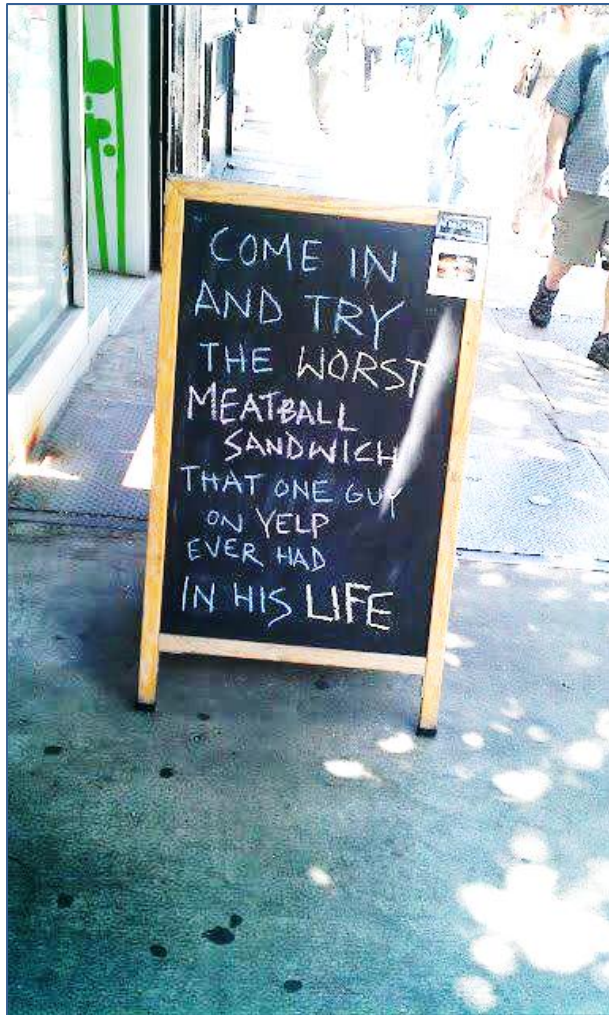


An Experimental Study of How Restaurant-Owners' Responses to Negative Reviews affect Readers' Intention to Visit.



David Evans

Jill Oviatt

Jordan Slaymaker

Conrado Topado

Patrick Doherty

Amy Ball

Dacia Sáenz

Elizabeth Wiley

PHOTO SOURCE: [HTTP://EVGRIEVE.COM/2012/05/EVERYONE-LOVES-REALY-BAD-MEATBALL.HTML](http://EVGRIEVE.COM/2012/05/EVERYONE-LOVES-REALY-BAD-MEATBALL.HTML)

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EXECUTIVE SUMMARY

Since 2009, business owners have been able to publicly respond to negative reviews on Yelp, but experts still give very contradictory advice as to what they should say. And to date no experimental studies exist to provide guidance. Graduate students in the University of Washington MCDM program under David Evans, Ph.D. of Psychster Inc. experimentally tested what effect responses to negative reviews have on readers' intention to visit a restaurant. They randomly exposed 259 readers to carefully controlled mockups of a Yelp business profile and gathered their reactions. The results showed:

1. Consistent with past research, a negative review significantly decreased readers' intention to visit a restaurant.
2. Of all the scenarios tested, readers were least likely to visit the restaurant when no response was made to a negative review; even a combative response improved on silence.
3. The two more positive, constructive responses from the restaurant owners were able to eliminate, but not reverse, the PR-hit caused by a negative review.
4. The response that was tailored to PR best practices outperformed the polite but non-expert responses typically seen on Yelp.



BACKGROUND AND RESEARCH QUESTIONS

Yelp.com displays customer ratings and reviews of local restaurants, services, and retailers. Since 2004 over 27 million reviews have been written and viewed by up to 71 million monthly visitors ([Yelp, 2012](#)). Apple recently announced plans to integrate Yelp reviews into their new iPhone map application ([Kucera, 2012](#)), ensuring that they will be viewed by users on mobile devices as often as PCs. Restaurant owners should now fully expect to see prospective diners standing just outside their front entrances, reading about the experiences of other customers almost as easily as they peruse the menu posted by the door.

