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So distant, yet useful: The impact of distal stories on customers' service expectations

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ABSTRACT

Due to the uncertainty and unpredictability of service experiences, customers often read other customers' stories in online reviews before choosing a service provider. These stories include details about the storyteller, such as where she or he lives and when she or he experienced the service encounter. These details can make the reader feel near to or far from the service experience described in the story. In this study, we investigate how this near or far feeling — psychological distance — influences service expectations. Drawing from construal level theory (CLT), we propose that psychologically distant (vs. proximal) stories enhance customers' service expectations by promoting a high- (vs. low-) level construal of the information presented and find broad support for this expectation using Yelp.com review data and lab experiments. This research contributes to the services marketing literature by revealing how seemingly innocuous aspects of stories embedded in online reviews influence service expectations.

1. Introduction

Stories convey human experiences (Levine, 2017); thus, it is a common marketing practice to encourage customers to tell their stories about service experiences via online platforms such as Yelp.com ((Black & Kelley, 2009; Umashankar, Ward, & Dahl, 2017). Research suggests that most customer reviews tell a story rather than merely describe specific service features (Jurafsky, Chahuneau, Routledge, & Smith, 2014). Such stories are bound in time (e.g., experienced last night vs. three months ago) and space (e.g., in town vs. out of town). Consequently, consumers are likely to differ regarding how near or far they feel (i.e., how psychologically proximal or distant they feel) from the story being told. This study explores how the psychological distance engendered by customer stories in reviews (hereafter, customer stories) affects other customers' service expectations.

The notion of psychological distance is implicit in customer stories because such stories are not part of the reader's direct experience (Trope, Liberman, & Wakslak, 2007). When reading the stories of others, consumers travel mentally along psychological distances to experience the service depicted in the story (Wong & Wyer, 2016). This mental process is referred to as *construal*, while the abstractness level that characterizes the construal is termed *construal level* (Norman, Tjomsland, & Huegel, 2016). Construal level theory (CLT) postulates that greater psychological distance induces a high or abstract (as

opposed to low or concrete) construal level, which elicits a desirable effect (from marketers' perspective) on subsequent consumer behaviors (Trope & Liberman, 2000).

As Table 1 reveals, extant research to date on psychological distance in services has primarily examined how the fit between the psychological distance implied by the service consumption situation (e.g., purchasing tomorrow vs. three months later) and key service attributes (e.g., tangible/concrete vs. intangible/abstract features) impacts customer responses. This body of research has found that customer outcomes are enhanced when a construal fit exists between the psychological distance implied by the consumption situation and the attributes of the service experience (Ding & Keh, 2017; Holmqvist, Guest, & Grönroos, 2015; Jin & He, 2013; Pizzi, Marzocchi, Orsingher, & Zammit, 2015). On the other hand, a related but smaller body of research has found negative impacts of psychological distance on consumer outcomes. For example, an increase in the psychological distance between a customer and a retailer negatively affects customer outcomes (Darke, Brady, Benedicktus, & Wilson, 2016; Lii, Pant, & Lee, 2012). Similarly, it has been found that temporal distance, which refers to the duration between the dining time and the review writing time, has a direct negative effect on reviewers' restaurant evaluations (Li, Zhang, Meng, & Zhang, 2019). By contrast, it has also been found that high construal positively influences evaluations of the past event when reviewers write about their own experiences (Huang, Burtch, Hong, & Polman, 2016).

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Table 1
Summary of Key Studies on The Effects of Psychological Distance on Services Evaluation.

