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## Risk versus reward: when will travelers go the distance?

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# Risk versus Reward: When Will Travelers Go the Distance?

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## Abstract

Online reviews have a powerful influence on travel purchase decisions and outweigh other considerations, including price. Price and location are primary factors influencing hotel selection. This research investigates the influence of reviews and location on travel decisions for a spring break vacation in Cancun. Prospect theory and judgmental heuristics provide a theoretical foundation for the prediction that people will exert greater effort to avoid risk versus seek reward. Participants chose between two resorts that varied in review valence and distance from the popular area in an experimental design. Participants preferred a resort with neutral versus negative reviews regardless of distance, but preference for a positive versus neutral resort declined as distance increased. When both resorts had neutral reviews, location was the main determinant of lodging choice. The findings suggest that locational superiority can be offset by negative reviews, whereas locational inferiority can be overcome by maintaining good reviews online.

## Keywords

online reviews, location, travel decisions, prospect theory, judgmental heuristics, asymmetry

## Introduction

Online reviews have a powerful influence on consumer purchase decisions. According to the Local Consumer Review Survey, “84% of consumers trust online reviews as much as a personal recommendation.” Moreover, 90% of consumers form an opinion about a business after reading less than ten reviews (BrightLocal 2016). Travel is the Internet’s largest commercial product category (Agag and El-Masry 2016). More than 57% of travel purchases are made online (Statistic Brain 2016), and up to 95% of travelers read customer reviews before booking a trip (Ady and Quadri-Felitti 2015). Therefore, the influence of online reviews is magnified for the travel industry. Customer reviews are one of the most significant predictors to explain hotel business performance (Kim and Park 2017). Positive reviews are associated with increased occupancy, RevPAR, and sales (Phillips et al. 2017; Xie, Zhang, and Zhang 2014; Ye, Law, and Gu 2009).

Reviews outweigh other factors, including price (Book, Tanford, and Chen 2016; Book et al. 2018; Noone and McGuire 2014), brand familiarity (Noone and McGuire 2013), and preexisting attitudes (Tanford and Montgomery 2015). One of the most important hotel decision drivers is location (Lockyer 2005), which has not been investigated in review research. Location and price represent distinct dimensions of lodging decision drivers (Tanford, Raab, and Kim 2012).

Knowledge of the influence of customer reviews is increasing, but there is much to learn about the theoretical underpinnings of reviews (K. Zhang et al. 2014). This research applies principles of heuristics and dual processing

systems to predict and explain the influence of reviews. Heuristics are mental shortcuts used to simplify the decision process (Tversky and Kahneman 1974). The online purchasing environment is replete with heuristic cues that create a fertile ground for the use of heuristics. Two cognitive systems are recognized: system 1 (heuristic), which processes information automatically, and system 2 (systematic), which involves cognitive effort. It has been argued that all heuristics can be reduced to a set of simple effort reduction principles (Shah and Oppenheimer 2008). While heuristics serve to reduce cognitive effort, location involves physical effort. This research defines physical effort as the distance people must travel to stay at a resort with more favorable reviews than a closer alternative.

There is an asymmetry effect for online reviews, such that negative reviews are more impactful than positive reviews (Book, Tanford, and Chen 2016; Book et al. 2018; Chen and Lurie 2013; Park and Nicolau 2015). The negativity bias is an example of asymmetry effects in information processing, whereby negative cues evoke an emotional reaction, causing people to weight them more heavily than positive cues (Taylor 1991). According to prospect theory

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(Kahneman and Tversky 1979), people assign values differently to gains and losses when making choices. People are risk-averse, so the negative value of a loss is weighted more heavily than the positive value of a gain. This can be explained by system 1 (heuristic) versus system 2 (systematic) processing (Kahneman 2011). Negative reviews are expected to activate heuristic processing; therefore, travelers will seek to avoid the risk of a bad travel experience and underutilize other relevant information. Positive reviews do not involve risk, and travelers are expected to use systematic processing and utilize other cues including distance.

This research addresses the intensifying issue of online traveler reviews. It investigates the influence of distance and review valence as determinants of travel purchase decisions. Distance is an important lodging selection factor that has not been investigated in the online review environment. The findings may help operators overcome locational disadvantage, and provide guidance to mitigate the effects of negative reviews and take advantage of positive reviews. The research is theory-driven, and provides insight into the role of heuristics as effort reduction. It links asymmetry effects to the risk aversion principle of prospect theory. The theories lead to predictions that are tested in a purchasing context that is highly relevant in today's society.

## Literature Review

### *The Influence of Customer Reviews*

Two key findings emerge from the online review literature. First, reviews outweigh other factors that are considered important decision drivers. Second, negative reviews have a more powerful impact than positive reviews. Many of these studies use experimental methods to isolate the impact of review characteristics on travel purchase decisions.

*Reviews outweigh other factors.* The adage "price is king" is no longer valid in the online purchasing environment (Book et al. 2018). In one experiment, student subjects chose between two resorts for a spring break vacation in Cancun. One resort had positive reviews, while the other had negative reviews but was priced lower. Despite the fact that students tend to be budget conscious, they were less likely to choose the negatively reviewed resort, even though they considered it a better value as the discount increased (Book et al. 2018). The researchers took this a step further to determine if an extreme discount (50%) would motivate Las Vegas travelers to choose a negatively reviewed casino-resort versus a resort with neutral reviews (Book, Tanford, and Chen 2016). Again, price did not influence likelihood to select the resort. Further evidence was provided by Noone and McGuire (2014), who obtained significant effects of review valence and aggregate ratings on evaluations of hotel quality, but no effect for price. Price influenced value perceptions, but to a lesser extent than review valence (Noone and McGuire 2014).

Using discrete choice analysis, Noone and McGuire (2013) found that review valence had a stronger effect on hotel choice than any other variable, including price, aggregate rating, TripAdvisor ranking, and brand familiarity. Customer reviews can influence consumers to make choices that go against their preexisting attitudes. College students chose between two Cancun resorts for a spring break vacation, one of which was described as a "green" resort. When reviews for the green resort were predominantly negative, pro-environmental participants were more likely to select the nonsustainable resort, even though they experienced cognitive dissonance by doing so (Tanford and Montgomery 2015).

Property location is key decision driver that has not been investigated in terms of reviews. When price is not considered, location is the most important factor in hotel selection, followed by service (Chan and Wong 2006). Four areas were identified as the top attributes in hotel selection: location, price, facilities, and cleanliness (Lockyer 2005). Location and price represent distinct decision drivers, as price reflects value/quality whereas location involves utility/convenience (Tanford, Raab and Kim 2012). Consumers equate price with quality, and therefore expect a better quality experience when paying a higher price (Zeithaml 1988). On the other hand, staying at less desirable location can detract from the quality of the travel experience. Research indicates that user-generated content influences travelers' pretravel expectations and posttravel perceptions (Narangajavana Kaosiri et al. 2017). Moreover, location is considered a core resource, which has a stronger influence on perceptions of and satisfaction with the travel experience compared to supporting factors (Narangajavana Kaosiri et al. 2017). Will consumers sacrifice location to avoid a negatively reviewed property or stay at a property with positive reviews? This decision involves a tradeoff between two dominant factors that influence the travel experience, whereas price is relevant primarily in the prepurchase stage.