Research has demonstrated the clear impact of these reviews. In an article for the Harvard Business Review, econometrician Michael Luca (2011) looked at the revenue earnings for 3500 restaurants in Seattle as reported by the Washington State Department of Revenue, and their average star ratings on Yelp. By examining larger-than-expected spikes and dips in both metrics, and controlling for exogenous factors, Luca concluded that **an average ratings drop of 1 out of 5 stars results in a 9% drop in revenue for independent restaurants.** (The effect on chain restaurants was negligible.) And since Yelp gives incentives to its users for being the first to review a restaurant, many eateries are impacted by reviews just as they are starting up.

It was only in 2009 that Yelp launched a feature allowing businesses to respond to reviews ([Lowensohn, 2009](#)). Business owners have since made this a common practice: a study by [RightNow \(2011\)](#) and [Harris Interactive](#) found that 68% of shoppers who posted a negative review during the 2010 holiday season were contacted in some way by business representatives.

But this begs the question: When responding to negative reviews, especially publicly, what should businesses say? Or should they say anything at all?

Empirical studies to date have assessed the impact of positive and negative **reviews**, but not **responses** (see e.g. Berger, Sorensen, & Rasmussen, 2010; Lee, Park & Han, 2006; Vermeulen & Seegers, 2008). Out in the blogosphere, best practices are discussed, and [Yelp itself](#) has chimed in, but there is a lot of contradictory advice. Businesses are sometimes encouraged to join the conversation and respond to attacks, other times to ignore them. They are told to dispute errors of fact, but also to remember that the customer is always right. And they are told to remain professional, but there is always the underlying hint that there is no such thing as bad publicity. It would be interesting to see sales figures from "Boners BBQ" in Atlanta after the Huffington Post ([Richard, 2012](#)) and ABC News ([Kindelan, 2012](#)) covered their battle on Facebook and Twitter with a customer who posted a negative review and was in turn accused of under-tipping. (Despite sprinkling their responses with profanity, the edgy restaurant was often applauded for "standing up for itself"). We know from studies of books that negative reviews can sometimes increase awareness and in turn sales (Berger et al., 2010). Similarly, combative restaurant responses may also contribute to top-of-mind awareness, viral spread, and ultimately more business.

Against this backdrop, the current paper sought to test the impact of businesses' responses on reader's intention to visit the restaurant in question. Our experimental protocol was designed to:

- measure how badly a first negative review affects readers' intention to visit
- test whether any response from the restaurant is better than no response at all
- test whether a combative response (taken from Yelp) is as harmful as is generally assumed
- test whether two different constructive responses (one taken from Yelp and one based on PR theory) would return perceptions of the restaurant back to the level they were before the negative review

To that last point, we wanted to test whether following the advice of PR experts was better than posting a polite, non-expert, common-sense response. So we tested two constructive responses: one based on actual Yelp posts by restaurant owners, and one following the templates of [Vincent Covello \(2009\)](#), Director for the New York Center for Risk Communication. Covello and other PR experts recommend that responses follow a "CAP template" and emphasize these 3 messages in this order:

- **(C)aring Message:** Provide a message indicating caring, concern, empathy, or compassion. The message should communicate the seriousness of the situation.
- **(A)ction Message:** State actions you have, are, or will take to address the issue or problem.
- **(P)erspective Message:** Provide information that puts the issue in perspective or context.

The assumptions behind the CAP template are that customers ignore arguments over facts or differences in perspective unless businesses first communicate empathy; and vice-versa, empathic statements are seen to be disingenuous if they are only made after rational quibbling. As such, businesses should communicate empathy for the reviewer's poor experience first, and a defense of their practices last. But between the two messages, it is critical to communicate what's being done about the customers' substantive complaints.