Study	Theory	Object that engenders Psychological distance	IV	DV	Moderator	Mediator	Main Findings
Darke et al. (2016)	CLT	Direct experience: physical presence (vs. absence) of retailer	Perceived psychological distance	Purchase intention	N/A	Trust	Reducing psychological distance using simple website tactics (e.g., images of office building or retail store owner's name and appearance) overcoming distrust and encouraging first-time purchase.
Pizzi et al. (2015)	CLT	Direct experience: elapsed time from the service experience	Elapsed time between consumption experience and its evaluation	Satisfaction judgement	N/A	N/A	Satisfaction judgement shift over time as a result of the different psychological mechanisms such that individuals will assign greater weight to more abstract than to more concrete attributes when evaluating distant (vs. proximal) past service event.
Ding and Keh (2017)	CLT	Consumption situation: voucher expiration date, key attribute tangibility.	Consumer construal level	Service evaluation, willingness to pay	Service type (experience vs. credence)	Imagery vividness	Consumers with high (vs. low) construal level rely more on intangible (vs. tangible) attributes in service evaluation, which is mediated by imagery vividness
Jin and He (2013)	CLT	Consumption situation: purchase time	Scope of guarantee (full vs. specific)	Evaluations of service	Purchase decision timeframe	Guarantee usefulness	Full satisfaction guarantees more strongly influence decisions in the distant future, while attribute-specific guarantees more strongly influence decisions in the near future.
Jin et al. (2014)	CLT	Review posting date	Review posting date	Perceived influence of review	Purchase decision timeframe	Consumer engagement into a review	Recent (vs. outdated) reviews are represented at a relatively lower (vs. higher) construal level which matches the timeframe of the near (vs. distant)-future consumption decision. This construal fit, in turn, enhances consumer preferences through consumer engagement.
Miao and Mattila (2013)	CLT	Consumption situation: spatial proximity from the other customer	Behaviors of other customers	Service encounter satisfaction	Psychological distances from other customers	N/A	The effect of other customers' negative behaviors on the focal customer's service encounter satisfaction and symbolic emotional responses are more pronounced in the close (rather than distant) distance condition.
Study	Theory	Object that engenders psychological distance	IV	DV	Moderator	Mediator	Main Findings
Holmqvist et al. (2015)*	CLT; value creation	Consumption situation: future service interaction	Psychological distance	Service expectation, willingness to interaction	N/A	N/A	Greater psychological distance helps with understanding of complex context-specific features of the service interaction.
Huang et al. (2016)	CLT	Consumption experiences; restaurant location and the time when the restaurant is visited.	Geographical distance (i.e., distance between review writer and the restaurant being reviewed);	Review star rating (rated by reviewer).	Temporal distance (i.e., authoring review after lengthy delay)	Construal level	The effect of one psychological distance increases the effect of the other psychological distances on review positivity by amplifying consumers' high-level construal.
Van Laer et al. (2018)	Narrative Transportation	Linguistic Contents	Narrative Contents	Attitude toward a story	N/A	Narrative Transportation	Reviews with developed characters and events as well as more emotionally changing genres and dramatic event orders are more persuasive in terms of transporting customers to the story.
Li et al. (2019)	CLT	Consumption experience: dining time	Prior average review rating, number of prior review ratings.	Consumer review rating (i.e., restaurant evaluation based on their visit experiences)	Review temporal distance (i.e., time difference between dining time and restaurant evaluation)	N/A	Consumers' restaurant evaluation is influenced by prior average reviews and reviewing temporal distances negatively influences on consumers' restaurant evaluation.
Lii et al. (2012)	CLT	Consumption situation: service provider familiarity	Perceived service recovery effort	WOM and repurchase intention.	Psychological distance	Satisfaction, firm trust	Impact of firm's service recovery effort on satisfaction and trust in the firm will be greater when the degree of psychological distances (i.e., familiarity and similarity with the service provider) is low.
This study	CLT	Mental representation of another customers story	Psychological distance	Service experience expectation	Service Type; credence vs experience	High construal	Distal (vs. proximal) stories enhances service expectations through high construal.

Notes: N/A = not applicable;
 * Conceptual paper.

While these foundational studies have established that the psychological distance that customers feel from their *own* service experiences plays an important role in shaping their exchange outcomes, the extant literature has so far been silent on how the psychological distance that customers feel from *other customers'* experiences (as conveyed in customer stories) affects their service expectations (and, by extension, their service outcomes). This is an important knowledge gap that needs further exploration because the indirect experience gained through customer stories has been shown to significantly impact readers' choices of service providers (Kirmani, Hamilton, Thompson, & Lantzy, 2017), and psychological distance cues (i.e., time or place/when or where the service experience occurred) are pervasive in almost all (if not all) customer stories.

To begin to address this important knowledge gap, this study seeks to answer the following research question: What impact does the psychological distance conveyed by customer stories have on readers' service expectations? Building on CLT and the understanding that (1) service experiences in a review are bound in space and time (Jin, Hu, & He, 2014), (2) psychological distance permeates nearly all customer stories, and (3) high construal (as opposed to low construal) enables customers to transport themselves to the reviewer's service experience, we propose that psychologically distant stories (henceforth, *distal stories*) have a greater impact on consumers' service expectations (than proximal stories) by promoting a high-level construal of the information presented in the story. Simply put, we anticipate that customer stories about service experiences occurring a few months ago (vs. last night) or out of town (vs. in town) will promote high-level construal and, thus, have a significantly greater impact on readers' service expectations than proximal (or low-level construal) stories. We refer to this process as a *distal story effect mechanism* and examine this phenomenon across four studies using a chain-of-experiments approach (Lamberton & Diehl, 2013) in both field and lab settings.

