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Should Reviewers Stand in the Shoes of Review Readers? The Role of Perspective Taking in Online Reviews

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ABSTRACT

Reviewers can describe their experience with a product or service from their own perspective or from the perspective of review readers (or prospective consumers). The present paper investigates how and why reviewers' perspective taking may influence review readers' perception of review helpfulness. Drawing on the perspective taking literature, we posit that reviews that take (vs. do not take) the perspective of prospective consumers are more likely to be perceived helpful, and that this effect can be explained through greater reviewer attractiveness perceived by consumers. In Study 1, real app reviews from Apple's App Store were collected to examine the relationship between perspective taking and review helpfulness. In Study 2, experimental methodology was utilized to identify and explain the effect of perspective taking in terms of perceived reviewer attractiveness. The findings provide converging evidence for the important role of perspective taking in online reviews.

Keywords

Perspective taking, perceived review helpfulness, reviewer attractiveness, online reviews, online word-of-mouth.

INTRODUCTION

As a prominent form of user-generated content, online reviews are increasingly indispensable for consumers to make purchase decisions. However, the exploding number of online reviews can cause information overload for consumers (Jones, Ravid and Rafaeli, 2004). As a result, a clear understanding of factors contributing to helpful reviews has clear benefits to product/service providers, review platforms, and reviewers.

This research investigates the role of perspective taking – the extent to which reviewers stand in the shoes of review readers (or prospective consumers) as they describe their experience with a product or service. Prior studies have

examined a variety of factors that influence review helpfulness, such as ratings (e.g., Korfiatis, Rodriguez and Sicilia, 2008), product type (e.g., Mudambi and Schuff, 2010), content and emotional factors (e.g., Cao, Duan and Gan, 2011, Yin, Bond and Zhang, 2014), as well as reviewer characteristics (e.g., Forman, Ghose and Wiesenfeld, 2008). However, no research has examined the social aspect of the review writing process. As writers, reviewers write a review primarily for future readers. In particular, reviewers may make a conscious or unconscious choice with regard to whether they should stand in their own shoes or in the shoes of future readers.

A reviewer's strategy of taking whose perspective in the review writing process can have a nontrivial effect on review helpfulness perceptions. The effect of perspective taking has been shown to extend to strangers in initial encounters (Galinsky and Moskowitz, 2000), and perspective taking can impact the target in addition to the perspective taker (Goldstein, Vezich and Shapiro, 2014). Drawing on this literature, we propose that reviews that take the perspective of review readers (vs. reviewers) are more likely to be rated helpful, and that this effect can be explained through perceptions about reviewer attractiveness. To test our hypotheses, we utilize a field study using archival data and an experiment.

Our research makes a number of unique contributions. First, we examine the role of perspective taking that has been overlooked in the online word-of-mouth literature. Our findings support the importance of perspective taking even among total strangers, opening up exciting opportunities to study the social aspect of the review writing process in future research. Second, we demonstrate perceived reviewer attractiveness as the mechanism underlying the effect of perspective taking, deepening our understanding of how and why review readers' perception of perspective taking can influence their evaluation of review helpfulness. We also explore the more downstream consequence of perspective taking – consumer attitude – in a supplementary analysis, further corroborating the critical role that perspective taking

plays in online reviews. Finally, our findings have clear practical implications for product/service providers, review platforms, and reviewers. For example, review platforms stand to benefit by adjusting their review writing guidelines and encouraging reviewers to stand in the shoes of future readers rather than their own.

THEORETICAL DEVELOPMENT AND HYPOTHESES

Perspective taking refers to an individual's act of considering a situation from another's point of view (Stotland, 1969). Perspective taking plays a key role in social interactions and relations. Taking the perspective of a target has been linked to empathy and helping behavior, increasing perspective takers' willingness to help the target (Toi and Batson, 1982). Perspective taking has been shown to reduce the stereotyping and prejudice of perspective takers (Galinsky et al., 2000).

However, prior research in this area focuses almost exclusively on perspective takers, with very few studies investigating the consequences of perspective taking on targets whose perspectives have been taken (Goldstein et al., 2014). In online reviews context, the extent to which reviewers take the perspective of review readers (vs. their own) can have a nontrivial impact on the target – review readers. In what follows, we argue that the level of perspective taking demonstrated by a reviewer is positively associated with the helpfulness perception of the review, and we propose perceived reviewer attractiveness as a primary reason underlying this effect.