*Negative reviews outweigh positive reviews.* An asymmetry effect exists, such that negative reviews are weighted more heavily than positive reviews (Chen and Lurie 2013; Park and Nicolau 2015). In Book, Tanford, and Chen's (2016) research, a price decrease did not increase the likelihood to choose a negatively reviewed resort, but a price increase reduced the likelihood to choose a positively reviewed resort. Negative reviews attenuated the effect of internal reference price in an experiment by Nieto-García, Muñoz-Gallego, and González-Benito (2017). As reference price increased, people increased their willingness to pay for a positively reviewed hotel to a greater extent than they did for a negatively reviewed hotel. An experiment using a simulated travel review website manipulated review content, valence, numerical ratings, and framing (Sparks and Browning 2011). Framing was defined as whether positive or negative reviews appeared first in the sequence. Negative framing accentuated

the influence of predominantly negative reviews and produced lower booking intentions, but framing did not influence booking intention when reviews were mostly positive. The presence of ratings influenced booking intention for positive but not negative reviews (Sparks and Browning 2011).

An analysis of restaurant reviews on Yelp suggests that negative but not positive reviews are considered more valuable than neutral reviews (Chen and Lurie 2013). Moreover, temporal contiguity cues, that is, reviews written on the same day as the dining experience, increase the perceived value of positive but not negative reviews. Consumers tend to attribute negative reviews to product characteristics, and positive reviews to the reviewer (Chen and Lurie 2013). A similar dichotomy was found with a large sample of restaurant reviews in London and New York (Park and Nicolau 2015). Negative reviews had the strongest impact on usefulness (an extrinsic cue) whereas positive reviews more strongly influenced enjoyment (an intrinsic cue). Asymmetry effects may operate for different types of individuals (Tsao et al. 2015). A large number of negative reviews is more damaging to conformist individuals, whereas a large number of positive reviews has a more favorable impact on nonconformists (Tsao et al. 2015).

The current research investigates asymmetry effects in decisions to select a positively or negatively reviewed resort compared to a neutral alternative. It pits review valence against location to determine the conditions under which travelers will select a less desirable location to stay at a positively reviewed resort or avoid a negatively reviewed resort.

### *Theoretical Foundation*

The research design and hypotheses are built upon theories of dual processing systems and principles of judgmental heuristics. The elaboration likelihood model (Petty, Cacioppo, and Schumann 1983) is often applied in studies on e-WOM including the influence of online reviews (Filiari and McLeay 2014). The theory suggests that reviews can be processed via central or peripheral routes depending on the level of involvement (J. Lee, Park, and Han 2008). A survey asked travelers to recall recent experiences reading reviews during travel planning (Filiari and McLeay 2014). The findings showed that central (information quality) and peripheral (rankings) cues were significant predictors of information adoption, providing support for the dual process approach. In a retail setting, involvement, quality of negative reviews, and proportion of negative reviews were manipulated experimentally (J. Lee, Park, and Han 2008). Under low involvement, evaluations of the product became less favorable as the proportion of reviews increased regardless of quality. Under high involvement, the proportion of reviews had a stronger impact when they were high versus low quality (J. Lee, Park, and Han 2008). Both of these studies support a dual process approach for the influence of reviews.

A dual processing framework was proposed by K. Zhang et al. (2014) applying the heuristic-systematic distinction. In a manner similar to the ELM, the authors suggest that argument quality is a systematic factor and source credibility and quantity are heuristic factors. Heuristic cues are used to reduce effort in decision making. Participants who had recently read restaurant reviews were asked to recall them and rate informative and persuasive content (systematic factors) along with source credibility and quantity (heuristic factors). All four factors influenced perceived argument quality and behavioral intentions, but the model did not distinguish when people will rely on heuristic versus systematic cues. Insight into this question was obtained by L. Zhang, Wu, and Mattila (2016), who found that high information load increased reliance on peripheral cues in restaurant reviews.

### *Heuristics and Effort Reduction*

The dual processing approach holds that there are two cognitive systems. System 1 (heuristic) processes information automatically, whereas system 2 (systematic) is slow and deliberate (Kahneman 2011). Heuristics are mental shortcuts that simplify the decision process (Tversky and Kahneman 1974), and they are thought to operate under system 1 processing as a way to reduce cognitive effort (Kahneman 2011). The “cognitive miser” theory posits that people seek to conserve mental effort especially when they are under time pressure or making complex decisions (Fiske and Taylor 1991).

It has been argued that all heuristics can be reduced to a set of simple effort reduction principles (Shah and Oppenheimer 2008). The authors propose five effort reduction tasks: examining fewer cues, reducing the difficulty of retrieving and storing cues, simplifying the weighting principle, integrating less information, and examining fewer alternatives. This framework has not been applied to consumer decision making, but is highly relevant for processing customer reviews. Customers may attend to certain cues in the online review site while disregarding others. They may weight factors differently, such as placing more weight on negative versus positive reviews. They may focus on the first few reviews, which create framing effects (Sparks and Browning 2011). When choosing among multiple travel options, they may use heuristics to eliminate some options and decide between fewer alternatives.

Evidence for the role of effort in consumer decisions was obtained by Darke, Freedman, and Chaiken (1995). In a simulated shopping experiment, shoppers would walk a considerable distance to search for a better price for an expensive product, but use heuristic discount cues and stop searching if the base price is low. The “effort heuristic” was introduced to suggest that people use effort as a substitute for quality (Kruger et al. 2004). Participants liked a poem/painting better and thought it was worth more when it took the author/artist a longer time to create, particularly when the stimulus was ambiguous. Ambiguity triggers system 1

processing in the absence of alternatives, but uncertainty requires mental effort (system 2) if it creates conscious doubt (Kahneman 2011).

In this research, physical effort is defined as traveling a farther distance to stay at a resort that varies in review valence compared to an alternative that is in a preferred location. Physical effort is distinct from cognitive effort, and may be linked to the use of heuristic versus systematic processing of online reviews. In the absence of other heuristic cues, distance is expected to play a bigger role in travel purchase decisions. Physical distance has not been investigated in online review research, but psychological distance has been shown to influence perceptions, attitudes, and decisions for restaurant reviews (Chen and Lurie 2013) and hotel reviews (Wu et al. 2017). Psychological distance reflects the influence of temporal contiguity, which is defined as the distance between the moment of leaving reviews and the moment of experience. When reviews are separated from the experience, they can be perceived as less trustworthy and influential, but only in the absence of more powerful cues (Chen and Lurie 2013; Wu et al. 2017).

### *Asymmetry and Risk Avoidance*

The disproportionate impact of negative reviews illustrates the asymmetry effect in information processing (Peeters and Czapsinski 1990; Taylor 1991). Evaluatively negative stimuli have higher impact than equally intense positive stimuli (Peeters and Czapsinski 1990). Negative cues evoke immediate emotional, cognitive, and social responses (Taylor 1991), and thereby activate system 1 processing. According to prospect theory, people assign values differently to gains and losses (Kahneman and Tversky 1979). People are risk-averse, so the negative value of a loss is weighted more heavily than the positive value of a gain. Prospect theory was proposed as an alternative to economic theory to explain consumer choice (Thaler 1980).

Consumer research indicates that negative information is weighted more heavily for unfamiliar versus familiar brands, whereas equal weight is placed on negative and positive information for familiar brands (Ahluwalia 2002). The risk-aversion explanation of the negativity effect is supported in the online review environment using an analysis of millions of observations from an Internet retailer (Maslowska, Malthouse, and Viswanathan 2017). Review valence had the largest effect on product sales when price was high and there was a large volume of reviews. Valence had minimal influence when price was low and there was a single review. The authors explain this finding in terms of prospect theory by suggesting that consumers will take a risk and purchase a product with fewer and/or negative reviews when potential losses (i.e., costs) are low. However, they need reassurance in terms of number and valence of reviews when the potential loss (cost) is high (Maslowska, Malthouse, and Viswanathan 2017). Likewise, when uncertainty about hotel quality exists, people perceive

negative reviews as more helpful than positive reviews (M. Lee, Jeong, and Lee 2017). As heuristics are activated to resolve ambiguity, asymmetry effects suggest that negative reviews are more influential when the brand is unfamiliar or the product quality is uncertain.

