviews. Study 1 finds that while a negative review is viewed as more helpful, consumers also perceive the reviewer as less credible. Studies 2-5 test the expectancy-violation account, finding that the effect is mediated by social norms (study 2), is mitigated when consumers have ambiguous prior expectations, and reverses when consumers have negative prior expectations (studies 3-5). Studies 7A-7I replicate this effect across many domains. This reduced credibility has downstream consequences, decreasing consumers' willingness to follow a recommendation and a source on social media (studies 6A and 6B). While criticism may be intended to damage a brand and/or to help other consumers, this research finds it hinders WOM and the credibility of a reviewer/influencer. Thus, critics are less credible, and have less influence, when positivity is expected.

Consumers' attitudes toward products and brands are influenced by the opinions of others (Cialdini and Goldstein 2004; Schlosser 2005), and an increasingly prevalent form of such social influence is reviews from other consumers (Chen and Xie 2008; Godes and Mayzlin 2004). These reviewers often seek to become professional reviewers, or "influencers," which is one of the most sought-after professions of young Americans (Higher Visibility 2022). Reviews provide influence and credibility for reviewers, as well as information about a product's features, quality, and performance. As a result, almost every consumer reads reviews before making a purchase (Murphy 2019) and considers online reviews to be important (Smith 2013). Perhaps because of this fact, the literature on online reviews has examined what motivates people to write reviews (Berger and Iyengar 2013; Berger and Schwartz 2011; Cheema and Kaikati 2010; Packard and Wooten 2013) and the impact of online reviews on sales (e.g., Basuroy, Chatterjee, and Ravid 2003; Berger, Sorensen, and Rasmussen 2010; Chevalier and Mayzlin 2006; Liu 2006).

This previous research has also demonstrated that a negative review is often more helpful than a positive review (Baek, Ahn, and Choi 2012; Schlosser 2011), but how do these negative reviews affect the credibility of the people who write them – the reviewer? Do negative reviews help build further trust and credibility, or do they hurt a reviewer's ability to have subsequent influence? These are important questions because reviewers and consumers value the credibility of reviewers, and there are often too many reviews for consumers to process. As a consequence, consumers often look for a small set of reviews from credible sources, such as influencers or popular reviewers, to judge product quality. Thus, to help marketers and reviewers, we answer these questions and investigate the role negativity plays in source credibility perceptions of consumer reviewers.

Source credibility, or a source's overall believability, is the combination of expertise and trustworthiness (Petty and Cacioppo ; Petty and Wegener 1998), and a large literature has demonstrated that it has important implications for consumers' attitudes, belief formation, and consumption decisions (e.g., Chaiken and Maheswaran 1994; Sternthal, Dholakia, and Leavitt 1978). Generally, the same message is more persuasive when the source of the message is perceived to be more credible. One way to achieve higher credibility perceptions is to use credentials. For example, marketers may feature people in a white lab coat, use badges on profiles, or use athletes to signal greater credibility.

In this research, we propose and provide evidence that the credibility of a reviewer is systematically influenced by the message itself, specifically its valence. Using the expectancy-violation theory framework (Burgoon 1993, 2015), we propose and find support that the effect of review valence on reviewer credibility is due to consumers expecting reviews to be positive in most situations. In limited situations where consumers have ambiguous expectations or expect negative reviews, credibility is not damaged, consistent with the expectancy-violation theory. In nineteen studies, we find support for this prediction across ten product/service categories with varying ratings (see Table 1 for an overview). Interestingly, and consistent with prior research, this decrease in reviewer credibility is independent of the fact that consumers still find the review more helpful.

By focusing on what predicts credibility perceptions of the reviewers themselves, these findings provide important marketing insights and contribute to consumer theory on persuasion, source credibility, and WOM. Whereas existing literature has largely focused on how a review's credibility is affected by source credibility (e.g., Baek et al. 2012; Cheung, Luo, Sia, and Chen 2009; Cheung, Sia, and Kuan 2012), message valence (e.g., Kusumasondjaja, Shanka, and

Marchegiani 2012; Lim and Heide 2014; Qiu, Pang, and Lim 2012; Sen and Lerman 2007), or an individual review rating (e.g., Jiménez and Mendoza 2013; Qiu et al. 2012; Yin, Mitra, and Zhang 2016), we focus on how consumers judge the credibility of a *reviewer*, which further influences how consumers use reviews and follow reviewers/influencers. While there have been a few attempts to examine source credibility as an outcome (e.g., Jensen, Averbeck, Zhang, and Wright 2013; Munzel 2016), these were based on only one or two studies that are underpowered to test valence, with an average sample size per condition of around 30. We present more convincing evidence – with pre-registered, high-powered studies across multiple product and service categories and star ratings – examining when and why the valence of the review affects the credibility of the reviewer.

In addition, we examine an antecedent to source credibility, showing how the incongruency between the valence of a message and consumers' prior expectations can shape source credibility perceptions. In past literature, source credibility and message valence are treated as independent factors affecting persuasion. However, we demonstrate that this is not necessarily the case when consumers have prior expectations for positive messages. From a managerial standpoint, our findings reiterate the importance of establishing expectations for positive reviews (Park, Shin, and Xie 2021) and that reviewers may take some of the reputational damage from a negative review. The findings also help us understand another motivation for why influencers provide positive reviews. Finally, for opinion leaders, influencers, and critics, the results suggest that negativity can make a review more helpful, but it come at the cost of one's reputation. When followers and consumers expect positive reviews – which seems to be the norm – a negative review can damage an influencer's reputation.

CONCEPTUAL BACKGROUND

Source credibility refers to the perception of a message source's ability or motivation to provide accurate, truthful information (Hovland, Janis, and Kelley 1953; Petty and Cacioppo ; Petty and Wegener 1998). That is, a message's source is considered credible if they are an expert (Rhine and Severance 1970) and trustworthy (Mills and Jellison 1967). More recent work finds that bias, which is a motivational state to hold a position, is also a unique contributor to source credibility and persuasion (Wallace, Wegener, and Petty 2020a, 2020b). Source credibility has long been of interest to consumer researchers (e.g., Erdem and Swait 2004; Grewal, Gotlieb, and Marmorstein 1994; Petty, Cacioppo, and Schumann 1983; Priester and Petty 2003; Sternthal et al. 1978; Tormala and Petty 2004). In general, more credible sources are more persuasive than less credible sources (see Petty and Wegener 1998 for a review).

Traditionally, source credibility and message valence are two independent factors that affect message persuasion. However, given the extensive research on valence asymmetries (Baumeister et al., 2001; Fazio et al., 2015), it is possible that the message valence itself could affect credibility, which we discuss next.

Review Valence and Negativity Bias

Existing theories on negativity bias (Baumeister et al. 2001; Rozin and Royzman 2001) and consumer expertise (Alba and Hutchinson 1987; Bettman and Sujan 1987) suggest that consumers might perceive negative reviewers to be more credible. For instance, negative information is more diagnostic (Herr, Kardes, and Kim 1991; Mizerski 1982) and consumers pay much more attention to, and have better memory for, negative information than to positive (Fiske 1980; Pratto and John 1991). Further, when it comes to the review itself, consumers tend to perceive a negative review to be more useful and more helpful than a positive review (Chen and Lurie 2013; Chevalier and Mayzlin 2006; Herr et al. 1991; Mizerski 1982).

In terms of consumer expertise, expert consumers have greater knowledge and higher standards, which can help them discriminate among various qualities in a product (Alba and Hutchinson 1987; Bettman and Sujaan 1987). Perhaps due to these discerning tastes, experts in the arts have a higher bar for funding decisions than the average population (Mollick and Nanda 2016).¹ Given that consumers draw on theory to make inferences (Broniarczyk and Alba 1994), consumers may affirm the consequence, drawing the reverse inference: If a reviewer is negative, then the reviewer is an expert. However, this inference is unlikely given that it requires higher-order theoretical reasoning, and it is unlikely consumers process reviewers at such a high level.

Expectations, Social Norms, and Source Credibility

Another way to theorize about inferences from negativity is to examine research from communications and persuasion, where violating a communication norm triggers an attributional process focused on the source's character. According to expectancy-violation theory (Burgoon 1993, 2015), consumers have strong, socially learned expectations about the behaviors and communication patterns of others. These expectations can be norm-based, such as politeness norms and positivity norms in online reviews, or idiosyncratic, such as personal experience with the communicator or the context. When communications – such as in-person conversations or, in our case, online reviews – violate expectations, recipients heighten their attention, try to understand the violation, and determine whether it signals something meaningful about the communicator (Burgoon 1993; 2005). That is, recipients engage in an attributional process to

¹ In an investigation into the credibility of digital camera reviews (N=231), Jensen et al. (2013) also found evidence that providing negative information (i.e., two-sided messaging) to a positive digital camera review increased reviewer credibility. However, they suggested that consumers base their judgments of a reviewer on Language Expectancy Theory (Burgoon 1995), which we discuss. We should also note that this finding could be due to expectancy-violation or the effectiveness of two-sided messaging (e.g., Crowley and Hoyer 1994), which we test.

understand the inconsistent communication (Heider 1958; Kelly 1973; Lacznia, DeCarlo, and Ramaswami 2001; Ross and Nisbett 1991), such that a violation may prompt people to wonder whether this reviewer is overly critical, has ulterior motives, or experienced the product in a proper way.