The first two studies employ a moderation-of-process approach (Spencer, Zanna, & Fong, 2005) using data culled from Yelp.com (Study 1) and a controlled lab experiment (Study 2) to establish how the psychological distance induced by service type (i.e., credence vs. experience service) alters readers' responses to other customers' stories. Studies 3A and 3B measure a conceptual mediator (i.e., narrative transportation, which refers to the extent to which consumers are being carried away by the story; Van Laer, Visconti, & Wetzels, 2014) and, thus, establish the mediation mechanism that accounts for the effects of psychological distance on readers' responses to other customers' stories. To establish the robustness of our results, service expectations are operationalized in varying ways across the studies, including review usefulness (Study 1), rapport with frontline employees (Studies 2, 3A and 3B), and overall service provider evaluations (Studies 3A and 3B). Across all these studies, we find broad empirical support for our expectation that as a story's psychological distance increases, so too do readers' expectations about the quality of service that a firm provides.

This article makes several theoretical and practical contributions. First, we add to the extant literature on psychological distance in services by revealing that the psychological distance in a customer's story has a desirable effect on readers' (i.e., potential customers') service expectations. This finding is counterintuitive and at odds with prior research, which suggests that psychological distance reduces desirable customer outcomes (Darke et al., 2016). Second, we expand the types of objects from which consumers experience psychological distance. Whereas previous studies have examined psychological distance from consumers' own consumption situations (e.g., a ticket purchase for tomorrow vs. a year later), this study examines the psychological distances that consumers experience from other customers' consumption experiences. Third, we contribute to CLT and the narrative transportation literature through theory extension. To the best of our knowledge, this study is the first to integrate CLT and narrative transportation theories into explanations of story effects on consumers. Finally, our work offers managerially relevant insights on how to effectively convey

positive service experiences. Drawing on our findings, managers might increase story effects by soliciting customer stories after a prescribed delay period or by soliciting stories that are associated with high-level construal, such as sharing emotional experiences rather than focusing on conveying the concrete benefits derived from the service encounter.

2. CLT and the distal story effect mechanism

CLT lays the theoretical groundwork for the proposed distal story effect mechanism, which explains how consumers' service encounter expectations are created on the basis of other customers' stories. CLT postulates that psychological distance (i.e., a subjective experience that something is close to or far away from the self, here, and now) yields construal effects such that psychologically distant (proximal) events are represented at a high (low) construal level (Förster, Friedman, & Liberman, 2004). According to CLT, consumers should experience psychological distance when they attempt to understand the perspectives or past/future events of others because they generate feelings that are far from the self, or the here and now (Trope & Liberman, 2000). As such, CLT informs our study that all customer stories are psychologically distant and, thus, construed at a relatively high level in some manner (Trope et al., 2007). That is, high construal should be an underlying process mechanism of the mental representation of story events. A theoretical extension of this high construal process mechanism is that stories that engender greater psychological distance (i.e., distal stories) will induce high construal to a greater extent, and, thus, will facilitate the mental representation of the story and have a greater impact on prospective consumers. Building on this line of reasoning, we propose a distal story effect mechanism, which posits that distal stories will have a greater impact on consumers (than proximal stories) by inducing a high (rather than low) construal level.

3. The usefulness of stories about service experiences

Researchers have used the terms "narratives," "stories," and "word-of-mouth" interchangeably as though they were synonyms (Volkman & Parrott, 2012); however, they have consistently defined a story as a storyteller's account of incidents or events resulting in a transition from an initial state to a later state (Bennett & Royle, 2004; Van Laer et al., 2014). Corresponding to this definition, Van Laer et al. (2014) suggest that story elements include characters (i.e., a storyteller), a plot (i.e., a sequence of events), setting (i.e., the situation to which the storyteller connects), climax (i.e., modulation of dramatic intensity), and outcomes (i.e., resolutions or frustrations). Similarly, Thompson (1997) postulates descriptions of place, sequence of events, and characters' feelings and thoughts about the events as key story components. The story elements identified in these studies suggest that customer reviews convey service experiences in the form of stories. Indeed, story elements are particularly effective in conveying service experiences because the main character (i.e., reviewer) and sequence of events (e.g., service script) are critical to portraying service experiences (Matilla, 2000).