First, we argue that a review taking the perspective of prospective consumers can increase the reviewer's attractiveness perceived by consumers. In general, perspective taking allows perspective takers to better appreciate the situations that the target is encountering, resulting in greater empathic concern for the target (Hodges, Kiel, Kramer, Veach and Villanueva, 2010). As the target of perspective taking in our setting, review readers are likely to have this association in their lay beliefs given their own prior experiences as perspective takers. As a result, when prospective consumers read a review in which their own perspective has been taken (vs. not taken), they will perceive the reviewer to be more empathic for them and more concerned about them. Since greater empathy and concern from another individual increases one's positive feelings toward that individual (Newcomb, 1956), review readers should perceive the reviewer who takes (vs. does not take) the readers' perspective to be more attractive and like the reviewer to a greater extent (Goldstein et al., 2014).

Next, we posit that perceived reviewer attractiveness should positively impact review readers' perception of review helpfulness. As one of the contributors to source credibility (Sussman and Siegal, 2003), attractiveness has been shown to facilitate persuasion (Till and Busler, 1998). Applied to our setting, a more attractive reviewer should result in readers' perception of greater source credibility and a more persuasive review, which in turn

leads the review to be perceived more helpful. Taken together, we propose the following hypotheses:

Hypothesis 1: A reviewer's perspective taking in a review is positively associated with its perceived helpfulness.

Hypothesis 2: The effect of a reviewer's perspective taking on perceived review helpfulness is mediated by perceived reviewer attractiveness.

STUDY 1

In the first study we used real-world online reviews of mobile apps from Apple's App Store to test H1, as the review system in App Store represents a natural persuasion context where both our independent and dependent variables can be quantified.

Data

We collected the data in April 2010 by first identifying apps ranked in the top 500 by popularity under each of the 20 categories in the first three months of 2010. Among these apps, 40,417 had at least one review and we collected all their historical reviews. For each review, we recorded its rating, text review content, helpful votes, and total votes. We also recorded the following app-level information: average rating, count of all ratings, category, whether or not the app was free, and the number of days since the review was posted. After filtering out reviews that were not written in English, had no content, or had a rating score of zero, 1,623,497 reviews remained. Among this set, 418,415 reviews had received at least one vote.

Variables

We measured our dependent variable, review helpfulness, using the ratio of the number of "Yes" votes divided by the total number of votes (Yin et al., 2014). The value of review helpfulness ranged from 0 to 1, with a higher percentage representing a more helpful review.

The extent to which reviewers take the perspective of review readers is operationalized based on the different usage pattern of personal pronouns. The use of first-person pronouns (e.g., 'I,' 'me,' 'my') has been reliably linked to self-focus of individuals (Pennebaker, Mehl and Niederhoffer, 2003). On the other hand, second-person pronouns (e.g., 'you,' 'your') are indicators of other-focus of individuals' attention (Simmons, Gordon and Chambliss, 2005). Following prior research, we measured perspective taking by computing the ratio of second-person pronouns divided by the sum of first-person pronouns and second-person pronouns in each review (Simmons et al., 2005).

We controlled for a number of variables that influence review helpfulness, including review rating, length, and reading difficulty. Review length was quantified by the number of words in a review. Reading difficulty was measured by the Gunning Fox Index (GFI). We also controlled for app-level variables, including average

rating, number of ratings, whether or not the app is free, the number days since the review was posted, and app category.

Models and Empirical Results

Since the dependent variable was a proportion bounded between 0 and 1, OLS regression models may yield biased coefficients (Yin et al., 2014). To accommodate the bounded nature of this variable, we relied on fractional logit models as our main analysis (Baum, 2008). As shown in Table 1, the coefficient of perspective taking was positive and significant ($\beta = 0.036, p < 0.01$), providing initial evidence for our first hypothesis.

We also conducted two robustness checks. First, to address a potential selection bias (i.e., not all reviews received votes), we employed Heckman’s two-step sample selection model. Second, we used the number of helpful votes as an alternative measure of review helpfulness and included the total number of votes as a covariate. Negative binomial regression was selected because the dependent variable was a count variable with its variance greater than mean (Chen and Lurie, 2013). Results from these two robustness checks (see Models 2 and 3 of Table 1) were consistent with our prediction, providing further evidence for H1.