In the context of online reviews, this means that if consumers have a prior expectation that reviews will be positive, a negative review would violate this expectation and heighten attention. This violation shifts the consumer's focus from the content of the review ("What is this product like?") to the character of the reviewer ("What is this person like?"). This shift prompts an attributional search to understand the cause of the expectation-violating, non-normative behavior. Rather than being seen as simply providing inconsistent information, the source of that information would be devalued.

There is also evidence that consumers tend to follow social norms of politeness and positivity, especially when writing online reviews because reviewers have time to reflect, construct, refine, and edit their reviews (Berger 2014; Berger and Iyengar 2013). Indeed, the norm for consumer reviews is positive, with the majority of review ratings giving four or five stars (e.g., 72.7%, Kupor and Tormala 2018). For example, 68% of Yelp reviews are either four or five stars (Yelp 2020), suggesting that consumers expect positive reviews most of the time. Similarly, reviews on Amazon tend to be overwhelmingly positive in general. While the overall distribution of star ratings on Amazon is not publicly available and may vary depending on the product category, many products have a majority of 5-star reviews, with a smaller number of 4-star, 3-star, 2-star, and 1-star reviews. It is not uncommon for products to have 80-90% 5-star reviews, with only a small percentage of the remaining ratings. From an expectations and impression management perspective, the prevalence of positive reviews creates a frame of

references against which consumers make comparative judgments of a review and its source; thus, negative reviews may be seen as violating this norm, casting doubt on the reviewer's credibility.

It is also important to distinguish our expectancy-violation framework from the broader concept of confirmation bias (Nickerson 1998). While both theories involve prior expectations, they posit different underlying psychological processes. Confirmation bias primarily describes a process of information search (people tend to search for confirming information) and processing (people tend to focus on and overweigh confirmatory information while ignoring disconfirming data; Ditto and Lopez 1992). In contrast, the expectancy-violation framework describes a process of social judgment and attribution (Burgoon 1993; 2015). When an expectation is violated, it does more than just create informational dissonance. It shifts the observer's attention from the message to the source, initiating an attributional search to understand why the person behaved in an unexpected way (Laczniak et al. . The outcome, therefore, is not that the dissonant review is ignored, but that a negative attribution is formed about the reviewer's character.

Thus, we predict that a negative review will violate communication expectations in a negative direction (i.e., a negative violation), leading consumers to perceive negative reviewers as less credible than positive reviewers. We also predict that these perceptions of source credibility of the reviewer will be independent of the helpfulness of the review itself.

Ambiguous Expectations, Negative Expectations, and Expectation Variability

One way to examine this expectancy violation account is to explore some of the special situations where consumers may expect negative reviews or have more ambiguous expectations. In these situations, negative reviews may not trigger the same attributional suspicion because they are congruent with expectations. However, for positive reviews in these situations, the

expectancy-violation framework is less clear about how consumers would respond. In some situations, expectancy-violation theory posits that violations in the positive direction (i.e., when a communicator has negative expectations, but the violation is in the positive direction) can still lead to positive feelings (Burgoon 1993; 2015). However, when consumers expect negative communications but a person is positive, consumers grow suspicious and view it as a persuasion attempt (Friestad and Wright 1994; Moore and Lafreniere 2020). Thus, when violations are unambiguously positive (i.e., a positive review when a negative review is expected), we predict that a positive review will actually decrease perceptions of reviewer credibility.

In some situations, consumers expect more variability, which should lead to more ambiguous expectations and less negative reaction to violations. For example, an unknown brand or a business with mixed reviews can lead consumers to expect both positive and negative reviews as they tend to have only a few reviews or both positive and negative reviews. Service quality, for example, is known to have more variability than product quality, where quality can be better controlled and monitored (Kotler and Armstrong 2017). Thus, according to the expectancy-violation framework, we would expect the effect of review valence on source credibility perceptions to be mitigated in ambiguous or high variability situations.

Downstream Consequences: Social Perception of a Reviewer

When consumers perceive a reviewer as less credible, it can also influence other social perceptions of the reviewer, such as competence, warmth, and likability. As source credibility includes expertise in its conceptualization (Hovland et al. 1953; Petty and Cacioppo 1981; Petty and Wegener 1998), credibility perceptions directly contribute to perceptions of competence. Credibility, especially expertise, enhances perceived capability and effectiveness. Indeed, expert witnesses who are high in credibility due to their knowledge and expertise are perceived as more

competent (Moscarini 2007; Neal et al. 2012). In addition, according to the stereotype content model (Fiske, Cuddy, Glick, and Xu 2002), likability and trustworthiness are both a part of warmth perceptions. Further, when a source is deemed credible, it can be seen as having benevolent intentions towards others, which increases perceptions of warmth (Aaker, Vohs, and Mogilner 2010). Thus, we predict that the decrease in credibility perceptions formed by a negative review will decrease social perceptions, such as competence, warmth, and likability.

Downstream Consequences: Influencers and Following a Reviewer

Source credibility is an important component to persuasion (e.g., Petty and Cacioppo 1981; Petty et al. 1983; Priester and Petty 2003), and it is likely that these negative credibility perceptions will decrease consumers' willingness to follow a reviewer in other domains and recommendations. Since source credibility refers to the perception of a message source's ability or motivation to provide accurate, truthful information (Hovland et al. 1953; Petty and Cacioppo ; Petty and Wegener 1998), consumers should be more likely to follow more credible sources than less credible ones. For instance, an influencer who provides negative reviews about a hiking trail will be perceived as less credible than someone leaving a positive review. To the extent that more credible sources are more persuasive, we should also expect that these credibility perceptions formed by a review will influence consumers' willingness to follow the reviewer on social media and future recommendations. Thus, we predict that credibility perceptions will carry over to (and mediate) consumers' willingness to follow a reviewer/influencer's recommendation on a different product and to follow this reviewer/influencer on social media.

OVERVIEW OF STUDIES

We test our predictions across different product categories and situations (Table 1 provides an overview of the studies) and across nineteen studies – seven of which test the effect and the expectancy violation process (studies 1- 6B) and ten of which test robustness of the effect in different categories and situations (studies 7A-7I). In addition, we report a pilot study to test our assumptions regarding social norms of reviews. Study 1 finds that reviewers leaving negative reviews are perceived to be less credible than those leaving positive reviews; yet, it also finds that the negative reviews are viewed as more useful than the positive reviews. Study 2 tests the expectancy-violation account, finding that the effect is mediated by the norm violation perception (above and beyond positive and negative affect). Study 3, 4, and 5 test the expectancy-violation account through moderation, finding that the effect is mitigated when consumers do not have a clear expectation and is reversed when consumers expect a negative review. Study 6A and 6B demonstrate the downstream consequences of credibility perception. Studies 7A through 7I test the robustness of the effect across different situations and product categories, and we report all studies in our “file drawer.” We find that the effect replicates across both hedonic and utilitarian products, different goals for reading reviews, decision stages, complex and simple products, different reviewer credentials, and fake review concerns. Further, we report a single-paper meta-analysis, a P-curve analysis, and a text analysis to rule out differences in sentiment across reviews. We report all studies, conditions, measures, data exclusions, and sample size determinations. All materials are available via OSF (https://osf.io/m9vaw/?view_only=4a2aa602158047d8947b0e1f355a9a67).

Table 1. Study Overview: Target Product, Review Star Ratings, Sample, Effects, and Measurement Items

Study	Target Product(s)	Review Star Ratings	Moderator/Mediator	Sample	Credibility Mean (SD)		Credibility Measure
					Negative reviewer	Positive reviewer	
1	Vacuum	4 vs. 2	Reviewer Credibility vs. Review Helpfulness	279 (UGs)	Reviewer: 4.03 (.84) Review: 5.86 (1.00)	Reviewer: 4.38 (0.80)* Review: 5.51 (.99)*	1,2,3,4
2	Hiking trail	4 vs. 2	Norm Violation Perception	570 (Connect)	3.98 (1.21)	5.47 (1.02)***	2,3,4
3	Vacuum	5 vs. 2	Expectations (Baseline vs. Ambiguous)	200 (Mturk)	Baseline: 3.60 (1.24) Ambiguous: 4.22 (1.17)	Baseline: 4.41 (1.05)*** Ambiguous: 4.07 (1.07)	1,4,6
4	Restaurant	5 vs. 1	Prior Expectations (Low vs. Ambiguous vs. High)	685 (Mturk)	Low: 5.00 (1.03) Ambiguous: 4.95 (0.94) High: 4.63 (1.10)	Low: 4.17 (1.38)*** Ambiguous: 4.95 (1.14) High: 5.06 (1.06)**	1,2,3,4,5
5 ¹	Restaurant Low expectation variability: Food High expectation variability: Service	5 vs. 1	Expectation Variability (Low vs. High)	621 (UGs)	Low: 4.46 (1.00) High: 4.18 (0.86)	Low: 3.45 (1.33) *** High: 3.73 (1.11) ***	1,2,3,4,5
6A	Hiking trail	4 vs. 2	N/A	420 (UGs)	3.61 (1.10)	4.47 (0.93)***	1,2,3,4,5
6B	Hiking trail	4 vs. 2	N/A	501 (Mturk)	3.87 (1.48)	5.18 (0.96)***	1,2,3,4,5
7A	Wine	5 vs. 2	Product Choice (by reviewer vs. not by reviewer)	605 (Mturk)	4.96 (1.16)	5.17 (0.97)*	1,4,5,6,7
7B	Hiking trail	4 vs. 2	Credential (Present vs. Absent)	254 (UGs)	4.38 (1.32)	5.07 (1.07)***	1,2,4,5,6
7C-1	Hedonic: Wine, Chocolate, Movie Utilitarian: Scale, Thermometer, Vacuum	5 vs. 2	Product Type (Utilitarian vs. Hedonic)	404 (Mturk)	4.57	4.94***	1,4,6
7C-2				403 (Mturk)	4.34	4.71***	
7D	Blender	5 vs. 1	Product Complexity (Simple vs. Complex)	602 (Mturk)	4.46 (1.10)	5.06 (0.89)***	1,2,4,5,8
7E	Vacuum	5 vs. 2	Decision Stage (Early vs. Late)	321 (UGs)	3.73 (1.13)	4.42 (1.10)***	1,4,5,6,7
7F	Blender	5 vs. 1	Fake review concern (Present vs. Control)	398 (Prolific)	4.27 (1.16)	4.76 (1.09)***	1,2,3,4,5
7G	Blender	5 vs. 1	Goal (Choose vs. Avoid)	217 (UGs)	3.88 (1.07)	4.44 (0.95)***	1,2,3,4,5
7H (file drawer)	Scale	5 vs. 2	Membership tenure (Short vs. Long)	297 (UGs)	4.12 (0.78)	4.24 (0.81)	1,2,4,5,8
7I	Hiking trail	4 vs. 2	Surprise	370 (UGs)	3.58 (1.04)	4.41 (0.94)***	1,2,3,4,5