Recent studies support the idea that stories are effective at conveying service experiences, finding that narrativity (i.e., the extent to which a review tells a story) in customer reviews significantly impacts the story's perceived usefulness (Van Laer, Edson Escalas, Ludwig, & Van den Hende, 2018). When consumers are able to accurately understand service experiences based on these stories, they will view them as useful (i.e., perceive reviews as being helpful in learning or making decisions; Weiss, Lurie, & MacInnis, 2008) when evaluating service providers (Chen & Lurie, 2013). Consistent with this finding, we predict that readers perceive customer reviews to be more useful when they use stories to convey the writer's service experience. From a service marketing perspective, review usefulness is an important outcome because useful reviews serve as a basis for creating service provider expectations (Kirmani et al., 2017) and determining the relative persuasiveness of the reviews (Van Laer et al., 2018). Consistent with the preceding

exposition, we assert that stories are particularly effective at conveying past customers' experiences; thus, the usefulness of a review rating will increase as its content approximates that of a typical story. Thus, we propose:

H1. As the number of story elements in a customer review increases, the usefulness of the customer review increases.

4. Construal level and service types

In this research, we propose that distal stories will have a greater impact on consumers' service expectations (relative to proximal stories) by promoting a high-level (i.e., abstract) construal of the story information. Drawing from CLT, we also theorize that the type of service reviewed in a story (i.e., experience vs. credence service; see below) provides a boundary condition that shapes the proposed effect. Specifically, using a moderation-of-process approach, we anticipate that the effect of distal stories on customers' service expectations will be mitigated or blocked (Spencer et al., 2005) when outcomes associated with a service experience are concrete or certain.

A well-established service industry typology categorizes services as either *experience* or *credence services* based on uncertainty regarding service outcomes (Keh & Pang, 2010). Consumers evaluate experience services (e.g., haircuts, restaurant visits, and hotel stays) with confidence because they can gain tangible and concrete service outcomes after consuming these experiences (Mattila, 2000). Thus, experience services are mentally represented in more concrete terms or at low construal. However, consumers are not confident in their evaluations of credence services (e.g., doctors or realtors), even after some trial has occurred (Ostrom & Iacobucci, 1995), as credence services are mentally represented in more abstract terms via high construal due to the intrinsic uncertainty and risk perceptions associated with them (Keh & Pang, 2010). Building on this line of reasoning, we expect that consumers will mentally represent credence services at a high construal level, which will then enhance the extent to which stories are reconstructed. Combined with the high construal engendered by the psychological distance of these stories (i.e., distal stories), high construal-engendered credence services will have a greater impact on consumers' service expectations. However, in the case of stories focusing on experience services, distal stories will operate on a lower construal level because their outcomes are more concrete or tangible. Thus, we propose:

H2a. Distal (vs. proximal) stories have a greater impact on the rated usefulness of customer reviews for credence services than for experience services.

5. Construal level and affect-based service expectations

As another important outcome of the distal story effect mechanism, we consider affect- based service expectations. When consumers construe the event in a story, they take the protagonist's (i.e., storyteller's) perspective (Green & Brock, 2000). Research shows that placing oneself in a story for mental simulation generates affective responses. For example, consumers show more affective responses to ads that stimulate mental simulation of a product usage situation (Bone & Ellen, 1992; Taylor & Schneider, 1989). In our study context, we operationalize affect-based service expectations in response to a story as the expected rapport established with frontline employees (FLEs). Service expectations are defined as "the predictions made by consumers about what is likely to happen during transactions" (Parasuraman, Zeithaml, & Berry, 1988). Thus, rapport established with FLEs, which refers to the enjoyable interactions between a customer and FLEs (Gremler & Gwinner, 2008), could be a critical determinant of expected service experiences (Gremler & Gwinner, 2000; Winsted, 1997). Moreover, rapport is formed based on affect from interactions and one of the major

consequences of service interactions (Hennig-Thurau, Groth, Paul, & Gremler, 2006). Thus, we propose expected customer-FLE rapport as an important consequence of distal story effects. Formally:

H2b. Distal (vs. proximal) stories have a greater impact on expected customer-FLE rapport for credence services than for experience services.

6. High construal and narrative transportation

Our proposed high construal explanation for distal story effects is consistent with narrative transportation accounts regarding the effects of stories. Green and Brock (2000) define narrative transportation as the mental state of being carried away by a story, arguing that it is a key process mechanism of story effects. Supporting their theory, subsequent research has documented empirical findings showing that a story achieves persuasion through narrative transportation (Van Laer et al., 2014). A key theoretical account of story effects based on narrative transportation is that persuasion is achieved through transportation when individuals are disconnected from their previous experiences and the distinction between the real and story worlds becomes blurred (Green & Brock, 2000). This suggests that transportation occurs when consumers distance the self from the here and now and then place the self into the there and then where a customer story is situated. As such, narrative transportation occurs with psychological distance, making it a likely proxy for high construal. If our proposed high construal mechanism for story effects hold, we can predict that distal (vs. proximal) stories will enhance narrative transportation, ultimately enhancing service experience expectations.