The CAP method is consistent with [Yelp's advice](#), if more succinct. Both agree that you can't simply stop with a statement of appreciation for the feedback. Yelp notes that, "Comments that simply thank users without providing new information can be perceived as overbearing." Yelp goes on to say:

"So just keep your message simple: thank you for the business and the feedback. If you can be specific about the customer's experience and any changes you may have made as a result, this could go very far in earning trust..."

You can use Public Comments to tell the community what you've done to address a specific concern raised by a reviewer, provide correct information when a review contains inaccurate or outdated information, or provide your version of a difficult situation when you're unable to resolve a dispute through private messaging. Remember to be polite and stick to facts since your comments are public and can be seen by potential customers...

Please don't use public comments to launch personal attacks, advertise, or offer an incentive to change a review." Source: https://biz.yelp.com/support/responding_to_reviews

Further advice is crowdsourced on [Yelp's blog](#) and [YouTube channel](#) where business owners share their views.

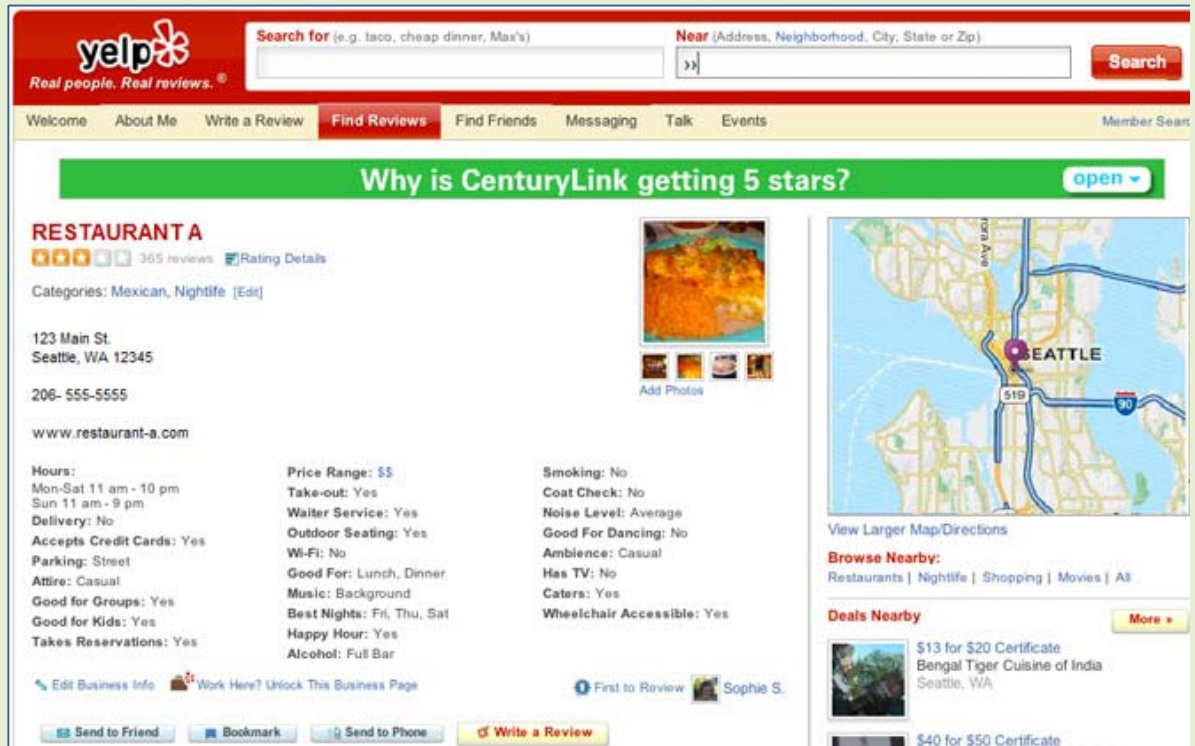
One tantalizing possibility, [often hinted at](#) but rarely explicitly stated, is that a really excellent and constructive response to a negative review can lead to a net gain in reader's esteem for the business and increase consideration of its offers. The negative review is thought of as an "opportunity" for the business to show its integrity and commitment to service. Our experimental design allowed us to test this notion, by comparing scenarios with constructive responses to negative reviews to a scenario where no negative review was given in the first place. This way we could learn whether the restaurant would be returned to par (or not), and whether it might be elevated in readers' minds above the level seen with no negative review at all.