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. Credibility measure items: To what extent do you think s/he is (has)... 1. an expert? 2. credible? 3. unbiased? 4. trustworthy? 5. honest? 6. knowledgeable? 7. a lot of experiences? 8. biased (reversed)? ¹The prior expectation was manipulated to be negative in all conditions in this study.

VALIDATION STUDY: RATING NORMS

In this validation study, we tested the validity of two parts of our theorization. First, we tested whether consumers, in general, rate their purchases positively. Second, we tested whether consumers see it as a norm to provide a rating that is similar to what others have provided. Both tests would provide evidence that positivity is the norm and that consumers tend to follow this norm when rating their recent purchases. The study's pre-registration can be found at [<https://aspredicted.org/dwhs-m46j.pdf>].

Method

Participants. We recruited 400 US-based Mturk workers via CloudResearch's approved participant list, and 366 participated. After excluding 10 participants who either did not complete the study or put in unrealistic numbers (e.g., a star rating of 78-star), 356 remained ($M_{\text{age}} = 42.43$, 45.79% female).

Procedure. The study was a 2 cell (social norm: control vs. present) between subjects design. Participants were asked to recall a recent online purchase. In the control condition, participants were asked to give their own star rating of their purchase ("own rating"), which served as the main dependent variable. On the next screen, they were asked to provide the link to the product page, the average rating of the product ("average rating"), and the number of reviews of the product. In the social norm condition, the order was reversed so that they viewed and reported the average rating of the product first before providing their own product rating. Specifically, participants were asked to provide the link to the product page, the average rating of the product, and the number of reviews of the product. Then, on the next page, they were asked to provide their own rating of their purchase.

Results

We noticed that there were nine responses in which the products had an average rating of zero (five in the control condition and four in the social norm condition). After checking the product pages, we confirmed that these products had no ratings. Because we cannot test whether their own ratings are more or less influenced by the existing ratings, we excluded these responses from our main analysis. Nevertheless, we will also report the results without excluding these responses, as pre-registered.

Norm of Positivity. The mean of the average ratings of the products was 4.44 and the median was 4.5. Looking at the distribution, 97.12% of the average product ratings were 4.0 or higher. When we include the nine responses whose average rating was zero, the mean was 4.32, with the median 4.5, and 94.66% of the average product ratings were 4.0 or higher.

Linear regression. We regressed the social norm condition, the products' average rating, and their interaction on participants' own ratings, and we found a significant interaction ($b = .21$, $SE = .07$, $t = 3.03$, $p = .003$). The relationship between the average rating and their own rating was significantly larger in the social norm condition ($b = .83$, $SE = .10$, $t = 7.93$, $p < .001$, 95% $CI = [.62, 1.02]$) than the control condition ($b = .40$, $SE = .09$, $t = 4.35$, $p < .001$, 95% $CI = [.22, .58]$). The pre-registered analysis, where we do not exclude the nine responses where the average ratings was zero, showed similar results (interaction: $b = .09$, $SE = .04$, $t = 2.29$, $p = .023$; social norm condition: $b = .24$, $SE = .06$, $t = 4.15$, $p < .001$, 95% $CI = [.13, .36]$; control condition: $b = .06$, $SE = .05$, $t = 1.20$, $p = .232$, 95% $CI = [-.04, .16]$).

Discussion

These results show that actual ratings of products are predominantly high, with a vast majority of the ratings 4.0 or higher. With such descriptive norms of positivity, consumers view it as a norm to provide a rating that is similar to what others have provided. When consumers

evaluated products with the knowledge of how other consumers have evaluated the product, their own evaluations were significantly more in line with others' evaluations compared to when they did not have this knowledge.

STUDY 1: CREDIBLE REVIEWER VS. HELPFUL REVIEW

In study 1 we tested our general effect of negative reviews on reviewer source credibility, while also testing whether negative reviews are more helpful than positive reviews. While our main investigation focuses on the reviewer, previous research shows that negative reviews can still be helpful/useful reviews (Chen and Lurie 2013; Chevalier and Mayzlin 2006; Herr et al. 1991; Mizerski 1982). Thus, we measure the effect of negative (vs. positive) reviews on (a) reviewer source credibility and (b) review helpfulness. The study's pre-registration can be found at [<https://aspredicted.org/cw8c-k5gv.pdf>].

Method

Participants. We recruited 359 undergraduates from a large Midwestern university. As pre-registered, 279 remained after excluding those who failed the attention check ($M_{\text{age}} = 20.19$, 42.29% female). Participants received extra credit in their introductory marketing class in exchange for participation. Sample size was set by the lab manager blind to the hypothesis and based on participant allocations.

Procedure. The study followed a 2 (review valence: negative vs. positive) x 2 (target: source credibility vs. review helpfulness) between subjects design. Participants read a review of a vacuum. In the positive review condition, participants read a 4-star review that complimented the vacuum. In the negative review condition, participants read a 2-star review that criticized the

vacuum. Vocabulary, word count, and topic were held constant across conditions and only valence was manipulated (see Appendix for stimuli).

In the source credibility condition, participants indicated the perceived credibility of the source by responding to a 4-item source credibility scale: To what extent do you think s/he is credible, expert, unbiased, and trustworthy ($\alpha = .62$). We created these items based on the conceptualization of source credibility that taps both expertise, trustworthy, and bias (Cooper, Blackman, and Keller 2016; Hovland, Janis, and Kelley 1953; McGuire 1985; Petty and Cacioppo 1981; Petty and Wegener 1998; Wallace et al. 2020a, 2020b). In the review helpfulness condition, participants indicated the perceived helpfulness of the review by responding to a 3-item review helpfulness scale: To what extent do you think the review is useful, is helpful, and will help you make a decision whether to buy or not buy the vacuum ($\alpha = .88$). Then, as the attention check, they were asked to report whether the review they just read was positive or negative.

Results

A two-way ANOVA found a significant interaction between review valence and target ($F(1,275) = 10.26, p = .002, \eta_p^2 = .036$). Specifically, participants perceived the negative review as more helpful ($M = 5.86, SD = 1.00$) than the positive review ($M = 5.51, SD = .99, F(1,275) = 4.86, p = .028, \eta_p^2 = .017$). However, in terms of reviewer credibility, participants perceived the negative reviewer as less credible ($M = 4.03, SD = .84$) than the positive reviewer ($M = 4.38, SD = .80, F(1,275) = 5.30, p = .021, \eta_p^2 = .019$).

Discussion

Study 1 shows that consumers perceive a negative review to be more helpful than a positive review, replicating the findings of the literature. However, while consumers find the

negative review text to be more helpful, consumers perceive the source, which is a negative reviewer, to be less credible than a positive reviewer. In the following studies we will replicate the effect of negative reviews on source credibility and further explore when and why it occurs by testing the expectancy-violation account.

STUDY 2: NORM VIOLATION PERCEPTION

Study 2 aimed to replicate the credibility results of study 1 and test our expectancy-violation account by measuring the extent to which consumers perceived the reviewer violated a social norm. One alternative explanation is that a negative review creates negative affect, which could be driving the results on credibility. To test this potential explanation, we also measured positive and negative affect. The study's pre-registration can be found at [<https://aspredicted.org/s9xb-rs9v.pdf>].

Method

Participants. We recruited 600 US-based Connect workers via CloudResearch, and 600 participated. As pre-registered, 570 remained after excluding those who failed the attention check ($M_{\text{age}} = 39.86$, 45.44% female).