This research links effort and asymmetry through principles of heuristics. Participants make travel choices using the paired resort paradigm, in which participants choose between two lodging options (Tanford, Baloglu, and Erdem 2012). A “base” resort is located in the popular resort area and has neutral or negative reviews, whereas the “target” resort is a specified distance away and has neutral or positive reviews. When reviews for the closer (base) property are negative, the asymmetry effect predicts that people will avoid risk regardless of distance in favor of a farther (target) resort. When reviews are neutral, distance will influence decisions along with review valence. This leads to the following hypotheses regarding the effect of *base* resort valence:

*Hypothesis 1a:* When base reviews are negative, distance will not influence ratings of likelihood to choose the target resort.

*Hypothesis 1b:* When base reviews are neutral, ratings of likelihood to choose the target resort will be lower as distance increases.

*Hypothesis 2a:* When base reviews are negative, distance will not influence evaluations of the target resort.

*Hypothesis 2b:* When base reviews are neutral, evaluations of the target resort will be lower as distance increases.

In this research, the farther (target) resort has neutral or positive reviews. When base reviews are neutral, there is uncertainty that can be resolved by attending to other cues. When the target resort is positive, its valence may offset the impact of distance. When both reviews are neutral, distance is the only diagnostic cue and is expected to influence evaluations and product selection. Therefore, when considering the effect of the *target* resort in absence of the negativity effect, the property becomes less appealing as distance increases. When it comes to lodging choice, there is no compelling reason to choose the target resort since its location is less desirable. Therefore, the following hypotheses are proposed:

*Hypothesis 3:* When both resorts have neutral reviews, participants will evaluate the target resort less favorably as distance increases.

*Hypothesis 4:* When both resorts have neutral reviews, participants will choose the base resort more often than the target resort.

### *Willingness-to-Pay*

Evidence for the operation of heuristics on willingness-to-pay was obtained by Book, Tanford, and Chen (2016), who

**Table 1.** Demographic Profile.

Characteristic	Experiment 1a (n=145)	Experiment 1b (n=151)	Experiment 2 (n=305)
	Valid Percent	Valid Percent	Valid Percent
Gender			
Male	39.31	29.14	38.16
Female	60.69	70.86	61.84
Age group			
18–21	40.00	51.66	47.52
22–29	56.55	45.03	45.87
≥30	3.45	3.31	66.01
Annual income			
<\$15,000	57.64	56.38	58.74
\$15,000–\$24,999	21.53	23.49	19.93
\$25,000–\$49,999	12.50	14.09	12.59
≥\$50,000	8.33	6.04	8.74
Year in school			
First year	3.45	5.96	9.87
Sophomore	15.17	16.56	17.76
Junior	34.48	37.09	34.87
Senior	46.90	40.40	35.20
Graduate	0.00	0.00	2.30
Ethnic group			
Asian	51.75	43.33	54.05
Caucasian	26.57	36.00	28.72
Hispanic	12.59	16.00	8.45
African American	1.40	0.67	3.38
Other	7.69	4.00	5.41

demonstrated the anchoring principle, whereby judgments are anchored on an initial value (Tversky and Kahneman 1974). Customers were willing to pay more for a positively reviewed hotel when the reference price was extreme (50% higher than a neutral alternative) compared to when the reference price was less extreme (10% or 30% higher). The amount of discount for a negatively reviewed hotel did not influence WTP (Book, Tanford, and Chen 2016). Furthermore, negative reviews attenuate the effect of reference price, whereas positive reviews enhance it (Nieto-García, Muñoz-Gallego, and González-Benito 2017). In both studies, a reference price served as an anchor. In this research, WTP is measured without a reference price. If consumers will not book a negatively reviewed hotel even at a steep discount, it follows that they will be willing to pay more per night to avoid risk when the alternative is neutral.

*Hypothesis 5:* Participants will be willing to pay more per night for a resort with neutral reviews versus a resort with negative reviews.

Since a high reference price increases WTP for a positively reviewed hotel, the same effect is expected without a reference price, although the effects may not be as strong as the negative-neutral scenario because of asymmetry.

*Hypothesis 6:* Participants will be willing to pay more per night for a resort with positive reviews versus a resort with neutral reviews.

## Methodology

### Subjects

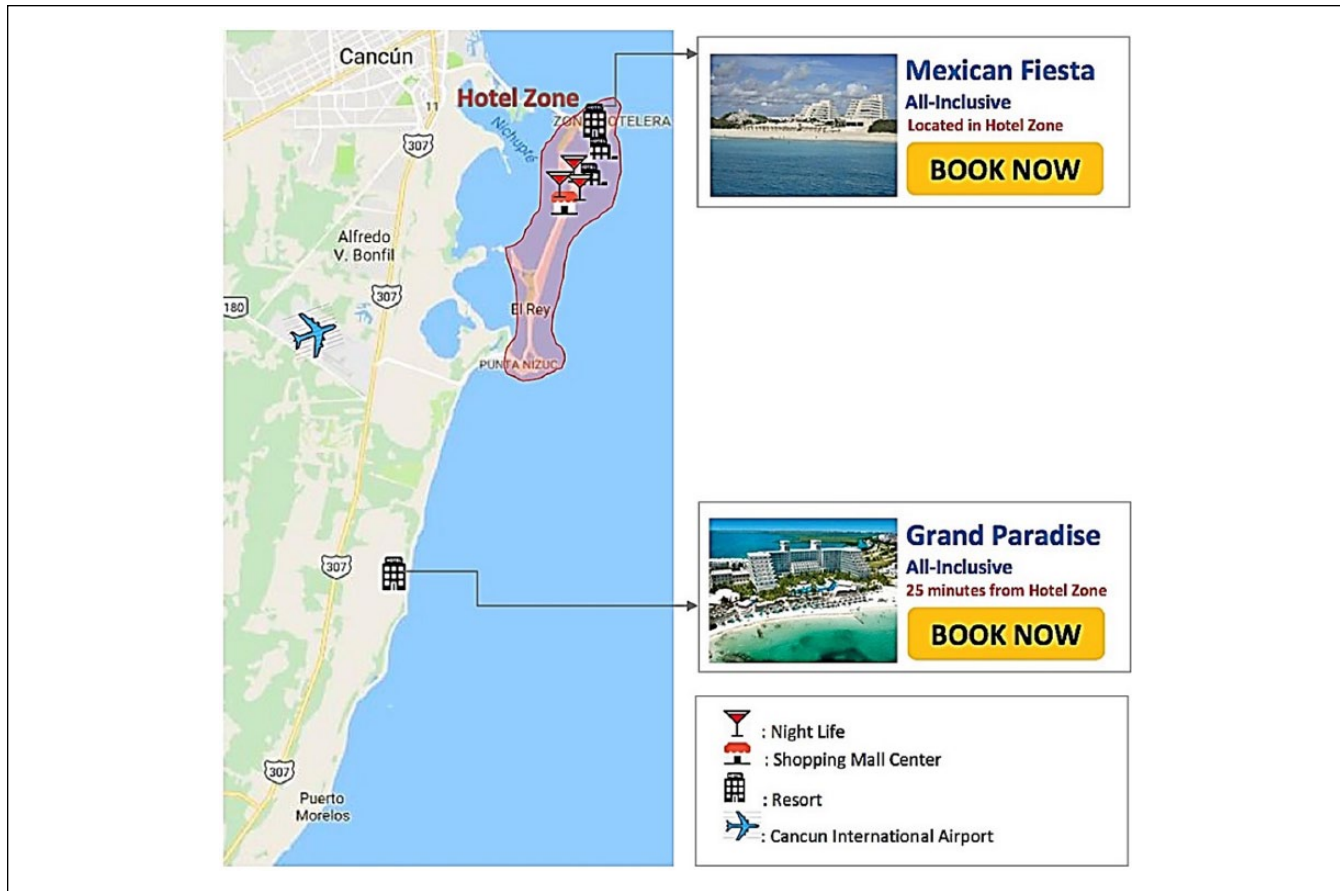
Experimental research was conducted to investigate the effects of review valence and distance on travel decisions. Preliminary studies calibrated the effect of distance for positive and negative reviews separately, which were combined factorially for the main study. The research used the “Spring Break Paradigm,” in which college students make hypothetical travel choices for a spring break vacation in Cancun, Mexico. This paradigm has been applied successfully in prior research on pricing (Tanford, Erdem, and Baloglu 2011) and the influence of customer reviews (Book et al. 2018; Tanford and Montgomery 2015). The approach is ideal for experimental research, where a homogeneous sample is beneficial (Calder, Phillips, and Tybout 1981). Although research using college students is often criticized, in this case they are the target population, since Cancun is one of the top spring break destinations (Meltzer 2017). Students had to be at least 18 years old to participate. A demographic profile of the sample is provided in Table 1.