METHOD

Scenarios

An online experiment was built in which participants were randomly assigned to view one of 5 rich-media scenarios. The scenarios included carefully altered screenshots of a Yelp profile as follows:

Scenario 1 showed only the Restaurant Profile.



Scenario 2 added one Negative Customer Review to the Restaurant Profile above, but showed no Business Response.




Scenario 3 added one Combative Business Response (taken from Yelp) to the above Negative Review and Restaurant Profile.

Comment from Business Owner [« Hide](#)

 please don't ever come to this restaurant again, you are not welcome here. This site should do a better job of reviewing who reviews our site. First day you do a review you review two mexican restaurant on gets 5 stars and one gets one star, give me a break, stick with helping your friends restaurant you don't need to go out and hurt others. We don't need your business.

Scenario 4 added instead a Constructive Business Response (taken from Yelp) to the above Negative Review and Restaurant Profile.

Comment from Business Owner [« Hide](#)

 Sorry you didn't like your visit to Restaurant A. We try hard to give our customers a good value when they come in yet sometimes we unfortunately miss the mark. Luckily we get it right most of the time. If you decide to come back in to give us another chance, please let me know and we'd be happy to offer you a free appetizer or dessert of your choice. I am sure we can fix the problem. Thank you for your feedback!

Scenario 5 added instead a Constructive Business Response (tailored to PR best-practices) to the above Negative Review and Restaurant Profile.

Comment from Business Owner [« Hide](#)

Thank you for the honest and informative comment and I'm sorry you had a bad experience with us. This is the kind of feedback we need to help us serve you better and yes, hopefully stick around for the long haul. As a new restaurant, we are still working out some kinks and continue to train staff on how best to serve our customers. Please bear with us as our skills and menu grow. It's important to know that some of our customers like their food a bit hotter, so we'll add the option for a few more degrees of spiciness. We would love to invite you back and try to give you a better experience. In fact, we'd like to give you a free dish on the house. Thanks again and hope to see you soon. Business Owner's name.

Note that scenarios were additive in the sense that the 1st showed only the profile, the 2nd added a negative review (no positive reviews were tested), and the 3rd through 5th added a business response. In part because this is to our knowledge the first study of business responses, we sought to maximize the external validity (realism) of the scenarios, rather than their internal validity (carefully controlled tests of potentially influential factors). Similarly, the constructive response showed in the 5th scenario represented our best response disciplined by PR theory, rather than a careful test of the assumptions of the CAP template. Our goal at this stage was merely to determine whether a best-practices response was measurably different than a typical response seen on Yelp.

To further focus participants' attention on a common scenario, the images above were displayed with an audio narration that was identical for all scenarios. It was also displayed textually, and it read:

"A good childhood friend is coming to town to visit you next weekend. Your friend has never been to Seattle and wants to see the sights and take in the city's culture. To get a head start on planning the weekend's itinerary, you decide to make dinner reservations for Saturday night. You remember your friend likes Mexican food, so you decide to look online for a restaurant. After doing a quick online search you choose the second result, the consumer review site, Yelp, where other diners have rated and reviewed many types of restaurants. On the site, you click on one Mexican restaurant in your area to learn more. As you review the webpage for the restaurant, consider all of the information you normally would when choosing a restaurant on a website like Yelp."

Participants were exposed to one and only one of the 5 scenarios in the between-subjects design.