Procedure. The study was a two-cell (review valence: negative vs. positive) between subjects design. In the positive condition, participants read a 4-star review that complimented a hiking trail. In the negative condition, participants read a 2-star review that criticized the hiking trail. As in study 1, vocabulary, word count, and topic were held constant across conditions and only valence was manipulated (see Web Appendix for stimuli).

Participants indicated the perceived credibility of the source using the 3-item source credibility measure (To what extent do you think the reviewer is credible, trustworthy, and

unbiased; $\alpha = .91$). As preregistered, participants indicated the extent to which the reviewer violated social norms (3-items: To what extent do you think the reviewer is appropriate (reverse coded), to what extent does this reviewer make you feel uncomfortable, and to what extent does this reviewer go against commonly accepted social norms; $\alpha = .77$). Next, participants indicated their current affect using PANAS (Watson, Clark, and Tellegen 1988; positive affect $\alpha = .93$; negative affect $\alpha = .95$).

Results

Replicating study 1, participants perceived the negative reviewer to be less credible ($M = 3.98$, $SD = 1.21$) than the positive reviewer ($M = 5.47$, $SD = 1.02$; $F(1,568) = 254.10$, $p < .001$, $\eta_p^2 = .309$). In terms of norm violation perceptions, participants also perceived the negative reviewer to be violating the social norm more ($M = 3.10$, $SD = 1.26$) than the positive reviewer ($M = 1.82$, $SD = 1.10$; $F(1,568) = 165.77$, $p < .001$, $\eta_p^2 = .226$).

In terms of affect, participants reported feeling less positive emotion in the negative reviewer condition ($M = 3.78$, $SD = 1.41$) than in the positive reviewer condition ($M = 4.14$, $SD = 1.45$; $F(1,568) = 8.88$, $p = .003$, $\eta_p^2 = .015$); however, they did not report any difference in their feelings of negative affect between the negative ($M = 1.61$, $SD = 1.01$) and the positive reviewer conditions ($M = 1.50$, $SD = .94$; $F(1,568) = 1.73$, $p = .189$, $\eta_p^2 = .003$).

Mediation. To test whether norm violation perceptions and/or affect are mediating the effect of source credibility, we conducted a mediation analysis. The PROCESS Macro Model 4 revealed a significant indirect effect through norm violation perception (95% CI = [.20, .34]. When positive affect and negative affect were entered into the model as parallel mediators, the indirect effect through norm violation perception was still significant (95% CI = [.22, .36]), suggesting that the effect of norm violations is independent of positive or negative affect. There

was an indirect effect through positive affect, albeit smaller in magnitude (95% CI = [.01, .05]), and there was no indirect effect through negative affect (95% CI = [-.02, .002]). Comparing the size of the indirect effects, the analysis found that the norm violation perception was significantly larger than positive affect (contrast 95% CI = [.19, .34]).

Discussion

These results again demonstrate that consumers perceive reviewers to be less credible when the reviewer leaves a negative review compared to a positive review. Further, mediation analyses suggest that the effect is due to consumers reporting that the negative review led to greater feelings of a norm violation. We did not find any evidence that the effect was driven by negative affect, ruling it out as an alternative. Interestingly, we did find some evidence that the positive review evoked more positive affect, leading to greater feelings of credibility; however, the direct and indirect effect sizes were significantly smaller than the norm violation account. Thus, even though consumers reported lower positive affect with negative reviewers, the effect was still driven by norm violation perception.

STUDY 3: NEW BRAND

Study 3 tested our expectancy-violation account via moderation of expectation ambiguity. To that end, we manipulated expectations by varying the description of a brand to be either a fictitious new brand or simply a fictitious brand (no information about it being new). We propose that a social norm of positivity is created by the learned belief that the marketplace requires most products to be good enough to survive. Most products are then rated as positive, as noted earlier, reinforcing this norm. A new brand, however, has not been tested in the marketplace, so consumers do not have information and there is no collective consensus. This

lack of consensus creates ambiguity and makes a negative outcome seem more plausible. If the expectation for positivity is indeed weaker, then a negative review should be less of a social transgression. Thus, the effect should be mitigated when the negative review is about a new brand.

Method

Participants. We recruited 200 US-based Mturk workers via CloudResearch's approved participant list, and 200 participated ($M_{\text{age}} = 36.56$, 48.50% female).

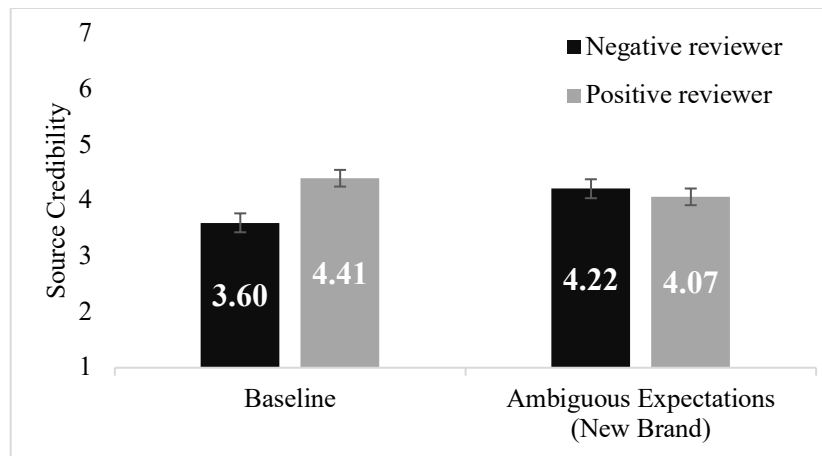
Procedure. The study followed a 2 (review valence: positive vs. negative) x 2 (expectations: baseline vs. ambiguous) between subjects design. Participants were asked to imagine looking for a vacuum cleaner and read a review of a vacuum cleaner. In the ambiguous expectations condition, additional information was provided about the brand. Specifically, the vacuum cleaner was described as "from a brand you've never heard of before" and "they just entered the market and this is their first and only product." The baseline condition did not provide this information, similar to our previous studies. After reading the review, participants indicated the perceived credibility of the source by responding to a 3-item source credibility scale (To what extent do you think s/he is expert, knowledgeable, and trustworthy; $\alpha = .81$). Finally, participants reported their subjective vacuum expertise.

Results

A two-way ANOVA revealed that participants perceived the negative reviewer to be less credible ($M = 3.92$, $SD = 1.24$) than the positive reviewer ($M = 4.24$, $SD = 1.07$; $F(1,196) = 4.18$, $p = .042$, $\eta_p^2 = .021$). The expectations manipulation did not have a significant main effect ($M_{\text{baseline}} = 4.05$, $SD = 1.20$ vs. $M_{\text{ambiguous}} = 4.14$, $SD = 1.11$; $F(1,196) = .75$, $p = .387$, $\eta_p^2 = .004$); however, the interaction between review valence and expectations was significant ($F(1,196) =$

8.74, $p = .003$, $\eta_p^2 = .043$; see Figure 1). Specifically, in the baseline condition, a negative reviewer was perceived to be less credible than a positive reviewer ($M_{\text{neg}} = 3.60$, $SD = 1.24$ vs. $M_{\text{pos}} = 4.41$, $SD = 1.05$, $F(1,196) = 12.23$, $p < .001$), replicating our previous studies. However, in the ambiguous expectations condition a negative reviewer was perceived to be just as credible as a positive reviewer ($M_{\text{neg}} = 4.22$, $SD = 1.17$ vs. $M_{\text{pos}} = 4.07$, $SD = 1.07$, $F(1,196) = .43$, $p = .515$). After controlling for subjective expertise, the main effect of review valence ($F(1,192) = 7.87$, $p = .006$, $\eta_p^2 = .039$), and the interaction ($F(1,192) = 7.56$, $p = .007$, $\eta_p^2 = .038$) remained significant. Other interactions were not significant ($F_s < 1.58$).

Figure 1. Source Credibility (Study 3)



Note: Error bars represent ± 1 SE.

Discussion

These results again demonstrate that consumers perceive reviewers to be less credible when the review is negative (vs. positive); however, this effect disappeared when expectations were ambiguous (i.e., with a review about a product from a new brand). These results provide evidence for the expectancy-violation account such that when there is ambiguous expectation for positivity – and thus, when a negative review is less of a social transgression – the negativity effect is attenuated.

STUDY 4: EXPECTATION MANIPULATION

While study 3 found that ambiguity can mitigate the effect, a question remains as to what might happen when there are clear negative expectations. As previously noted, the expectancy-violation framework is less clear about how consumers will respond when violations are in the positive direction. To that end, study 4 manipulated prior expectations to be either positive, ambiguous, or negative. The study's pre-registration can be found at [https://aspredicted.org/MSD_JN7].