Variables	Model 1	Model 2	Model 3
	Fractional Logit Model (DV: review helpfulness)	2 nd Stage of Heckman Model (DV: review helpfulness)	Negative Binomial Model (DV: number of helpful votes)
Constant	-1.042*** (0.037)	0.193*** (0.008)	-0.286*** (0.010)
Number of total votes			0.105*** (0.001)
Rating	0.406*** (0.002)	0.089*** (0.000)	0.150*** (0.001)
Length	0.004*** (0.000)	0.001*** (0.000)	0.002*** (0.000)
Reading Difficulty	0.013*** (0.001)	0.003*** (0.000)	0.009*** (0.001)
Average Rating	-0.106*** (0.005)	-0.024*** (0.001)	-0.088*** (0.002)
Count of Ratings	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Is Paid or Not	0.063*** (0.007)	0.031*** (0.002)	0.097*** (0.003)
Perspective	0.036***	0.010***	0.027***

Taking	(0.009)	(0.002)	(0.004)
Category Dummies	Included	Included	
N	301517	1061680	301517
Log Likelihood	-163583.96	-680586.08	-512614.33
Chi Square	46756.43	58336.76	47095.34

Standard errors in parentheses; * p<0.1, ** p<0.05, *** p<0.01

Table 1. Empirical Results

Discussion

In Study 1, we tested the main effect of reviewers’ perspective taking on review helpfulness using real-world reviews from Apple’s App Store. The results provided initial evidence for H1.

However, this study has a number of limitations. First, unobserved factors that correlate with perspective taking and also influence review helpfulness could present possibilities for alternative explanations. Second, reliance on archival data in this study precludes us from measuring the process variable of perceived reviewer attractiveness. Third, it was unclear whether the effect of perspective taking on review helpfulness would carry over to more downstream consequences, such as consumers’ attitude toward the product/service. Finally, a reviewer’s perspective taking was quantified based on personal pronouns without taking into account individual differences among review readers. Thus, we designed a laboratory experiment in Study 2 with these limitations in mind.

STUDY 2

The primary goals of Study 2 were to address alternative explanations for the findings of Study 1 by manipulating rather than measuring perspective taking, examine our proposed mediator – perceived reviewer attractiveness, and also explore the downstream consequence of reviewers’ perspective taking beyond review helpfulness. Participants took part in a hypothetical online decision-making task in which they read a restaurant review with either a high or a low level of perspective taking, evaluated the review and reviewer, and also assessed their attitude toward the restaurant. We selected this service context because restaurant reviews are generally familiar to undergraduate students. The incorporation of a between-subject design makes it possible to hold constant the substantive content of the review and rule out alternative explanations.

Stimulus Materials

We developed stimuli for this study in two steps. First, we consulted actual reviews from Yelp and created a positive review with a low level of perspective taking. We focused on the positive valence because positive reviews are more prevalent in most review settings (Resnick and

Zeckhauser, 2002). This review described the dining experience from the reviewer's perspective, including only first person pronouns (e.g., 'I,' 'me,' 'mine'). In the second step, we constructed a corresponding treatment review with a high level of perspective taking, in which the reviewer describes the experience from a reader's perspective. The only difference between the two treatment reviews is personal pronouns: the high perspective-taking review contains only second person pronouns (e.g., 'you,' 'your').

Procedure

82 undergraduates from an introductory IS course participated for exchange of extra credit. In the cover story, participants imagined that they were looking for a restaurant in the city from Yelp, and their search returned a restaurant named "Joe's" with acceptable price and distance. They haven't been to this restaurant before, and they were asked to read an online review randomly selected from its former customers. Each participant was randomly assigned to one of the two conditions, presented with a review of "Joe's" at either a high or a low level of perspective taking.

After reading the review, each participant was asked to report their perception of review helpfulness and their attitude toward the restaurant using a 9-point semantic differential scale. In addition, participants answered two questions about their perception of reviewer attractiveness on a 9-point scale. As a manipulation check, participants also rated the level of perspective taking in the review on a 9-point Likert scale. In the end, each participant reported their expertise with restaurants, frequency of reading restaurant reviews, and their propensity to take others' perspective. These measures are presented in the appendix.

Results

Before further analysis, we conducted a manipulation check. The level of perspective taking in the low condition was significantly lower than that in the high condition ($M = 4.93$ vs. 7.43 , $t(81) = 5.73$, $p < .001$). Thus, the manipulation of our independent variable was successful.