Metrics

After viewing the scenarios, participants were asked "How likely are you to go to this restaurant after seeing this webpage?" Ratings were collected on a 4-point forced-choice Likert scale labeled *not likely, somewhat likely, likely, very likely*.

Next, they were asked "What is your impression of the _____ after seeing this webpage?" where we asked about the *restaurant* for everyone, and *reviewer* or *business owner* for those who saw a scenario in which these were a part. On these questions, participants made ratings on 5-point semantic-differential scales labeled *negative, somewhat negative, neutral, somewhat positive, positive*.

Finally, participants were asked "How important were each of the following factors in influencing your decision?" for which they rated 8 influences including *the user review, the comment from the business owner, the average star rating provided by all users, number of reviews, rating distribution bar graph, review highlights, and price range*.

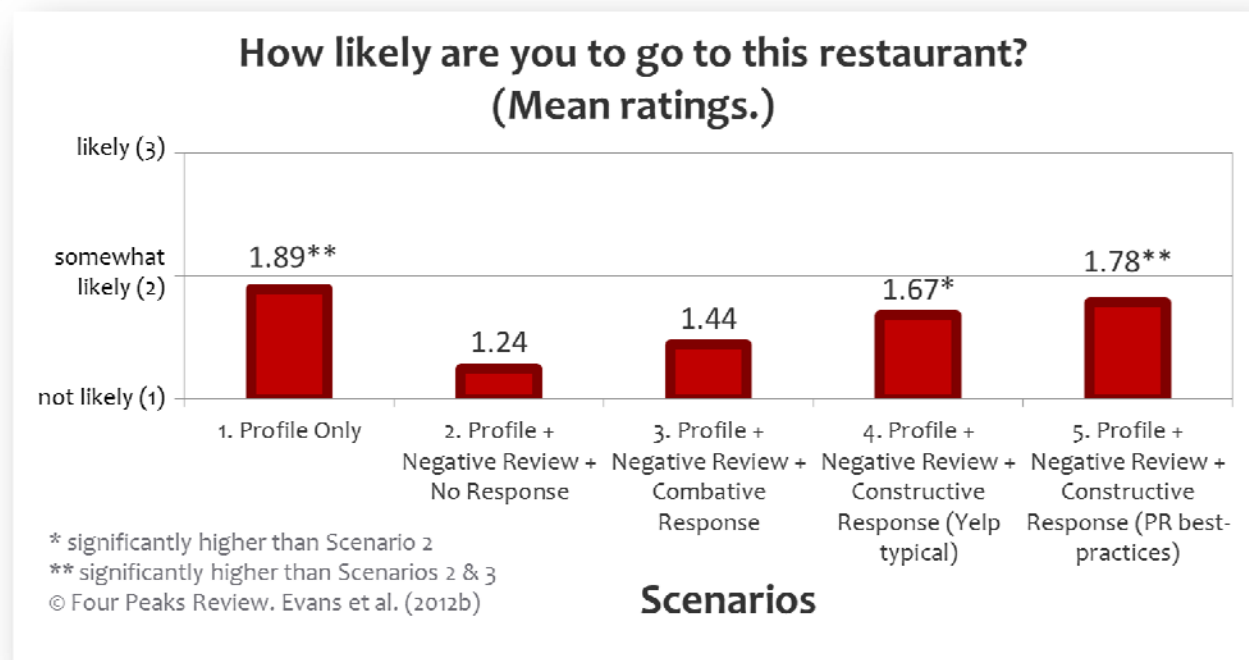
Participants

All surveys were fielded in May 2012. Participants were recruited primarily from the Psychster Inc. panel of 28K members of YouJustGetMe.com, a personality assessment application on Facebook and the World Wide Web. We received 259 completed surveys, and participants were only terminated if they were under 18 years of age. Of those who completed the survey, 41% were male, 59% female, and the average age was 38 years old.

RESULTS

How do responses to reviews affect readers' intention to visit?

All metrics were analyzed with a univariate ANOVA and pairwise LSD comparisons. For all significant differences reported, $p < .05$. The pattern of the means graphed below support the conclusions that follow.