### Stimuli

Participants evaluated two all-inclusive Cancun resorts side-by-side, along with photos and descriptions adapted from Expedia®. The descriptions were followed by traveler reviews and ratings modified from TripAdvisor®, which varied in valence according to the experimental manipulations. The resorts were pretested to ensure that they were equally appealing, and the reviews were pretested for the appropriate valence. The distance manipulation was implemented on a cover page that showed the distance between the two resorts and the popular “Hotel Zone” where students typically stay for spring break. The “base” resort was always on the left and was located in the Hotel Zone. The “target” resort was on the right, and was the specified distance from the Hotel Zone. The distance manipulation was repeated on the second page that contained the resort descriptions and customer reviews. Figure 1 provides an example of the distance manipulation and Figure 2 shows the resort descriptions and a sample review. The example depicts the 25-minute distance with negative base reviews and neutral target reviews.

### Procedure

Data were collected in classrooms at a major US university using printed color questionnaires. Students were randomly assigned to experimental conditions by prearranging the packets in random order. After reading the materials, participants rated the likelihood to choose each resort on a 7-point Likert-type scale from 1 (extremely unlikely) to 7 (extremely likely).



**Figure 1.** Stimulus example.

They made a binary choice for one of the two resorts. Each resort was rated on three 7-point Likert-type scales from strongly disagree to strongly agree on the following items “This resort is appealing to me,” “This resort is a good choice for Spring Break,” and “I expect my experience to be enjoyable.” These measures were based on previous research investigating travel purchase decisions using experimental designs (Book, Tanford, and Chen 2016; Tanford, Baloglu, and Erdem 2012; Tanford and Montgomery 2015). Participants in the main study rated willingness to pay for each resort per night on an interval scale from \$100 to \$550 in \$25 increments. The instrument concluded with demographics and manipulation checks. Subjects rated the favorability of reviews for each resort on a 7-point Likert-type scale from 1 (extremely unfavorable) to 7 (extremely favorable). They were asked how far in minutes each resort was from the Hotel Zone on a 14-point scale in 5-minute increments from 0 to 60 and more than 60.

## Preliminary Studies

### Design

Two experiments were conducted to establish the influence of distance for positive and negative reviews separately. Experiment 1a evaluates the extent to which consumers will

travel farther to avoid a negatively reviewed resort in favor of a resort with neutral reviews. Experiment 1b evaluates the extent to which consumers will travel farther to stay at a positively reviewed resort versus a resort with neutral reviews. Both experiments use a 3 (distance)  $\times$  2 (valence)  $\times$  2 (resort) mixed design. Distance is defined as the distance of the target resort from the Hotel Zone (5, 25, or 45 minutes). Resort is defined as which resort (Mexican Fiesta or Grand Paradise) is the base resort on the left or the target resort on the right. This manipulation is intended to test the equivalence of the two resort descriptions/photos for use in the main experiment. Valence is a within-subjects factor, which reflects the reviews for the base and target resort, respectively. In experiment 1a (negative-neutral), the base resort has six negative reviews and the target resort has six neutral reviews. In experiment 1b (neutral-positive), the base resort has six neutral reviews and the target resort has six positive reviews. We did not include a negative-positive condition, because previous research indicates that review valence tends to overpower other variables when the differences are clear-cut (Book, Tanford, and Chen 2016; Book et al. 2018; Tanford and Montgomery 2015). There were 145 participants in experiment 1a and 151 participants in experiment 1b. Participants within each experiment were randomly assigned to one of the three between-subjects conditions.





Resort 1: Mexican Fiesta All-Inclusive	Resort 2: Grand Paradise All-Inclusive
	
<p><b>Located in Hotel Zone</b></p>	<p><b>25 Minutes from Hotel Zone</b></p>
<p><b>Just steps from the sea</b> This resort is renowned for its white-sand beach, considered the widest and safest beach in Cancun by locals and guests alike.</p> <p><b>Watersports fun</b> This stylish resort offers one adult outdoor pool and one family outdoor pool. Resort guests can also book a variety of water sports activities on-site.</p> <p><b>Caribbean views</b> The Mexican Fiesta Resort offers deluxe accommodation with views over the garden, lagoon or ocean. All deluxe rooms have marble floor, stylish interior design with modern amenities.</p>	<p><b>Calm-water beach</b> This pyramid-inspired Grand Paradise resort sits facing a 300-yard, white-sand beach; a huge pool stretches 125 yards along the beach.</p> <p><b>All-Inclusive resort</b> The room rate at the Grand Paradise All Inclusive covers meals, snacks, drinks, use of tennis courts and fitness center, sports gear, plus day and night activities and entertainment.</p> <p><b>Caribbean-view rooms</b> Air-conditioned guestrooms all include balconies or patios with full or partial Caribbean views. Amenities include minibars and liquor dispensers, satellite TV, in-room safes, and ceiling fans.</p>
<p><b>Traveler Reviews: Mexican Fiesta</b></p>	<p><b>Traveler Reviews: Grand Paradise</b></p>
<p><b>“Definitely won’t be back!”</b>                        Never again. The hotel stunk of mold. Doing work in the mornings down the hall so they moved us. Next room was dirty with old bed lining. We moved into a ground floor app. where cats were all over are patio. Staff were very rude and did not care. This is our second time in Mexico but never stay here again. My mates rooms were ok but I was not happy just wanted to go home. Poor hotel.</p>	<p><b>“Nice resort but not satisfied with the service”</b>                        The hotel itself is nice..very well kept.. there were 4 adults in an ocean view room..rooms were spacious.. decent bathrooms and a kitchenette.. understand some changes are being made to the hotel and I hope it's for the better.. have no complaints in general about the staff BUT it lacks interest in their customers..the good thing was that since the hotel itself had nothing to offer we had the opportunity to do things around Cancun and only went to our rooms to sleep..hopefully they will focus on their customers in the future...</p>

Figure 2. Resort description and sample review.