We utilized OLS to test the main effect of perspective taking on review helpfulness, as hypothesized in H1. We entered participants' expertise with restaurants, frequency of reading restaurant reviews, and their propensity to take others' perspective as control variables. Results showed that the perception of a reviewer's perspective taking was significantly and positively associated with perceived review helpfulness ($\beta = .21$, $t(81) = 3.29$, $p = .002$).

Next, we conducted a mediation analysis that is based on bootstrapping, using SPSS macro *MEDIATE*. We chose bootstrapping method due to the reasons that it does not require the assumption of a normal sampling distribution and it's effective with smaller sample sizes (Shrout and

Bolger, 2002). Furthermore, this method can directly test the statistical significance of mediation effects. Results showed that: a reviewer's perspective taking had a positive effect on reviewer attractiveness ($\beta = .26$, $t(81) = 3.59$, $p < .001$); reviewer attractiveness had a positive effect on perceived review helpfulness ($\beta = .50$, $t(81) = 6.16$, $p < .001$). The indirect effect of a reviewer's perspective taking on review helpfulness through reviewer attractiveness was significant as zero is not included in its bias-corrected confidence interval (95% CI = [.05, .26]), providing evidence for H2. Finally, the effect of perspective taking on perceived review helpfulness became insignificant after reviewer attractiveness was controlled for ($\beta = .08$, $t(81) = 1.37$, $p = .17$), suggesting full mediation.

In addition, we did a supplementary analysis to investigate the downstream consequence of reviewers' perspective taking beyond review helpfulness – consumers' attitude toward the restaurant. We used SPSS macro *PROCESS* to test the serial mediation effects. The results showed that the total effect of perspective taking on consumer attitude was positive and significant ($\beta = .22$, $t(81) = 4.11$, $p < .001$); perspective taking had a positive effect on attractiveness ($\beta = .26$, $t(81) = 3.59$, $p < .001$); attractiveness had a positive effect on review helpfulness ($\beta = .50$, $t(81) = 6.11$, $p < .001$); review helpfulness had a positive effect on consumers' attitude ($\beta = .60$, $t(81) = 7.97$, $p < .001$). The indirect effect of perspective taking on consumers' attitude through the successive mediators of reviewer attractiveness and review helpfulness was significant (95% CI = [.03, .18]). Finally, the effect of perspective taking on attitude became insignificant after the mediators were controlled for ($\beta = .07$, $t(81) = 1.95$, $p = .06$). These results indicated that the significant effect of perspective taking on consumers' attitude was fully and successively mediated by perceived reviewer attractiveness and perceived review helpfulness.

Discussion

This experiment replicated the major findings of Study 1, provided evidence for the mediating effect of reviewer attractiveness as hypothesized in H2, and established consumers' attitude as a more downstream consequence of reviewers' perspective taking efforts.

GENERAL DISCUSSION

Taken together, a field study utilizing real reviews from Apple's App Store and an experiment provide converging evidence for the positive effect of taking review readers' perspective on their helpfulness evaluation of reviews. The experiment in Study 2 also revealed that the positive effect of perspective taking can be explained by perceptions of reviewer attractiveness, and that this effect carries over to more downstream consequences beyond review helpfulness.

Prior investigations of factors influencing review helpfulness have focused primarily on review and reviewer characteristics, while the social aspect of the review writing process has not received adequate attention. Focusing on perspective taking in this paper, we posit and find that whether reviewers stand in the shoes of perspective consumers has a nontrivial effect on consumers' evaluation of review helpfulness and their attitude, even though they are total strangers. We also hypothesize and demonstrate perceived reviewer attractiveness as a probable explanation for the positive effect of perspective taking, deepening our understanding of the role of perspective taking in online reviews. Finally, this paper also contributes to the literature on perspective taking, as almost all research focused exclusively on the impact of perspective taking on the perspective taker rather than the target (Goldstein et al., 2014). Our paper represents one of the first attempts to demonstrate and explain the effect of perspective taking on the judgment and attitude of its target.

Our findings also offer practical implications for product/service providers, review platforms, and reviewers. For example, review platforms can take into account perspective taking as they design review-writing guidelines to promote more helpful reviews. In addition, reviewers who strive to provide more helpful content should stand in the shoes of future readers rather than their own. In fact, changing their perspective like relying on 'you' rather than 'I' is a much simpler strategy of writing reviews than improving the quality or length of reviews that have been advocated in prior research (e.g., Mudambi et al., 2010).

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