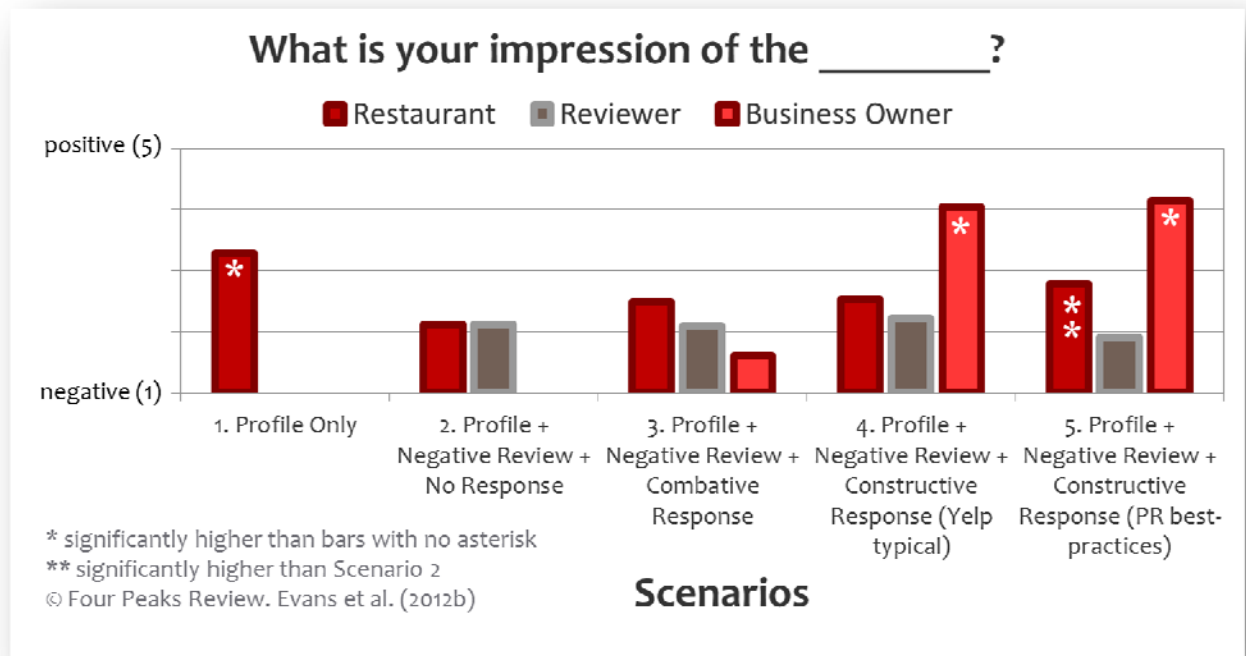
- 1. Consistent with past research, a negative review significantly decreased readers' intention to visit a restaurant.** Readers who saw a negative customer review (Scenario 2) were significantly less likely to consider the restaurant than when they saw only the business profile (Scenario 1).
- 2. When no response was made to a negative review, readers were least likely to visit the restaurant of all the scenarios; even a combative response improved on silence.** Of the five scenarios, readers were least likely to consider the restaurant when they saw a negative review and no response from the business at all (Scenario 2). Surprisingly, this scenario was statistically tied with the combative response (Scenario 3), where a business owner, against all advice, responded that the reviewer was "helping your friend's restaurant" and "not welcome here." Taken together, these findings suggest that any business response to a negative review is probably better than no response at all, since even the worst response we found on Yelp outperformed keeping quiet.
- 3. The two constructive responses from the restaurant owners were able to eliminate, but not reverse, the PR-hit caused by a negative review.** Readers of the two constructive responses that we tested (Scenarios 4 and 5) were significantly more likely to consider the restaurant than readers who saw no

response (Scenario 2). However, despite the optimism of many bloggers, even our best response (Scenario 5) did not elevate readers' intention to visit above the level shown by readers who saw no negative review in the first place (Scenario 1).