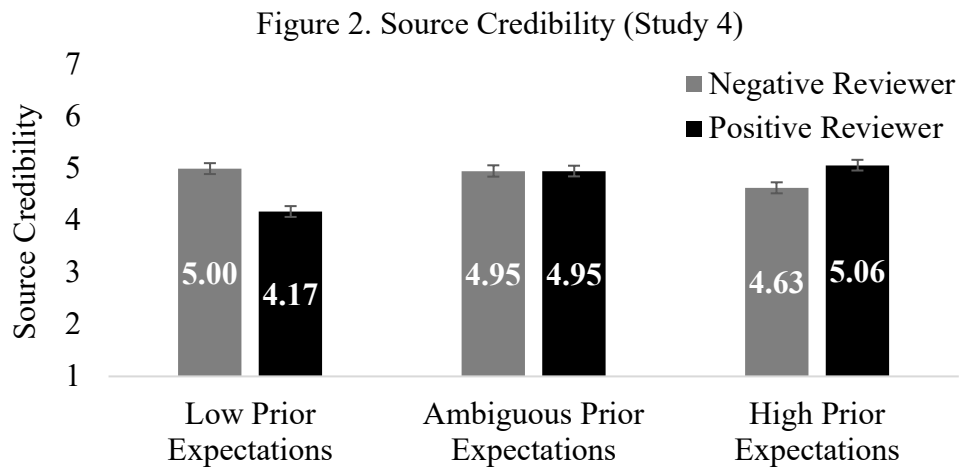
Method

Participants. We recruited 800 US-based Mturk workers via CloudResearch's approved participant list, and 791 participated. As pre-registered, 685 remained after excluding those who failed the attention check ($M_{\text{age}} = 42.71$, 44.38% female).

Procedure. The study followed a 2 (review valence: positive vs. negative) x 3 (prior expectation: high vs. ambiguous vs. low) between subjects design. Participants were asked to imagine planning to visit a burger restaurant. To manipulate prior expectations, they were told that they had heard (a lot of good things/some mixed evaluations/some bad things) about the restaurant. Next, they read either a 1-star or 5-star review of the restaurant (see Web Appendix for the stimuli). After reading the review, participants indicated the perceived credibility of the source by responding to the same 5-item source credibility scale (To what extent do you think s/he is expert, credible, unbiased, trustworthy, and honest? $\alpha = .89$).

Results

A two-way ANOVA revealed a significant interaction between review valence and prior expectations ($F(2,679) = 18.79, p < .001, \eta_p^2 = .052$; see Figure 2). Specifically, in the high prior expectation condition, a negative reviewer was perceived to be less credible than a positive reviewer ($M_{\text{neg}} = 4.63, SD = 1.10$ vs. $M_{\text{pos}} = 5.06, SD = 1.06, F(1,679) = 8.70, p = .003, \eta_p^2 = .013$), replicating our previous studies. However, in the ambiguous expectation condition, a negative reviewer was perceived to be just as credible as a positive reviewer ($M_{\text{neg}} = 4.95, SD = .94$ vs. $M_{\text{pos}} = 4.95, SD = 1.14, F(1,679) < .01, p = .992, \eta_p^2 < .001$). In the low prior expectation condition, a negative reviewer was perceived to be more credible than a positive reviewer ($M_{\text{neg}} = 5.00, SD = 1.03$ vs. $M_{\text{pos}} = 4.17, SD = 1.38, F(1,679) = 31.23, p < .001, \eta_p^2 = .044$).



Note: Error bars represent ± 1 SE.

Discussion

These results provide further evidence that the negativity effect is driven by an expectancy-violation. We again found that consumers perceive reviewers to be less credible when the review violates their prior expectations, and we also found that the effect was mitigated with ambiguous expectations and reversed when prior expectations were negative (i.e., a

negative reviewer was perceived to be more credible than a positive reviewer). These results provide further evidence for the expectancy-violation account, such that when the expectation – either positive or negative – is violated, the source is perceived to be less credible, and when the expectation is unclear and ambiguous, the negativity effect disappears.

STUDY 5: EXPECTATION VARIABILITY

In study 5 we tested a slightly different boundary condition that also examines expectations – expectation variability. In some situations, consumers expect more variability. For example, it is well established in marketing theory that service quality is more variable than product quality (Kotler and Armstrong 2017); therefore, in study 5 we manipulated expectation variability by differing the domain being reviewed: product/food vs. service. To maximize the statistical power and to demonstrate the robustness of the effect in a more conservative setting (i.e., low expectations, which is not common in real life), we focused only on the low expectation, holding the overall expectation constantly low (i.e., the restaurant is expected to be bad) and manipulated whether the review was about food or service from the same restaurant. We expected consumers to perceive service to vary more than food (which we measured as a manipulation check), and we expected the credibility effect to be mitigated when variability is high (i.e., in the service condition). The study's pre-registration can be found at [https://aspredicted.org/YVS_T77].

Method

Participants. We recruited 621 undergraduates ($M_{\text{age}} = 20.21$, 42.51% female) from two large universities. Participants received extra credit in their introductory marketing class in

exchange for participation. Sample size was set by the lab manager blind to the hypothesis and based on participant allocations.

Procedure. The study followed a 2 (review valence: positive vs. negative) x 2 (expectation variability: low vs. high) between subjects design. Participants read a review of a restaurant where they heard a lot of bad things about either the food (low variability condition) or customer service (high variability condition). In the positive review condition, participants read a 5-star review that complimented the restaurant about either their food or customer service. In the negative review condition, participants read a 1-star review that criticized the restaurant about either their food or customer service (see Web Appendix for complete stimuli). Participants indicated the perceived credibility of the source using the same 5-item source credibility measure as study 4 ($\alpha = .84$). As preregistered, we included a manipulation check that asked participants to indicate the perceived variability of food and service: “Which aspect of the experiences – food or service – do you think varies the most? In other words, does food quality or service quality vary more over time?” (slider scale -100 = Service varies more, 100 = Food varies more).

Results

Perceived variability. As expected, participants indicated that they perceived service as more variable than food ($M = -17.82$, $SD = 53.38$), and it was significantly lower than the midpoint (0) of the scale ($t(617) = -8.30$, $p < .001$, $d = -.334$). We incorrectly pre-registered an ANOVA comparing the two conditions (food vs. service) on this scale (which is itself food vs. service on a 100 to -100 slider scale), which would be the interaction: service was viewed as marginally more variable in the high ($M_{\text{service}} = -21.69$, $SD = 51.82$) compared to the low variability condition ($M_{\text{food}} = -13.93$, $SD = 54.71$, $F(1,614) = 3.28$, $p = .070$, $\eta_p^2 = .005$). Thus,

service varied more than food in both conditions. There was no significant effect of review valence or review valence by variability interaction ($F_s < .23$).

Source credibility. A two-way ANOVA found that participants perceived the negative reviewer ($M = 4.32$, $SD = .94$) to be more credible than the positive reviewer ($M = 3.59$, $SD = 1.23$; $F(1,617) = 70.27$, $p < .001$, $\eta_p^2 = .102$). The main effect of expectation variability was not significant ($F(1,617) = .004$, $p = .948$, $\eta_p^2 < .001$); however, and more importantly, the interaction between review valence and expectation variability was significant ($F(1,617) = 10.13$, $p = .002$, $\eta_p^2 = .016$). Specifically, a negative reviewer was perceived to be more credible than a positive reviewer in the low variability condition ($M_{\text{neg}} = 4.46$, $SD = 1.00$ vs. $M_{\text{pos}} = 3.45$, $SD = 1.33$, $F(1,617) = 66.77$, $p < .001$, $\eta_p^2 = .098$); however, in the high variability condition, the effect was significantly smaller ($M_{\text{neg}} = 4.18$, $SD = .86$ vs. $M_{\text{pos}} = 3.73$, $SD = 1.11$, $F(1,617) = 13.55$, $p < .001$, $\eta_p^2 = .021$).

Discussion

The results of study 5 provide support for the role of expectation variability on credibility judgments, finding that the negativity effect was mitigated when expectation variability was high (i.e., a service context). When a reviewer provided a negative review about a restaurant's service encounter (a high variability domain), consumers were more accepting of the expectation-violating review than if it was about a restaurant's food encounter (a lower variability domain). In sum, these results again support our expectancy-violation account and provide evidence that consumers consider variability as well. In our next two studies (6A and 6B), we will investigate the downstream consequences of reviewer credibility.

STUDY 6A: WILLINGNESS TO FOLLOW A SUBSEQUENT RECOMMENDATION

Studies 6A and 6B aimed to test the downstream consequences of source credibility on subsequent consumer recommendations. Reviews are important because they provide consumers with guidance and advice for the product under review, as well as future product decisions. Reviewers often establish reputations for their reviews, sometimes attracting thousands of followers, and they are then followed and used for future recommendations (Banerjee, Bhattacharyya, and Bose 2017; Yuan and Lou 2020). Thus, studies 6A and 6B tested whether the decrease in credibility from a negative review decreases consumers' willingness to follow subsequent recommendations (6A) and the reviewer on social media (6B). To test whether other social perceptions are also affected by negative reviews, study 6A measured various social perceptions (i.e., competence, likability, and warmth) of the reviewer. The studies' pre-registrations can be found at [https://aspredicted.org/4J7_FZC, https://aspredicted.org/3DK_QNT].

Method

Participants. We recruited 420 undergraduates ($M_{\text{age}} = 20.11$, 45.71% female) from a large Midwestern university. Participants received extra credit in their introductory marketing class in exchange for participation. Sample size was set by the lab manager blind to the hypothesis and based on participant allocations.

Procedure. The study was a two-cell (review valence: negative vs. positive) between subjects design. In the positive condition, participants read a 4-star review of a hiking trail that complimented the trail. In the negative condition, participants read a 2-star review of a hiking trail that criticized the trail (see Web Appendix for complete stimuli).