**Results**

**Manipulation checks.** Manipulation checks were conducted to evaluate the valence and distance manipulations. A repeated-measures analysis of variance (ANOVA) on review favorability for the base and target reviews yielded a significant effect for valence in experiment 1a ( $F_{1,141} = 12.82, p < .001, \eta^2 = .083$ ) and experiment 1b ( $F_{1,146} = 40.98, p < .001, \eta^2 = .219$ ). As intended, for experiment 1a, the base reviews were considered unfavorable ( $M = 2.13$ ) and the target reviews were considered neutral ( $M = 4.39$ ). Likewise, in experiment 1b, base reviews were rated as neutral ( $M = 3.80$ ) and the target reviews were considered favorable ( $M = 6.20$ ).

For the distance manipulation check, participants rated how far each resort was from the Hotel Zone using a 14-point scale in 5-minute increments from 0 to 60 and more than 60. Since the base resort was in the Hotel Zone and the target

resort was a specified distance away, one-way ANOVAs were conducted to analyze the effect of distance for each resort separately. For experiment 1a, the effect of distance on the target resort was large and significant ( $F_{2,140} = 130.19, p = .000, \eta^2 = .649$ ), with means of 3.31, 6.19, and 9.80 for the 5-, 25-, and 45-minute conditions, each of which differed significantly using post hoc Bonferroni tests. For experiment 1b, there was a significant effect of distance for the target resort ( $F_{2,148} = 100.59, p = .000, \eta^2 = .576$ ). Post hoc Bonferroni tests revealed significant differences between each distance level, with means of 3.31, 5.94, and 9.32 for the 5-, 25-, and 45-minute conditions. There was no effect for distance on the base resort in the Hotel Zone for experiment 1a ( $F_{2,148} = 1.04, p = .355$ ) or experiment 1b ( $F_{2,141} = .035, p = .966$ ). The manipulation checks indicate that all manipulations were effective.



**Table 2.** Main Effect of Valence on Evaluations (Preliminary Experiments).

Experiment	Valence		F <sub>1,139</sub>	Eta <sup>2</sup>
	Negative	Neutral		
Experiment 1a				
Likelihood to choose	2.30	4.44	166.40***	.545
Appealing	2.88	4.58	108.85***	.439
Good choice	2.92	4.48	67.25***	.326
Expectations	2.77	4.68	111.03***	.444
Experiment 1b				
Likelihood to choose	4.14	6.03	140.30***	.492
Appealing	4.46	5.95	110.91***	.433
Good choice	4.51	5.83	72.69***	.334
Expectations	4.45	6.07	133.45***	.479

**Resort ratings.** Likelihood to choose each resort and evaluation ratings were analyzed using  $3 \times 2 \times 2$  ANOVAs with two between-subjects factors (distance and resort) and one repeated measures factor (valence). There were no effects for resort in any of the analyses, indicating that the two resort descriptions and photos were considered equivalent as intended. There were main effects of valence on all measures, which are displayed in Table 2. In experiment 1a, likelihood to choose was higher when the resort had neutral reviews ( $M = 4.40$ ) versus negative reviews ( $M = 2.30$ ). In experiment 1b, likelihood to choose was higher when the reviews were positive ( $M = 6.03$ ) versus neutral ( $M = 4.14$ ). The effects of valence on resort evaluations were all significant. Evaluations of the neutral resort were higher than the negative resort in experiment 1a, whereas evaluations of the positive resort were higher than the neutral resort in experiment 1b. For effect size comparison, the guideline specified by Cohen (1988) was adopted, such that eta-squared values of .01, .06, and .14 are considered small, medium, and large effects, respectively. The eta-squared values shown in Table 2 indicate that the effect of review valence is large on all measures.

In experiment 1a, the analysis did not reveal a significant effect of distance on any of the measures (all  $F_s < 1$ ) and there were no interactions between distance and valence or resort. In experiment 1b, the analysis revealed significant effects for distance on each of the measures and no interactions between distance and valence or resort. Since distance was only manipulated for the target resort, it is not meaningful to report the effects of distance across the within-subjects factor. Therefore, a one-way between-subjects ANOVA was conducted on each measure for the target resort with distance as the independent variable. The results are displayed in Table 3. The effect of distance is marginally significant for likelihood to choose ( $F_{2,147} = 2.84$ ,  $p = .06$ ). Interestingly, participants report higher likelihood ( $p = .06$ ) to choose the target resort when it is 25 minutes from the Hotel Zone ( $M = 6.36$ ) versus 45 minutes from the Hotel Zone ( $M = 5.77$ ), but 5 minutes ( $M = 5.97$ ) is not significantly different from either of the farther distances. A similar result is obtained for the

**Table 3.** Effect of Distance on Evaluations of Target Resort (Experiment 1b).

	Distance			F <sub>2,147</sub>	Eta <sup>2</sup>
	5 minutes	25 minutes	45 minutes		
	n = 55	n = 47	n = 49		
Likelihood to choose	5.97 <sup>ab</sup>	6.36 <sup>a†</sup>	5.77 <sup>b†</sup>	2.84 <sup>†</sup>	.037
Appealing	5.84 <sup>ab</sup>	6.30 <sup>a†</sup>	5.70 <sup>b†</sup>	2.74 <sup>†</sup>	.038
Good choice	5.93 <sup>ab</sup>	6.11 <sup>a*</sup>	5.45 <sup>b*</sup>	3.39 <sup>*</sup>	.045
Expectations	6.09 <sup>ab</sup>	6.43 <sup>a*</sup>	5.70 <sup>b*</sup>	3.80 <sup>*</sup>	.049

Note: <sup>†</sup> $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . Means without common superscripts are significantly different at \* $p < .05$  or <sup>†</sup> $p < .10$ .

three evaluation ratings, for which distance is significant for good choice and expectations ( $p < .05$ ) and marginally significant for appealing ( $p = .068$ ). In all cases, 25 minutes is rated higher than 45 minutes, whereas 5 minutes is not significantly different than the other two distances. Effect sizes for distance are small to medium in magnitude.

The preliminary studies demonstrate the risk aversion principle, in that people will travel any distance to avoid a negatively reviewed resort. Distance becomes a deterrent and decreases the preference for a positively reviewed resort that is 45 minutes from the popular resort area, compared to a 25-minute distance. Therefore, the predicted asymmetry effect between negative and positive outcomes is observed in two separate experiments. The preliminary studies confirm the effectiveness of the valence manipulations and the equivalence of resort descriptions. In the main study, valence and distance are combined in a factorial design to test the hypotheses of interest. Because the effect of distance manifests between 25 and 45 minutes from the Hotel Zone in these scenarios, the 5-minute condition was excluded. Resort was not included as a factor since the two resorts are considered equivalent.

## Main Study

### Design

Experiment 2 used a 2 (base resort valence: negative, neutral)  $\times$  2 (target resort valence: neutral, positive)  $\times$  2 distance (25 minutes, 45 minutes) between-subjects factorial design. The Grand Paradise served as the base resort in the Hotel Zone, and the Mexican Fiesta was the target resort located at the specified distance. Each resort description was followed by 5 reviews corresponding to the designated valence condition. From 35 to 41 students were randomly assigned to each of the eight experimental conditions, yielding a total sample of 305.