- 4. **The response that was tailored to PR best practices outperformed the polite but non-expert responses typically seen on Yelp.** Readers of the business response that followed the advice of PR expert [Covello \(2009\)](#), and communicated "caring, action & perspective" in that order (Scenario 5) were significantly more likely to consider the restaurant than readers who saw no response (Scenario 2) or a combative response (Scenario 3). Although the polite, common sense response typical of Yelp (Scenario 4) outperformed no response at all (Scenario 2), it was statistically tied with the combative response (Scenario 3). In this way, the evidence favored the PR best-practices response by a nose.

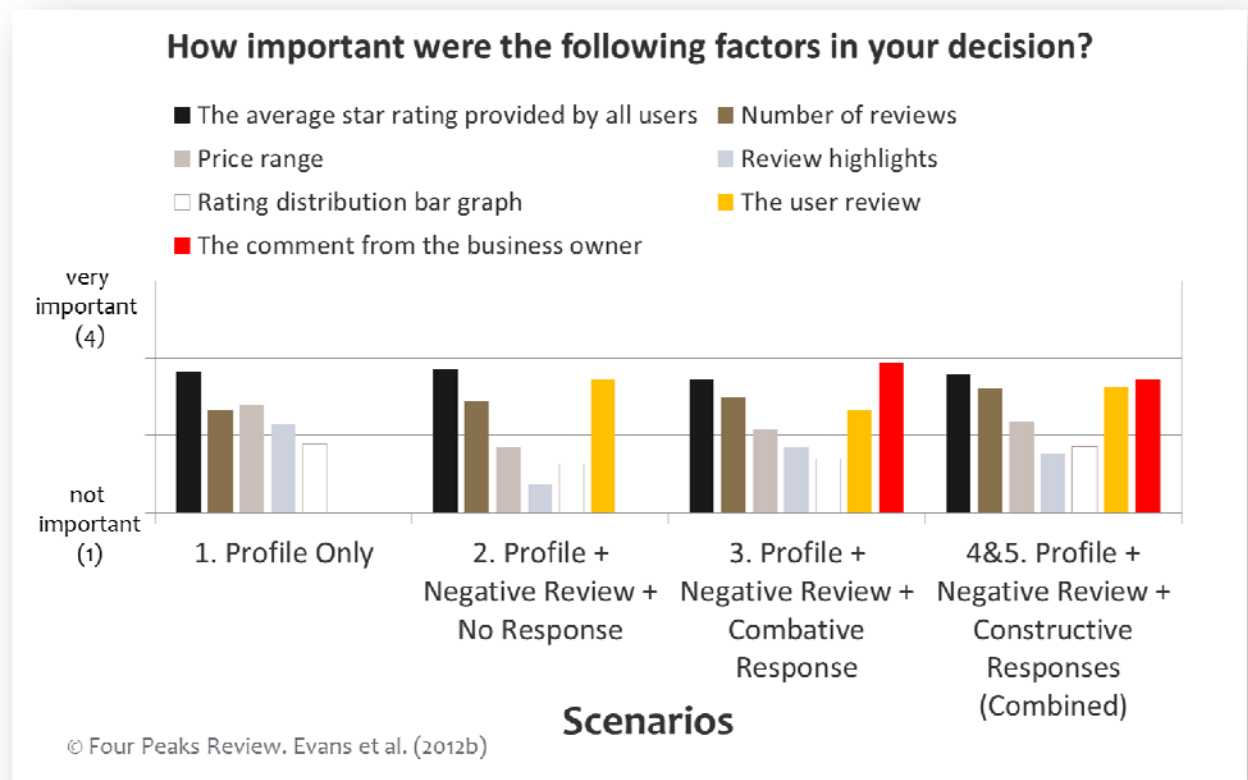
How do responses affect readers' subjective perceptions?