Participants indicated the perceived credibility of the source using the same 5-item source credibility measure as study 1 ($\alpha = .84$). As preregistered, participants indicated their social

perceptions of the reviewer (3-items: To what extent do you think s/he is likable, competent, and warm; $\alpha = .88$). Next, participants read another review by the same reviewer, but about another hiking trail rated as 4-star. Participants indicated their interest in going to this trail (1 = not interested at all, 7 = very much interested) and subjective expertise in hiking trails (four items; $\alpha = .92$).

Results

Confirmatory Factor analysis of dependent measures. The initial two-factor model provided a mixed fit to the data: $\chi^2 = 94.34, p < .001$; CFI = .961; TLI = .943; RMSEA = .097, 90% CI = [.078, .117]; SRMR = .043. While the CFI and SRMR suggested a good fit, the RMSEA value was above the threshold of acceptability, indicating model misfit. An examination of modification indices revealed a significant source of this misfit was a large residual covariance between the error terms of item “likable” and “warm” (MI = 35.23). Given the strong conceptual and semantic overlap between these two items, the model was respecified to allow their error terms to correlate. This modification is theoretically justified as these items likely share unique method variance due to their content redundancy, a practice supported by common CFA guidelines (e.g., Brown 2015; Kline 2023). The respecified model demonstrated a good fit to the data: $\chi^2 = 60.08, p < .001$; CFI = .978; TLI = .966; RMSEA = .075, 90% CI = [.054, .096]; SRMR = .029. The significant decrease in the chi-square value, $\Delta\chi^2(1) = 34.27, p < .001$, confirmed that the modification substantially improved model fit. In the final model, all items loaded significantly onto their respective latent factors ($p < .001$). Standardized factor loadings for the credibility factor were all strong, ranging from .52 to .91. Loadings for the social perception factor were also strong, ranging from .72 to .88. These results provide evidence for

the convergent validity of the measures. The two latent factors were correlated ($r = .77, p < .001$), which we discuss further in the mediation analyses.

Source credibility. Replicating our previous studies, participants perceived the negative reviewer to be less credible ($M = 3.61, SD = 1.10$) than the positive reviewer ($M = 4.47, SD = .93; F(1,418) = 116.83, p < .001, \eta_p^2 = .216$). The main effect of review valence remained significant after controlling for subjective expertise ($F(1,416) = 116.14, p < .001, \eta_p^2 = .215$). The interaction between review valence and subjective expertise was not significant ($F(1,416) = 2.39, p = .123, \eta_p^2 = .006$).

Social perceptions. Participants also indicated less appealing social perceptions (i.e., less likable, competent, and warm) of the negative reviewer ($M = 3.15, SD = 1.02$) than the positive reviewer ($M = 4.61, SD = .92; F(1,418) = 236.05, p < .001, \eta_p^2 = .361$). The main effect of review valence remained significant after controlling for the subjective expertise ($F(1,416) = 241.50, p < .001, \eta_p^2 = .367$) and the interaction between review valence and subjective expertise was also significant ($F(1,416) = 4.82, p = .029, \eta_p^2 = .011$), such that the effect became larger as subjective expertise with trials increased.

Downstream consequences. To examine the downstream consequences of source credibility, we tested whether the review valence manipulation led to higher intentions to follow the reviewer's recommendation through source credibility perceptions. As predicted, we found a significant indirect effect of review valence on the intention to follow the reviewer's recommendation through source credibility perceptions (i.e., valence $\rightarrow$ source credibility $\rightarrow$ intention to follow: 95% CI = [.02, .16]). The indirect effects remained significant at all levels of subjective expertise, and there was no significant conditional indirect effect based on the level of subjective expertise (95% CI = [-.002, .03]).

As an exploratory analysis, we also examined both the social perceptions and source credibility perception as mediators. A serial mediation (Process Model 6) found a significant indirect effect of the review valence on the intention to follow the reviewer's recommendation through the source credibility perception and then the social perception of the reviewer (i.e., valence → source credibility → social perceptions → intention to follow: 95% CI = [.03, .12]). The alternative indirect effect of the review valence on the intention to follow the reviewer's recommendation through the social perception of the reviewer and then the source credibility perception was not significant (i.e., valence → social perceptions → source credibility → intention to follow: 95% CI = [-.04, .07]). However, we are cautious towards making any causal claims given the concerns with an “inspect-and-select” strategy in mediation (see Pieters 2017). While we are confident making causal claims from the mediator of source credibility to intentions to follow (based on prior theory and because the reverse is logically unlikely), it is much less certain theoretically how source credibility and social perceptions causally affect each other to affect the dependent variable of intention to follow.

Discussion

The results of study 6A further demonstrate the negative consequences to reviewers when they leave negative reviews: It leads to lower perceptions of source credibility and reduces consumers' intentions to follow these reviewers on subsequent reviews. The decrease in intention to follow subsequent reviews holds even when those subsequent reviews are positive. The mediation analysis provides further evidence that a negative review reduces intentions to follow subsequent recommendations due to lower source credibility perceptions.

STUDY 6B: WILLINGNESS TO FOLLOW THE REVIEWER

Method

Participants. We recruited 500 US-based Mturk workers via CloudResearch's approved participant list, and 501 participated. After excluding those who failed the attention check item, 431 remained ($M_{\text{age}} = 40.85$, 42.46% female).

Procedure. The study was a two-cell (review valence: negative vs. positive) between subjects design. Participants read an Instagram post about hiking trails. In the positive condition, participants read a post that complimented the trail and gave 4-stars. In the negative condition, participants read a post that criticized the trail and gave 2-stars (see Web Appendix for complete stimuli). As in all our studies, the length, structure, and topic were held constant across valence.

Participants indicated their perceived credibility of the source using the same 5-item source credibility measure as study 1 ($\alpha = .93$). Finally, participants indicated their intention to follow the source's social media account (1 = not likely at all, 7 = very likely).

Results

Source credibility. Replicating our previous studies, participants perceived the negative reviewer to be less credible ($M = 3.87$, $SD = 1.48$) than the positive reviewer ($M = 5.18$, $SD = .96$; $F(1,429) = 118.86$, $p < .001$, $\eta_p^2 = .217$).

Downstream consequences. To examine the downstream consequences of source credibility, we tested whether the review valence manipulation led to higher intentions to follow the reviewer's account. As predicted, we found a significant indirect effect of the review valence on the intention to follow the reviewer's account through source credibility perceptions (i.e., valence $\rightarrow$ source credibility $\rightarrow$ intention to follow the account: 95% CI = [.45, .68]).

Discussion

The results of study 6B further demonstrate the negative consequences to reviewers when they leave negative reviews: It leads to lower perceptions of credibility and reduces consumers' intentions to follow these reviewers on social media. The mediation analysis provides further evidence that a negative review reduces intentions to follow the source's social media account due to lower source credibility perceptions.

One alternative explanation to these studies could be the fact that we asked about reviewer credibility (the mediator) before willingness to follow (the DV). In other words, after participants first said the reviewer was credible, they might have felt obligated to follow that reviewer. To rule out this alternative explanation, we conducted a follow-up study that did not ask or prime participants the source credibility measures. Instead, we only asked participants to respond to the intention to follow the reviewer's account. Replicating study 6B, participants showed a higher intention to follow the reviewer's social media account when the review was positive ($M = 4.70$) compared to negative ($M = 2.82$, $F(1,361) = 103.15$, $p < .001$, $\eta_p^2 = .222$), suggesting that the results in Study 6B are not due to priming or a demand effect.

STUDIES 7A-7I: REPLICATIONS & FURTHER ANALYSIS

In our final set of studies, we tested the robustness and external validity of the main negativity effect. One could argue that there was something unique about the stimuli, the product categories, the measures, or the feelings communicated in the reviews. Thus, we thoroughly tested whether the negativity effect replicated across multiple product categories (i.e., wine, hiking trails, vacuums, scales, and blenders), situations, reviewer characteristics (e.g., expert vs. novice), star ratings (e.g., 5 vs. 2, 4 vs. 2), and different measures of source credibility. Each

study tested a potential theoretical limitation (i.e., moderator), which provides evidence of external validity (Lynch 1999).

We summarize the ten replication studies in Table 1 and Figure 3, and we report all the details of each study in the Web Appendix (WA). We did not exclude any studies (including those that did not yield significant results): All studies that tested the main effect are reported, including one study that did not find a significant effect. We then report a single-paper meta-analysis, a P-curve analysis, and a text analysis of the emotionality of the reviews used.

Method

Across the studies, we recruited participants via university lab, Mechanical Turk (via CloudResearch's approved participants), and Prolific. Each study was between subjects and tested an additional moderator. We varied the different measures of our dependent variable, source credibility. The studies used several different product categories: blender, vacuum, hiking trail, restaurant, wine, chocolate, movie, body scale, and thermometer. The moderators included self-choice versus other-choice (7A), credentials versus no credentials (7B), hedonic versus utilitarian (7C), complex versus simple products (7D), early versus late decision stage (7E), fake review prime versus control (7F), choice versus avoid goal (7G), and membership tenure (7H). Further details can be found in Table 1 and in the Web Appendix.