### Results

**Manipulation checks.** A one-way ANOVA by target review valence (neutral-positive) revealed a large and significant

**Table 4.** Main Study Cell Statistics.

Distance	Target Resort							
	Neutral				Positive			
	25 Minutes		45 Minutes		25 Minutes		45 Minutes	
Base resort	n = 36		n = 41		n = 35		n = 37	
Negative	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Likelihood to choose	4.47	1.32	4.76	1.30	5.8	1.28	5.65	1.40
Appealing	4.58	1.46	5.02	1.42	5.51	1.46	5.68	0.97
Good choice	4.47	1.42	4.76	1.41	5.31	1.53	5.38	1.19
Expectations	4.75	1.70	5.37	1.39	5.69	1.55	5.57	1.19
Neutral	n = 41		n = 36		n = 36		n = 43	
Likelihood to choose	4.68	1.33	3.92	1.59	5.47	1.38	5.07	1.55
Appealing	4.73	1.25	4.08	1.61	5.56	1.58	5.28	1.62
Good choice	4.68	1.39	4.11	1.67	5.31	1.65	5.00	1.57
Expectations	5.02	1.31	4.28	1.43	5.64	1.62	5.53	1.50

**Table 5.** Effect of Valence on Evaluations of Target Resort (Main Study).

Variable	Target Valence		F <sub>1,297</sub>	Eta <sup>2</sup>
	Neutral	Positive		
	n = 154	n = 151		
Likelihood to choose	4.47	5.48	41.92***	.124
Appealing	4.62	5.50	29.81***	.091
Good choice	4.52	5.24	19.04***	.060
Enjoyable experience	4.88	5.60	19.98***	.063

\*\*\*p < .001.

effect on favorability ratings ( $F_{1,301} = 101.77, p < .001, \eta^2 = .253$ ). Mean favorability is 4.45 for neutral and 5.91 for positive reviews. The effect of base valence on favorability ratings of the base resort is large and significant,  $F_{1,301} = 159.19, p < .001, \eta^2 = .346$ . Mean favorability is 2.41 for negative and 4.60 for neutral base reviews. A one-way ANOVA by distance revealed a significant effect of distance for the target resort ( $F = 110.50, p < .001, \eta^2 = .269$ ), with means of 6.48 and 9.03 on the distance scale for the 25- and 45-minute conditions. The effect of distance for the base resort is not significant,  $F = 0.31, p = .58$ . Therefore, the manipulations were effective.

**Resort ratings.** A  $2 \times 2 \times 2$  ANOVA was conducted on ratings of likelihood to choose the target resort and the three evaluations. Table 4 displays the individual cell means by experimental condition. The findings revealed significant effects of target resort valence on all four measures, which are displayed in Table 5. Participants report a higher likelihood to choose the target resort with positive reviews and evaluate it more favorably than a target resort with neutral reviews, and the effects range from medium to large.

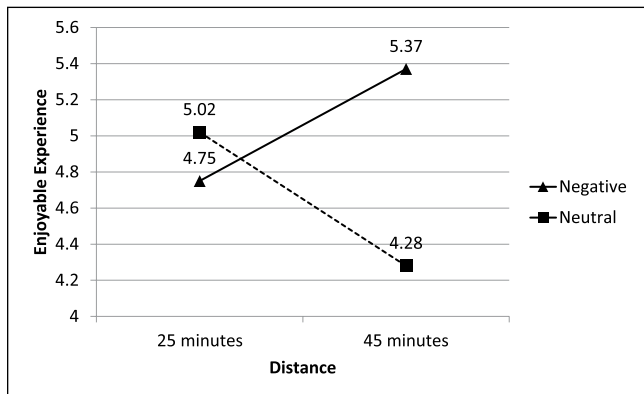
There was a significant base valence  $\times$  distance interaction on likelihood to choose ( $F_{1,297} = 4.10, p = .044, \eta^2 = .014$ ) and

appealing ( $F = 5.36, p = .021, \eta^2 = .018$ ). The base  $\times$  distance interaction for good choice was marginally significant ( $F = 3.23, p = .073, \eta^2 = .011$ ). To determine the source of the interaction, the simple effect of distance at each level of base valence was analyzed. The results are displayed in Table 6. When base reviews are negative, there are no differences between the 25- and 45-minute distances on ratings of the target resort. When base reviews are neutral, participants are less likely to choose the resort that is 45 minutes ( $M = 4.54$ ) versus 25 minutes ( $M = 5.05$ ) from the Hotel Zone. The same pattern is observed in the mean differences for evaluation ratings of appealing and good choice, although the simple effect of distance is not significant.

A three-way interaction was obtained on expectations that the experience would be enjoyable ( $F_{1,297} = 4.18, p = .042, \eta^2 = .014$ ). This interaction was broken down into the simple interaction effect of base  $\times$  distance at each level of target resort valence. When target reviews were positive, there was no B  $\times$  D interaction ( $F_{1,147} = .001, p = .977$ ). When the target reviews were neutral, the B  $\times$  D interaction was significant ( $F_{1,150} = 8.38, p = .004, \eta^2 = .053$ ). The source of the interaction was analyzed with the simple effect of distance at each level of base resort valence when target reviews were neutral. The results reveal the same pattern as the two-way interactions obtained for likelihood and the evaluation ratings. When the base reviews are negative, distance does not significantly influence expectations of an enjoyable experience ( $F_{1,75} = 3.06, p = .08$ ). However, when base reviews are neutral, there is an effect for distance ( $F_{1,75} = 5.72, p = .019, \eta^2 = .071$ ). As shown in Figure 3, participants expect the experience to be less enjoyable when they are 45 minutes ( $M = 4.28$ ) versus 25 minutes ( $M = 5.02$ ) from the Hotel Zone. Thus, we see that the effect of distance manifests most prominently when reviews are neutral for both resorts. Together, the interactions on resort ratings demonstrate that distance is a factor when seeking a positive experience but not avoiding a negative experience,

**Table 6.** Simple Effect of Distance on Evaluations of Target Resort (Main Study).

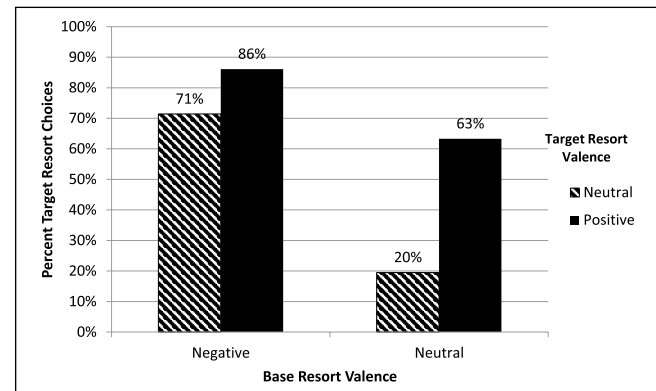
Distance	Base Valence					
	Negative		$F_{1,147}$	Neutral		$F_{1,154}$
	25 minutes	45 minutes		25 minutes	45 minutes	
	n = 71	n = 78		n = 77	n = 79	
Likelihood to select	5.13	5.18	0.05	5.05	4.54	4.24*
Appealing	5.04	5.33	1.62	5.12	4.73	2.25
Good choice	4.89	5.05	0.49	4.97	4.60	2.17
Enjoyable experience	5.21	5.46	1.05	5.31	4.96	2.01

**Figure 3.** Simple effect of distance on expectations for neutral target resort.

supporting hypotheses 1 and 2. When both resorts are neutral, distance provides the primary diagnostic cue to influence expectations, supporting hypothesis 3.