We operationalize the service expectations resulting from narrative transportation as an overall service provider evaluation, in addition to the expected rapport with FLEs. People have substantially more positive evaluations of an event when they take the distal (vs. proximal) perspective (Pizzi et al., 2015). For example, expectations of personal events or recollections of past events are more positive than actual experience itself (Mitchell, Thompson, Peterson, & Cronk, 1997). Such a "rosy view" from distal perspectives will generate more positive evaluations of service providers, since the anticipated positive experiences gained by transportation tend to be transferred to the evaluation of the target object (Malaviya & Sternthal, 2008; Mitchell et al., 1997). Building on this line of reasoning, we propose:

H3. A distal (vs. proximal) story enhances narrative transportation, which results in increased (a) rapport with FLEs and (b) overall service provider evaluation.

We test our predictions (see Fig. 1 for our conceptual framework) regarding distal story effects by manipulating temporal (Study 2 and 3A) and spatial (Study 1 and 3B) distance. We focus on these two dimensions for two reasons: (1) they are particularly relevant to service experiences, which are defined along time and space dimensions (Keh & Pang, 2010); and (2) they are psychological distance cues commonly found in online platforms (e.g., posting dates and descriptions of the timing and place of service experiences). Study 1 examines customer reviews culled from Yelp.com to test H1 and H2a. The subsequent studies test the process mechanism of high construal for distal story effects using a chain-of-experiments approach (Lamberton & Diehl, 2013). We test the mediation mechanism of high construal using a moderation-of-process approach (Studies 1 and 2) and a measurement-of-mediation approach (Studies 3A and 3B).

7. Study 1: Customer stories and high construal mediation through service type

The purpose of Study 1 is to test both H1 (the impact of customer review story elements on the perceived usefulness of a review) and H2a (moderating role of service type to establish the distal story effect
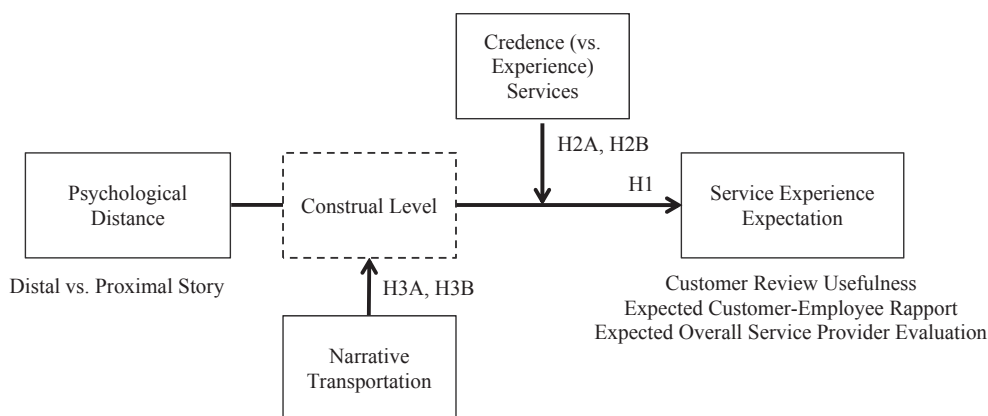
Fig. 1. Conceptual framework. *Note:* Service experience expectation was measured as customer review usefulness (Study 1), expected customer-employee rapport (Study 2, 3A, 3B), and expected overall service provider evaluation (Study 3A, 3B).

mechanism). Support for H1 will confirm our fundamental assumption that customer reviews include story elements (i.e., are indeed stories), which is a critical premise of our research on which subsequent studies are built upon. Support for H2a will demonstrate the high construal mediation mechanism of distal story effects.

7.1. Customer stories in a customer review

7.1.1. Design and procedure

To examine whether the extent to which a customer review tells a story increases perceived usefulness of the review, we randomly sampled 744 customer reviews from Yelp.com culled from 28 service providers located in three cities across the U.S. Among them, 80 reviews that complain of service failures were excluded, resulting in 664 reviews for analysis. The service providers were from five different industries: real estate agency (119 reviews), hair salon (96 reviews), hotel (136 reviews), dental office (152 reviews), and auto mechanics (161 reviews).

We focused on 664 positive (as opposed to negative or service failure) reviews to test our hypothesis for several reasons[1]. First, we wanted to avoid introducing valence as a third factor that might have obscured the proposed theoretical effects. Research grounded in CLT has found that valence is associated with construal level (Trope & Liberman, 2000), such that negativity (positivity) activates a more concrete (abstract) mindset (White, MacDonnell, & Dahl, 2011). Second, we speculated that negativity effects could override story effects because negative reviews are more valued than positive reviews (Chen & Lurie, 2013). Hence, we determined that our focus on positive reviews only was most appropriate for isolating the psychological mechanisms at play. Third, we focused on positive rather than negative reviews because positive reviews are more prevalent than negative ones (Fowler & Avila, 2009). Researchers have found that most customer reviews are positive, such that 90% of Yelp reviews are positive, and only 10% are negative (Chen & Lurie, 2013).