Results

Overall, the ten studies found a consistent effect: Negative reviews led to less reviewer credibility than positive reviews. Out of the ten studies, nine showed a significant effect ($p < .05$), while one did not reach significance ($p = .199$). The studies found that the effect replicates in different categories, across different star ratings, and moderators. Specifically, the effect was replicated when the product was chosen by the reviewer or by someone else (7A) and

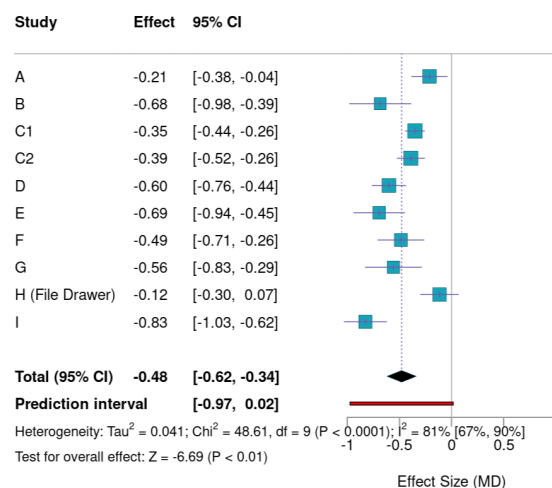
when the reviewer had expertise (“blue badge verified park ranger”; 7B). The effect also replicated for both utilitarian and hedonic products (7C1 & 2), for both complex and simple products (7D), and when the decision maker was in an early or late stage of the decision process (7E). Priming concerns of fake reviews did not moderate the effect either, and we again found a significant main effect (7F). We also manipulated the goal of the decision-maker (choose vs. avoid) and the effect replicated (7G). In 7H we manipulated membership tenure (how long the reviewer has been on the platform and the number of reviews) and also did not find an interaction; however, this is the one study that did not find a significant main effect ($p = .199$), which could be due to participant attention or uncontrolled heterogeneity. Surprise did not mediate the effect either (7I). In sum, none of these potential explanations/moderators significantly moderated or mediated the effect, and the main effect held in nine out of ten studies.

Single Paper Meta-Analysis and P-curve Analysis. To have a better idea of the size and reliability of the effect, we provide a *p*-curve analysis and report a single paper meta-analysis. Single-paper (or ‘internal’) meta-analyses have received criticism because the results are likely invalid *unless* (1) there is no selective reporting (i.e., all studies are included) and (2) only one analysis was conducted per study (Vosgerau et al. 2019). We satisfy these two criteria: We included all our studies and conducted only one analysis per study.

We conducted a single-paper meta-analysis using Meta-Mar (<https://www.meta-mar.com>), a web-based platform, to test the main effect of review valence on the source credibility. As recommended for meta-analyses of conceptual replications where methodological details and contexts vary, we used a random-effects model. This model is appropriate because it does not assume a single, common true effect size across all studies. Instead, it accounts for the expected heterogeneity in effect sizes that can arise from variations in study design, stimuli, and

context, thereby providing a more conservative and accurate estimate of the overall effect. The analysis employed the restricted maximum-likelihood (REML) method for estimating tau, and inverse variance weighting was utilized for pooling effects. The results showed high reliability (effect size = $-.48$; 95% CI = $[-.62, -.34]$; $Z = -6.69$, $p < .001$ see Figure 3). The prediction interval was $[-0.97, 0.02]$, suggesting that future studies could potentially observe effects ranging from a moderate negative effect to a negligible positive effect. The Egger’s test yielded a test statistic of -1.52 with 8 degrees of freedom ($p = .167$), and the Thompson-Sharp test produced a test statistic of -1.62 ($p = .143$), both suggesting no significant evidence of small-study effects. Note that “Study H” in Figure 3 refers to the ‘file drawer’ study that did not find significant results.

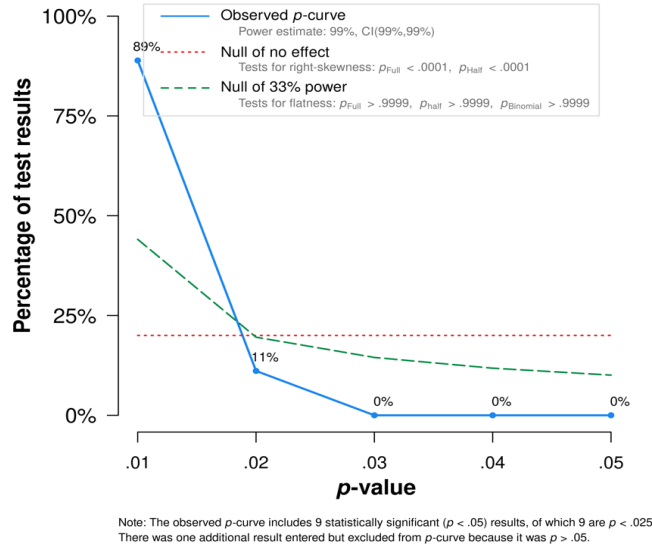
Figure 3. Single paper meta-analysis (Study 7A – 7I)



We also conducted a p -curve analysis (Simonsohn, Simmons, and Nelson 2015) on all our studies, which indicated the presence of evidential value (binomial test $p = .002$; full p -curve: $Z = -14.55$, $p < .0001$; half p -curve: $Z = -13.9$, $p < .0001$; see Figure 4) with the estimated

statistical power of tests included in p -curve of 99% (90% CI = [99%, 99%]). Note that we did not include our non-significant finding, in accordance with p -curve analysis guidelines.

Figure 4. P -curve analysis



Emotionality Analysis. One alternative explanation is that these effects could be explained by the reviews in our stimuli differing in emotionality, which can influence how consumers evaluate reviews (Yin, Bond, and Zhang 2017). Thus, we conducted a text analysis using The Lexical Suite (Rocklage, Rucker, and Nordgren 2018) to analyze the review sentiment and the emotionality of the reviews used in our stimuli. The results found that only the valence was different between the positive and the negative reviews ($M_{\text{positive}} = 6.78$ vs. $M_{\text{negative}} = 3.20$, $F(1,18) = 31.08$, $p < .001$, $\eta_p^2 = .633$), and the emotionality of the text did not differ ($M_{\text{positive}} = 3.99$ vs. $M_{\text{negative}} = 3.62$, $F(1,18) = .50$, $p = .490$, $\eta_p^2 = .027$).

Discussion

The results of studies 7A-7I consistently found that consumers perceived a source to be less credible when they leave a negative (vs. positive) review. The results held across different

product categories, product characteristics, reviewer's characteristics, and consumer's goals and situations.

We should also note that there was one interaction that was significant across these nine studies: hedonic versus utilitarian product categories. While the effect replicated for both hedonic and utilitarian categories, it was significantly stronger for utilitarian (i.e., scale, thermometer, vacuum) compared to hedonic product categories (i.e., wine, movies, chocolate). Given that hedonic product categories tend to be more based on idiosyncratic tastes, there is likely less of an expectation of positivity. Thus, consistent with the expectancy-violation theory, we found a smaller effect with hedonic product categories.

GENERAL DISCUSSION

Across nineteen studies, using eleven different product categories and situations, we find consistent support that negative reviews lead consumers to perceive a reviewer as less credible. Further, consumers are less likely to follow and take advice from reviewers who leave negative reviews. We also found support for the expectancy-violation explanation for this negativity effect: Consumers perceive negative reviewers to be less credible than positive reviewers due to the general expectation that reviews should be positive. In study 1, despite the fact that we found that a negative review is more helpful than a positive reviews, reviewers leaving a negative review were perceived to be less credible than those leaving a positive reviews Study 2 tested the expectancy-violation account, finding that the effect is mediated by the norm violation perception. Studies 3, 4, and 5 tested the expectancy-violation account by manipulating the expectations for positive reviews, finding that the effect is mitigated in situations when consumers have ambiguous expectations for positive reviews (studies 3 and 4), reverses when

consumers have low expectations (study 4), and weaker when consumers' expectations vary more (study 5).

Studies 6A and 6B demonstrated the downstream consequences of a negative review on the reviewer's reputation: It lowered credibility perceptions of the reviewer, decreased consumers' social perceptions (e.g., competence, warmth, likability) of the reviewer, and decreased consumers' willingness to follow subsequent recommendations by the reviewer and to follow the reviewer on social media. Studies 7A to 7I tested the robustness and generalizability of the effect across different situations and product categories, reporting all studies in our file drawer. We found a significant effect in nine out of ten studies (reporting a *p*-curve analysis and a single paper meta-analysis with our entire file drawer), and across both hedonic and utilitarian products, different goals for reading reviews, decision stages, complex and simple products, different reviewer credentials, and fake review concerns.

Taken together, these studies provide converging support for our expectancy-violation account across various situations and product/service categories, ruling out several alternative explanations. The findings have several important implications for consumer theory, influencers, brands, and consumers, which we discuss next, along with a discussion for future research.

Theoretical Implications

Our research makes a unique contribution to the literature on consumer reviews, influencers, and word-of-mouth by focusing on the source credibility perceptions of a reviewer, rather than the review itself (e.g., Basuroy et al. 2003; Berger 2014; Berger and Schwartz 2011; Cheema and Kaikati 2010; Chen and Xie 2008; Kupor and Tormala 2018; Liu 2006; Mayzlin, Dover, and Chevalier 2014; Packard and Wooten 2013). Past literature has mostly focused on whether a review is helpful or leads to purchase intent, with less work exploring how consumers

perceive the person behind the review – the reviewer (for an exception, see Gershoff, Mukherjee, and Mukhopadhyay (2007) or Gershoff, Broniarczyk, and West (2001), which explored inferences about recommendation agents based on past performance). Our findings suggest that simply communicating negativity can decrease one's credibility, which could extend to other relevant situations, such as criticizing a movie, concert, or colleague's presentation.