**Resort choice.** A logistic regression was conducted to evaluate the effects of the manipulations on binary resort choice. Logistic regression is a proper analysis for predicting the likelihood that an event will occur (Hosmer and Lemeshow 1989; Menard 1995). The target resort was coded as 1 and the base resort was coded as 0. The independent variables and their interactions were entered as predictors, where neutral = 0 and negative/positive = 1 for the base/target reviews respectively, and 0 = 25 and 1 = 45 for distance. The Nagelkerke R-square value indicates that the model accounts for 33.2% of the variance in resort choice. The model correctly classifies 75.1% of the cases, thereby exceeding the criterion that the classification rate should be 25% better than chance (Hair et al. 2010).

There is a significant effect for base resort valence ( $B = 2.24$ ,  $\text{Exp}(B) = 9.38$ ,  $\text{Wald} = 17.50$ ,  $p < .001$ ), target resort valence ( $B = 2.37$ ,  $\text{Exp}(B) = 10.73$ ,  $\text{Wald} = 19.16$ ,  $p < .001$ ) and a base  $\times$  target interaction ( $B = -1.81$ ,  $\text{Exp}(B) = 0.164$ ,  $\text{Wald} = 5.41$ ,  $p = .02$ ). An odds ratio ( $\text{Exp}(B)$ ) greater than 1 indicates that the odds of selecting the target resort increase at higher values of the independent variable, and an odds

**Figure 4.** Target resort choices as a function of review valence.

ratio less than 1 indicates that the odds decrease as a function of the independent variable. For base valence, the odds of selecting the target resort increase when base reviews are negative (79%) versus neutral (41%). For target valence, the odds increase when the target reviews are positive (75%) versus neutral (45%).

The simple effect of the base  $\times$  target interaction was analyzed by conducting a logistic regression on target resort choice at each level of base valence with target valence as the independent variable. The findings are shown in Figure 4. When base reviews are negative, the Nagelkerke  $R^2$  is .05 and 78.5% of cases are correctly classified. The effect of target valence is significant ( $B = .908$ ,  $\text{Exp}(B) = 2.48$ ,  $\text{Wald} = 4.59$ ,  $p = .032$ ), with a larger percentage of choices for the positive (86%) versus neutral (71%) resort. When base reviews are neutral, the model accounts for substantially more variance (Nagelkerke  $R^2 = .25$ ) and correctly classifies 71.8% of cases. The effect of target valence is much stronger ( $B = 1.96$ ,  $\text{Exp}(B) = 7.13$ ,  $\text{Wald} = 28.09$ ,  $p < .001$ ), with a large difference in the odds of choosing the positive (63%) versus neutral (20%) resort. The findings clearly illustrate the risk-reward dichotomy, as the valence of the target resort is less important when avoiding risk versus seeking reward.

**Willingness to pay.** Participants rated how much they were willing to pay per night for each resort on a scale from \$100

**Table 7.** Willingness to Pay as a Function of Review Valence (Main Study).

WTP For	Base Valence		F <sub>1,297</sub>	Eta <sup>2</sup>	Mann-Whitney U
	Negative	Neutral			
<b>Base Resort</b>					
Mean	3.62	4.69	11.57***	.037	.000
Median	\$150	\$175			
<b>Target Resort</b>					
Mean	5.20	4.25	9.65**	.031	.003
Median	\$200	\$175			
WTP For	Target Valence		F <sub>1,297</sub>	Eta <sup>2</sup>	Mann-Whitney U
	Neutral	Positive			
<b>Base Resort</b>					
Mean	4.39	3.92	2.17	n.a.	n.s.
Median	\$175	\$150			
<b>Target Resort</b>					
Mean	4.38	5.07	5.19*	.023	.025
Median	\$175	\$200			

Note: Means are on a scale from 1 (\$100) to 10 (more than \$300) in \$25 increments.  
 \*p < .05, \*\*p < .01, \*\*\*p < .001.

to \$550 in \$25 increments. Frequency analysis revealed that more than 90% of the responses were \$300 or lower, resulting in significant positive skewness; that is, the distribution was shifted to the left (Hair et al. 2010). In this situation, nonparametric statistics may be appropriate (Gibbons and Chakraborti 2011). However, nonparametric equivalents of ANOVA do not test for interactions in the traditional sense. Therefore, values greater than 300 were combined into a single scale point, forming a 10-point interval scale that met normality assumptions.

A three-way ANOVA was conducted on the WTP scale for the base and target resort. The analysis revealed significant effects of base valence on WTP for the target resort and the base resort, the results of which are displayed in Table 7. Participants are willing to pay more for the base resort (M = 4.69 vs. 3.62) and less for the target resort (M = 4.25 vs. 5.20) when the base reviews are negative versus when they are neutral. There is a significant effect of target valence on WTP for the target resort, such that WTP is higher when reviews are positive (M = 5.07) versus neutral (M = 4.38). The effect of target valence is not significant for the base resort. There are no effects for distance and no interactions.

In the absence of interactions, nonparametric tests were conducted to validate the effects of valence using the full (nontransformed) distribution of responses. The results of the Mann-Whitney U test and median WTP values are displayed in Table 7. Confirming the ANOVA results, the null hypothesis of equivalent distributions across the two levels of base valence is rejected for the base and target resort. The effect of target valence on WTP for the target but not the base resort is confirmed. The findings indicate that people will

pay more to avoid a negative experience or enjoy a positive experience even if it is farther away. However, their WTP for a resort in a prime location is not affected by the reviews of a more distant alternative.

### Discussion

How much effort will customers exert to avoid a negative travel experience? The findings indicate that consumers will stay a considerable distance away from the action if the closer option has negative reviews. How much effort will customers exert to ensure a positive travel experience? The findings indicate that there is a limit to the distance consumers will travel for a positively reviewed option. When does distance matter the most? When both options have neutral reviews, location becomes the deciding factor. The findings suggest that reviews outweigh location when it comes to lodging choice.

A summary of hypothesis support is provided in Table 8. Participants report higher likelihood to choose a target resort and evaluate it more favorably than a negative resort regardless of distance, supporting hypotheses 1a and 2a. However, likelihood ratings and evaluations decline as a function of distance when the base resort has neutral reviews, supporting hypotheses 1b and 2b. The findings support the asymmetry effect (Taylor 1991) and demonstrate that risk outweighs reward in travel purchase decisions (Kahneman and Tversky 1979). Travelers will go any distance to avoid a negative experience but not to seek a positive experience.

When both resorts are neutral, distance is the only differentiating cue, and participants expect the experience at the

**Table 8.** Hypothesis Support.

Hypothesis	Dependent Variable	Predicted Effect	Support
1a	Likelihood ratings	No effect for distance when base reviews are negative	Yes
1b	Likelihood ratings	Lower for 45 vs. 25 minutes when base reviews are neutral	Yes
2a	Evaluations	No effect for distance when base reviews are negative	Yes
2b	Evaluations	Lower for 45 vs. 25 minutes when base reviews are neutral	Yes (n.s.)
3	Evaluations	Lower for 45 vs. 25 minutes when both resorts have neutral reviews	Yes (expectations)
4	Choice	Base > target when both resorts have neutral reviews	Yes
5	Willingness to pay	Neutral > negative	Yes
6	Willingness to pay	Positive > neutral	Yes

target resort to be less enjoyable when it is farther away, supporting hypothesis 3. The role of location is most apparent in actual product choice, where only 20% of participants select the farther resort when both resorts are neutral, supporting hypothesis 4. Participants are willing to pay more for the target resort and less for the base resort when the base resort has negative reviews, supporting hypothesis 5. A similar finding is obtained for WTP for the target resort when reviews are positive, supporting hypothesis 6. However, WTP for the base resort is not affected. This result illustrates the asymmetry effect, and suggests that the perceived value of a neutral product is not affected by a positive alternative farther away, but is enhanced by a closer option that is negative. The findings extend previous research in which reviews influenced willingness to pay for lodging when an external price anchor was provided (Book, Tanford, and Chen 2016; Nieto-García, Muñoz-Gallego, and González-Benito 2017). The findings suggest that reviews can affect individuals' price expectations before they encounter pricing for specific travel dates.