To test H1, we first measured our independent variable, the number

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[1] We tested our hypotheses using 80 negative reviews that we dropped. As we speculated, the results suggest a probable impact of negativity on the construal level. The interaction pattern between psychological distance and service type was flipped ($\beta = -1.75$, $p < .001$) in the negative reviews, such that, distal story increases perceived usefulness of an experiential service story, but it slightly reduces the usefulness of a credence service story. This flipped interaction suggests that valence influences construal level such that negativity activates low construal (White, MacDonnel, and Dahl 2011). We need to exercise caution in the interpretation of this test results due to the lack of power, however, we should note that negativity comes into play as a third factor that influences story effect.

of story elements in a customer review, by calculating the story element score. Concerning the story elements, we coded each of the following based on the definition of the story set forth by Van Laer et al. (2014): a character (i.e., reviewer), plot (i.e., a sequence of events), setting (i.e., the situation that the reviewer connects to), climax (i.e., modulation of dramatic intensity of the plot), and outcomes (i.e., the end states of the plot derived from the character's service experiences, such as satisfaction, recommendations, or revisit intention). See Table 2 for the definition and operationalization of each element. After coding each element from each review text (1 = present, 0 = not present), we calculated the story element score by summing the number of story elements identified in each customer review. We then tested the relationships between the story element scores and usefulness counts. Consumers who read a story rate a review as "useful" if the review content provided a basis for a choice of service provider (Kirmani et al., 2017). To summarize, "useful" counts imply the extent to which the story conveys experiences; thus, H1 is supported if a regression of usefulness counts on the story element scores shows a significantly positive relationship.

Since standard OLS regression would likely produce distorted results due to the violation of heteroscedasticity and normal distribution assumptions common in count data (Coxe, West, & Aiken, 2009), we regressed the useful counts on the story element scores using a Poisson regression. To isolate the effects of narrativity, we coded and controlled supplementary information that could bias the story effects: review length and posting age (Pan & Zhang, 2011), use of photo (Weathers, Sharma, & Wood, 2007), differences in the service provider (Umashankar et al., 2017), and reviewer gender, which could influence perceived similarity with a reviewer (Van den Hende, Dahl, Schoormans, & Snelders, 2012). Thus, our model tested as follows:

USEFULNESS (count) = f (STORY ELEMENTS SCORE, LENGTH, POSTING AGE,
PHOTO, SERVICE PROVIDER, REVIEWER GENDER)

Where USEFULNESS (count) = total number of usefulness ratings; STORY ELEMENTS SCORE = number of story elements; LENGTH = word count in each review;

POSTING AGE = the date the review was posted; PHOTO = 1 if the review includes a photo and 0 otherwise; SERVICE PROVIDER = service providing company coded as a categorical variable from 1 to 27; REVIEWER GENDER = 1 if female and 0 otherwise.

7.1.2. Results and discussion

We first examined the descriptive statistics of story elements. The mean story element scores of 664 customer reviews that we randomly selected is 2.24 (SD = 1.29). More specifically, 88.7% of reviews scored

Table 2
Story elements in customer reviews: definitions and operationalizations (Study 1).

Element	Definition	Studies	Operationalization
Character	Storyteller, the characters playing a role in the plot	Van Laer et al. (2014)	Presence of storyteller or description of who experienced the event (0/1).
Plot	The extent to which a text has a temporal sequence of event or chronological flow	Thompson (1997); Van Laer et al. (2018)	Presence of temporal sequence or order of the events (0/1)
Setting	Context where the service experience is situated or situation of the events to which character is connected.	Black and Kelley (2009); Denning (2004); Van Laer et al. (2018)	Presence of description of the environment (i.e., place or occasion) where and when the character experienced the event (0/1)
Climax	Modulation of the dramatic intensity along the plot	Van Laer et al. (2014), Van Laer et al. (2018)	Presence of unexpected or surprising events resulting in the thoughts or feelings that differ from what obtained at the beginning of a story (0/1)
Outcomes	The end state of the plot derived from the character's service experiences	Green and Brock (2000); Van Laer et al. (2014)	Presence of overall service evaluations such as satisfaction, recommendations, or revisit intention (0/1)

2 or above, 70.2% reviews scored 3 or above, and 47.3% of reviews scored 4 or above. 24.2% of the reviews scored 5 and only 11.3% of the review scored 0, which suggests that majority of customer reviews have some story elements.