The findings also contribute to the literature on attitudes and persuasion (e.g., Chaiken and Maheswaran 1994; Erdem and Swait 2004; Petty and Cacioppo 1981; Petty and Wegener 1998; Priester and Petty 2003; Tormala and Petty 2004) by examining an antecedent to source credibility. We show that an expectancy-violating message decreases source credibility perceptions. In the persuasion literature, source credibility and message valence are usually treated as independent factors affecting persuasion. However, we demonstrate that this may not necessarily be the case when a negative message violates the expectations for positive messages. While past literature demonstrates how consumers process messages that are incongruent with their pre-existing attitudes (e.g., Kidwell, Farmer, and Hardesty 2013; Maheswaran and Chaiken 1991; Updegraff, Sherman, Luyster, and Mann 2007), we examine the effect of a negative message/review on the communicator before (or during) attitude formation of a target. Our findings show that when this message violates the prior expectations for its valence (positivity in most cases), consumers discount the credibility of the communication source of the messages. Thus, our research suggests that a message's valence and source credibility can interact depending on whether people have prior expectations for the valence of the message.

In addition, our findings also contribute to expectancy-violation theory and the communications literature more broadly (Burgoon 1993; 2015). The theory, which explains how people use and interpret physical and psychological space and distance (Burgoon et al. 1989),

posits that positive expectancy violations (e.g., a famous person standing a little closer to you than social norms) would likely invoke more positive reactions than negative confirmation (e.g., a nosy, talkative relative sitting next to you). Expectancy-violation theory thus suggests that positive violations (i.e., greater positivity than expected) can actually increase attitude compared to negative violations (i.e., greater negativity than expected). However, our findings suggest that when consumers have negative expectations (i.e., negative reviews), even positive violations (i.e., positive reviews) can have negative consequences (study 4).

The results also uncover a fundamental paradox in how consumers evaluate reviewer credibility – one that pits trust from sincerity (i.e., honesty) against trust from adhering to social norms and conventions (i.e., predictability and group alignment). This suggests that trustworthiness, a cornerstone of credibility, is not a unitary concept, consistent with research finding independent effects of trust, honesty, and bias on source credibility (Wallace et al. 2020a, 2020b). The reviewer who provides a norm-violating negative opinion may be offering an honest assessment of their experience; however, this behavior violates trust from social conformity. In this case, our research suggest that consumers are more likely to make a negative attribution about the source than they are to conclude the source is being honest. In other words, the reviewer is penalized for failing to be a good citizen of the consumer community, overshadowing the potential diagnostic value of their honest, albeit negative, report. This creates a dilemma: to be perceived as credible, a reviewer may feel pressured to provide a report that agrees with expectations, even if it diverges from honesty.

Future Research and Implications for Managers, Influencers, and Academics

Credibility is a key resource managed by marketing influencers word-of-mouth on consumers, and our research identifies an important antecedent – expectations of the

communication – that shapes this resource. For opinion leaders, influencers, and critics, the research suggest that negativity often comes at the price of one's reputation. When followers and consumers expect positive reviews – which seems to be the norm – and they read a negative review, the influencer is viewed as less credible. Future research should examine how such criticism might extend to other domains where criticism may be more or less common, such as politics, ideation, management, or academia.

In terms of brand management, our results are mixed and point to two opposing forces that need to be considered. On the one hand, we find that negative reviews are viewed as more helpful by consumers, and thus they may be more likely to be read. On the other hand, we also find that some of the negativity is attributed is to the reviewer, which may insulate the brand, as long as consumers have prior expectations for positive reviews. Instead of a lengthy, defensive rebuttal that risks amplifying a negative review, managers can reinforce the idea that the negative review is not the norm. A simple, professional acknowledgment of such an anomaly may be sufficient (e.g., “Thank you for your feedback. We’re sorry to hear your experience was below the norm and didn’t meet your expectations. We will look into the matter.”). Managers can be confident that other readers are already viewing the negative reviewer with a degree of suspicion. Future studies may want to examine what types of brand associations and brand types are most resilient to expectation-disconfirming feedback. We find that new brands are less resilient, thus, it is plausible that strong brands and brands with communities create powerful expectations or positivity that buffer against negative feedback and damage to the brand.

The results provide more evidence for the importance of brands to establish expectations for positive reviews for consumers (Park et al. 2021). However, we should also note that it is possible for negative reviews to have positive outcomes: negative reviews can often create

positive publicity (Berger et al. 2010) and even reactance (Fitzsimons and Lehmann 2001). Thus, marketers should continue to think about new ways to handle negative reviews.

These findings also have implications for managers and academics when providing peer criticism and/or negative feedback. While the criticism at a seminar might be helpful and even warranted, our research suggests it can damage the credibility of the critic in some situations. While we did look at some situations where the reviewer had expertise in the area (and did not find evidence of a mitigating effect), it is possible that power differences or other factors may mitigate (or exacerbate) the effect we find. What we do know is that when people expect negativity, the effect is mitigated. Thus, consistently negative supervisors and colleagues may become immune to further decreases in credibility over time, especially if people learn to expect negativity from the source or the topic of criticism.

Certainly, a negative review can be just one of many reviews that a reviewer has written, and one limitation of our work is that we were not able to investigate signal frequency or mixed cues. If consumers examine multiple reviews by a reviewer, the effect of a single negative review along with multiple positive reviews might be reduced, though the order of negative and positive reviews will likely play a role. Similarly, multiple negative reviews may likely send a stronger signal. Future research should examine how a mixture of negative and positive reviews and their order and frequency affect source credibility.

While we chose to manipulate valence in the lab to avoid any confounds in language across positive and negative conditions, it required more hypothetical studies compared to field studies. We did replicate the studies in several different situations to test robustness, but it remains to be seen how this may play out with real negative reviews that are correlated with other factors. Thus, we encourage researchers to explore large-scale unstructured data using large

language models to test consumer choice and influencer behavior. It could also be that some influencers are implicitly learning these tactics as they post and leave reviews, which may limit the number of negative observations and create endogeneity issues.

This research also suggests important questions about the potential tension between a reviewer's perceived honesty, risk, courage, and their adherence to social norms. Future work could explore the boundary conditions of this effect. For example, under what circumstances do consumers prioritize a reviewer's perceived honesty over their violation of expectations? It may be that for high-risk products, the perceived value of an honest, critical assessment outweighs the social cost of negativity. Similarly, criticizing a powerful entity (e.g., a bully, the government, or in politics) might be viewed as an act of courage, especially if the personal costs are high. There are also situations and cultures when negativity, or being a deviant, is less norm violating (e.g., some academic and scientific contexts) and there is greater value placed on honest feedback.

Another promising direction for future research is to unpack the specific content of credibility attributions that drive the effects. Our current studies show that the credibility scale is highly reliable, and the factor analysis results support a one-factor model of credibility. However, other work has found that there can be diverging components (Wallace et al. 2020a, 2020b). An expectancy-violating review may reveal information about the reviewer's underlying intentions or abilities. For instance, under what conditions do consumers who read a negative review conclude that the reviewer has a malicious intention (e.g., low trustworthiness) but competent, or infer that the reviewer lacks the competence to use the product correctly (e.g., low expertise) but is unbiased? Disentangling these specific attributions would provide a more granular understanding of the expectancy-violation process. It would also clarify whether the credibility penalty stems from a perceived lack of character, skill, bias, or a combination.

Finally, we should note that all criticism is not the same, and constructive criticism might alleviate negativity. The old adage that it is best to start with something positive (the “compliment sandwich”) might help mitigate the negative consequences on credibility; though, this approach is not really feasible when consumers read overall ratings (e.g., 2 out of 5 stars) before reading the individual comments. Nonetheless, the order of overall information might alleviate the effect, or perhaps it is overall ratings themselves (e.g., stars and scales) that enhance the negativity effect.

In sum, while criticism may be intended to hurt the credibility and perceptions of a brand, service, or idea, we find that it decreases the credibility of the person being critical. Thus, critics are less credible – at least as perceived by others – when positivity is expected.

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APPENDIX: Study 1 Stimuli

Positive review condition:



JesBee

★★★★★ Decent value for money and don't bother shopping around.

At first, I didn't grasp just how small this vacuum is. I knew it was compact, but it's surprisingly small. The hose is a bit short, so using attachments takes a little planning if you need to reach something over a foot away, whether vertically or horizontally.

One of the standout features is how quiet it is. Noticeably quieter than a standard vacuum.

Overall, this is a fantastic vacuum for the price, and there's really no need to shop around or spend extra for something marginally better.

Negative review condition:



JesBee

★★★☆☆ Decent value for money but consider shopping around.

At first, I didn't grasp just how small this vacuum is. I knew it was compact, but it's shockingly tiny. The hose is frustratingly short, making attachments almost useless for anything more than a foot away, whether vertically or horizontally.

One of the biggest issues is the noise. This thing is loud. Noticeably louder than a standard vacuum.

Overall, this isn't the worst vacuum you could buy for the price, but you're probably better off looking elsewhere or spending a little more for something sturdier and more functional.