The graph below plots readers' perceptions of the restaurant, the reviewer, and the business owner who posted a response. The clear interpretation here is that the response has the greatest influence on perceptions of owner who posted it, and far less influence on perceptions of the restaurant or the reviewer. That said, the business response that followed PR best practices (Scenario 5, red bar) was the only response that improved perceptions of the restaurant over no response at all (Scenario 2, red bar). Although trending upward, the typical Yelp response that we tested (Scenario 4, red bar) was not significantly different than no response (Scenario 2, red bar) or from a combative response (Scenario 3, red bar). This provides additional evidence in favor of following PR guidelines when responding to negative reviews.



How important are reviews and responses compared to other information?

The final graph below demonstrates that business responses (orange bars) to customer's reviews (gold bars) are as or more important than the other information about a restaurant that appears on a typical Yelp profile. Interestingly, in Scenario 3 where the combative business response appeared (orange bar), readers discounted the importance of the customer review slightly (gold bar). This might be attributable to the particular response that we tested, which suggested that the reviewer might have rated a friend's restaurant high and this one low. Although there is ample evidence here to avoid combative reviews, this suggests that challenging a truly unfair review might be effective at minimizing its influence.



DISCUSSION

How should restaurant owners respond to negative reviews on Yelp?

Restaurant owners, according to both the new and existing research evidence discussed here, **should not remain silent** when they receive a negative review. Our scenario experiment found that **any response** - even one of the most ill-advised combative responses we could find on Yelp - outperformed no response in its effect on readers' intention to visit. When facing the risk of a 9% loss in revenue for each 1-star drop in average ratings ([Lowensohn, 2009](#)), restaurant owners should make some attempt to mitigate the damage of a negative review, and our findings show they can almost do no wrong (provided they are not abusive and don't publicly bribe the reviewer to change their review as Yelp prohibits).

For those who want to respond more artfully, we can summarize the diverse (and often contradictory) advice on the web by saying **construct a message that communicates "caring, action, and perspective" in that order** ([Covello, 2009](#)). Such messages outperformed not only silence and combative responses, but also the typical polite responses found on Yelp that do not follow PR guidelines. When business owners first acknowledge and empathize with the reviewer's poor experience, then tell them how they will act on their criticisms, and only then correct any errors of fact or present their point of view, both reviewers and readers will be more likely to pay the establishments another visit. And they will think more highly of the message poster.

That said, even the best-performing response we tested failed to elevate perceptions above the level seen before the negative review was written. It [may be tempting to view](#) a negative review as an opportunity "to show the public what you're really made of" and leave readers with an overall better sense of a business by seeing how it responds to attacks. But if such a response exists, we did not observe this pattern here. Our advice is to set a goal of eliminating the PR hit from a negative review, consistent with the findings of this study, and hope the outcome exceeds expectations.

Because we could not test every scenario in a single study, there are still many unknowns. In our scenarios only a single review was written, and it was negative. This applies well to startup businesses that are off to a rocky start with social media. But it is conceivable that readers who see multiple positive reviews and one negative one, together with a good business response, might be more likely to visit a restaurant than seeing only the positive reviews. The total number of reviews and the positive/negative proportion is known to affect businesses ([Luca, 2010](#)), but we must await future research to see how the impact of responses to reviews varies under these conditions.

Other scenarios worth testing include how businesses can challenge the legitimacy of a review that errs in its facts, or is perhaps subject to a conflict of interest which Yelp tries very hard to filter out. The combative review that we tested had an element of this in that it argued the reviewer had only made 2 lifetime reviews, both on the same day, and in one gave 5 stars to another Mexican restaurant and only 1 star to the restaurant in question - thereby suggesting it was written on behalf of the competing eatery. We found that readers rated the importance of the negative review **lower** after seeing this response, than after seeing more accommodating responses, suggesting the counter-attack was somewhat successful at undermining a potentially unfair review. Again, more research is needed to explore this scenario further, and we welcome businesses to engage us to further test the rich dynamics of the Yelp environment.

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