To test H1, we ran the Poisson regression model that we specified in the previous section. The results support that our model is significant ($\chi^2 = 372.99$, $p < .001$, df = 6). After controlling for length, posting age, photo, service provider, and reviewer gender, we found a significant coefficient for a story element score ($\beta = 0.12$, $p < .001$). Concerning the control variables, the effects of review length ($\beta = .00$, $p < .001$), inclusion of photo ($\beta = 0.91$, $p < .001$), and reviewer gender ($\beta = 0.57$, $p < .001$) showed significant coefficients for usefulness. Coefficient of posting age ($\beta = 0.00$, $p = $ n.s.) and service provider ($\beta = .00$, $p = $ n.s.) were not significant. These results suggest that for each additional story element a review included, the review received 1.13 times more "useful" counts with statistical significance ($e^{.122} = 1.13$, $p < .001$; see Table 3). These results support H1.

7.2. High construal mediation through service type moderation

After confirming that the rated usefulness of customer reviews increased as the number of story elements increased, we proceeded to test the proposed distal story effect mechanism (H2a) using a moderation-of-process design approach (Spencer et al., 2005). Although we theorized high construal as a mediating variable, capturing the construal level as a mediator was unlikely to be successful (Lamberton & Diehl, 2013). Thus, we tested service type (i.e., credence vs. experience) moderation to examine the mediating role of construal. According to this approach, distal story effects will be weakened when high construal is blocked (MacKinnon & Fairchild, 2009). Thus, H2a will be supported if we find that distal story effects hold for credence services but not for experience services.

7.2.1. Design and procedure

To examine mediation of high construal, we tested the interaction between psychological distance (proximal vs. distal) and service type (credence vs. experience). We operationalized psychological distance as spatial distance based on the perceived geographical proximity between reviewer and service provider; if reviewers are in the same city with service providers, we coded them as a proximal distance (0) and a distal distance otherwise (1). Since consumers who read a customer review take the storyteller's perspectives (Green & Brock, 2000), they will perceive that service provider is near (vs. away) when it is located in town (vs. out of town).

Concerning the service type, we identified and coded realtors, dental offices, and auto mechanics as credence services (1) and hotels and hair salons as experience services (0) following generally accepted service type criteria (Hsieh, Chiu, & Chiang, 2005; Ostrom & Iacobucci, 1995). As a result, we obtained 232 reviews from credence services and 432 from experience services. Concerning the reviews with spatial distance, 392 were proximal stories, and 272 were distal stories.

As a first step in testing the mediation mechanism using the moderation-of-process design approach (Spencer et al., 2005), we examined spatial distance ×service type interaction using usefulness count as an outcome variable. Thus, we ran a Poisson regression followed by subgroup analysis, which has been widely used to identify moderator variables and to decompose interaction patterns. This approach is advisable for this study in particular, since a categorical × categorical interaction term in Poisson regression could have a few pitfalls in the interpretation (Sharma, Durand, & Gur-Arie, 1981). Thus, following the subgroup comparison procedure by Sharma et al. (1981), we first split the dataset based on the service type. In each subgroup, credence and experience service, we conducted a Poisson regression to test the impact of spatial distances on usefulness. Thereafter, we compared distal story effects in each service type based on the coefficients for each subgroup. If distal story effects are positive and larger in credence services than in experiential services, this study provides evidence of a process mechanism.

7.2.2. Results and discussion

Consistent with Hypothesis 2a, the spatial distance ×service type interaction was marginally significant ($\beta = 0.27$, $p = .06$). To decompose the interaction pattern, we conducted subgroup analysis and compared the coefficient of Poisson regression. In the credence service groups, as spatial distance increased, story usefulness also increased ($\beta = 0.21$, $p = .06$). Conversely, in the experience service group, the distal story effect was not significant ($\beta = -.01$, $p > .8$). The results suggest that distal story increased the perceived usefulness of the story when high construal is established (i.e., construal of experiences on credence services), but the effects are attenuated to the point where it does not have a significant impact on the perceived usefulness of the story when high construal is interrupted (i.e., construal of experiences on experience services). Moreover, two slopes were significantly different, such that the distal story effects were significantly stronger in the credence than in the experience services ($\beta = 0.22$, SE = 0.11, $t = 2.04$, $p < .05$), thus supporting H2a and providing evidence of the moderation effects of service type (see Fig. 2). In sum, the distal story effects were attenuated when high construal was mitigated by

Table 3
Coefficient estimates of Poisson regression (Study 1).