Previous research indicates that customer reviews outweigh other factors, including price (Noone and McGuire 2014; Book, Tanford, and Chen 2016; Book et al. 2018). This research extends this phenomenon to location. Price and location are two of the most important determinants of hotel choice (Chan and Wong 2006; Lockyer 2005), yet they reflect unique dimensions (Tanford, Raab and Kim 2012). Location is considered a core attribute that affects perceptions before, during, and after the travel experience (Narangajavana Kaosiri et al. 2017), whereas price is most relevant prior to purchase. The findings suggest that existing classifications of hotel selection factors should be updated to reflect today's online purchasing environment. Certainly, online reviews must be included among those factors.

### Theoretical Implications

This research links prospect theory (Kahneman and Tversky 1979) to asymmetry effects (Taylor 1991) through the element of effort. Negative reviews outweigh distance whereas positive reviews do not, indicating that the classic risk avoidance principle operates in online travel decisions. The principles of prospect theory were established using gambles and

probabilities, where, for example, the fear of losing \$100 is stronger than the hope of gaining \$150, even when the two outcomes are equally likely (Kahneman 2011). The research extends prospect theory by suggesting that distance and valence operate in a manner similar to financial gains and losses. That is, people will exert more effort to avoid a negative outcome versus seek a positive outcome, just as they place more value on financial losses versus gains.

The findings provide insight into the use of heuristics in travel purchase decisions. Prior research considered reviews in terms of social influence, which results from the opinions of others (Book, Tanford, and Chen 2016; Book et al. 2018; Tanford and Montgomery 2015). This research evaluates the impact of competing heuristic cues on individual judgment processes. The study provides an empirical test of Shah and Oppenheimer's (2008) framework of heuristics as effort reduction. Two effort reduction tasks are implicated: examining fewer cues (valence but not distance) and simplifying the weighting principle (negative > positive). It is only in the absence of review valence (neutral-neutral) that the influence of physical effort fully manifests.

### Practical Implications

Locational superiority may not play a dominant role when a hotel has a negative reputation. People place more value on the quality of experience compared to a convenient location. As a result, people will travel farther to stay a property with a better reputation to ensure a good quality of stay. If hotels with locational superiority fail to meet service or quality expectations, they risk losing business. Conversely, locational inferiority may be overcome by maintaining good reviews online. Operators should be especially attentive to their target populations during peak travel periods, such as spring break. Considering that many users of online travel sites are millennials, spring break season is a good chance for resorts to enhance their status of reviews. Managers need to provide extra care for the customers in this generation and encourage them to leave positive reviews. It is not sufficient to respond to negative reviews "after the fact," as providing a response can have a negative impact on hotel performance (Xie, Zhang, and Zhang 2014; Xie, So, and Wang 2017).

Travel inevitably involves distance, extending the implications to other travel settings such as conventions and business travel. For large conventions, there are typically lodging options at other properties besides the host hotel. The host property cannot guarantee to fill its room block if it has received negative reviews from previous guests. Attendees may choose the inconvenience of staying at an alternative property over the risk of a bad experience. Meeting planners might choose a host hotel in a less desirable location to ensure that attendees have a good experience and will attend in the future. Likewise, frequent business travelers tend to be savvy about their accommodations, and could choose a farther option over one in proximity to their business destination. Operators in less desirable locations that have consistently positive reviews can capitalize on this opportunity by targeting business and convention travelers in their advertising and marketing campaigns.

### *Limitations and Future Research*

The research was conducted using college students making decisions for spring break travel, and may not generalize to other settings. Students are the target population, and the methodology allowed for maximum control of the independent variables, which is essential for internal validity (Campbell and Stanley 1973). Homogeneous samples are preferred for experimental research (Calder, Phillips, and Tybout 1981) and student samples tend to be more homogeneous than nonstudents (Peterson 2001). However, the composition of the sample, which contained a large proportion of Asian and female participants, may not represent the typical spring break traveler. Therefore, future research is desirable to establish the external validity of the findings. Given the broad applicability to travel, it is important to examine the effects of reviews and location for other lodging segments and populations.

Future research should determine if the same effects occurs for restaurants. Dining is a central element of the tourism experience, and the number of reviews posted by tourists is rapidly increasing (Vu et al. 2017). Dining involves less investment in time and money than travel, so the risk of a bad decision is reduced. On the other hand, level of involvement is lower, which could lead to peripheral (system 1) processing and increase reliance on heuristics (J. Lee, Park, and Han 2008). Future research could examine individual differences in risk avoidance from negative reviews. Tourists differ in their attitudes toward risk and these attitudes influence their choice of travel destination (Karl 2018). These differences could extend to the effect of online reviews.

Participants made hypothetical travel decisions using scenarios designed to resemble review websites. Much of our knowledge about the effects of reviews uses this methodology, as it allows for control of experimental variables. Although conducting experiments is an appropriate method to identify the cause–effect relationship between heuristic cues and decision outcomes, it does not outline the decision

process. It has been recognized that measuring heuristic versus systematic processing is challenging (Trumbo 2002). Self-report measures are not acceptable, because they force people to reflect on decision processes that are assumed to be automatic. Physiological responses can measure such factors as attention to stimuli, but these were not feasible in the classroom setting. Our study follows the classic paradigm, which infers the use of heuristics as a function of the manipulations (Kahneman 2011; Tversky and Kahneman 1974).

Future research using correlational data could enrich our understanding of the decision process. Another way to investigate the influence of reviews is using secondary data from review websites (Phillips et al. 2017; Xie, Zhang, and Zhang 2014; Ye, Law, and Gu 2009). It would be highly informative to partner with an OTA to evaluate the influence of location and review valence in a model that predicts hotel bookings and revenue. Following the lead of Agag and El-Masry (2017) and Narangajavana Kaosiri et al. (2017), survey research could be used to evaluate the process whereby reviews, location, and other website features influence consumer perceptions and travel purchase intentions. In their investigations of reviews versus price, Book, Tanford, and Chen (2016) included extreme price differences after finding that negative reviews outweighed price at moderate discounts (Book et al. 2018). Future research should include more extreme distances in other settings to determine if there is a limit to the effort people will exert to avoid a negative experience.

Much has been learned about the influence of online reviews in recent years, but theoretical development is still needed (K. Zhang et al. 2014). Whereas other researchers have suggested various theories to explain the effects of reviews, this research uses theory as a starting point for developing hypotheses within the review context. The goal is not simply to apply theories but to advance them by integrating principles of heuristics, prospect theory and asymmetry in the online purchasing environment. At the same time, the research provides information that is critically important to the travel industry, as online reviews have transformed the way people think about travel. Future theory-driven research can advance knowledge about consumer decision making while providing valuable insight to travel practitioners.


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