	Estimate	e^{β}	SE
Story element	0.122***	1.129	0.033
Length	0.002***	1.002	0.000
Posting age	0.000	1.000	0.000
Photo	0.908***	2.479	0.081
Service provider	−0.001	0.999	0.005
Reviewer Gender	0.570***	1.768	0.080

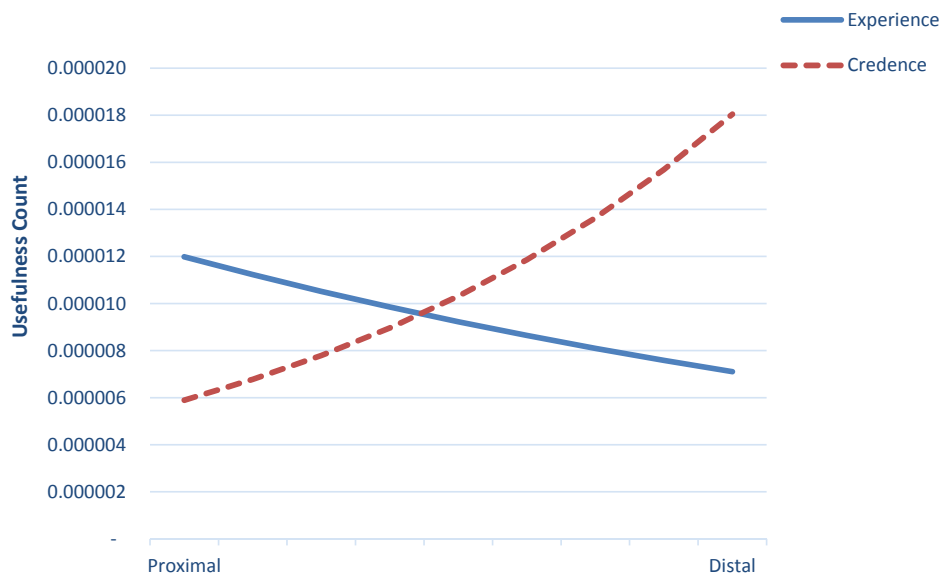*$p < .1$.
**$p < .05$.
 *** $p < .01$.

Fig. 2. Distal story effects and psychological distance (Study 1).

experience services that were construed at a low level, thus providing support for H2a and initial evidence of a process mechanism of high construal for distal story effects.

8. Study 2: high-construal mediation for distal story effects

The purpose of Study 2 is fourfold: (1) to ensure the internal validity of the findings through an experimental replication of Study 1; (2) to extend our findings to another psychological distance dimension (i.e., temporal distance); (3) to test distal story effects using the measure of service expectation (i.e., customer-FLE rapport); and (4) to rule out alternative explanations.

To achieve these goals, we first designed a scenario-based experiment using a fictitious company with a subtle manipulation. The scenario-based approach also addresses concerns pertaining to widely varied linguistic cues and sentiments across reviews in Yelp.com in a field setting. CLT studies address the possible impact of linguistics on the construal level; thus, one might question whether distal story effects could be attributed to the use of abstract vs. concrete words. For example, nouns commonly found in customer reviews, such as speed and reliability, lead consumers to construe the events at a high level, whereas verbs or adverbs, such as "quickly" and "reliably" lead consumers to construe the customer stories at a low level (Jin & He, 2013). Field data have limitations in addressing these concerns. Second, in Study 2, we extend our findings on spatial distance (Study 1) into another dimension of psychological distance, temporal distance. We manipulated temporal distance in this study, attempting to confirm the robustness of our findings for another dimension of psychological distance. Third, we test a more-direct measure of service expectation, expected customer-FLE rapports. Finally, we rule out trust by testing distal story effect mediations through trust.

8.1. Design, participants, and procedure

Two hundred forty-two members of Amazon Mechanical Turk participated for a nominal payment (M_{age} = 37.81 years; 40.9% women). We employed a 2 (psychological distance: proximal vs. distant) × 2 (service type: credence vs. experience) between-subjects design, and the participants were randomly assigned to one of four conditions. To enhance realism, we presented an online customer review page scenario that was designed with the same graphic scheme as that of Yelp.com (see Fig. 3). Stories were also adapted from Yelp.com with a temporal

distance manipulation: a review about events that occurred three months ago (vs. yesterday) in a distal (vs. proximal) condition. We manipulated construal level using service type as used in Study 1: dental office visit (i.e., credence service) and restaurant visit (i.e., experience service).

At the beginning of the experiment, the participants were asked to imagine a situation in which they read an online customer review to find a service provider. They then read a customer review followed by questions on expected rapport with FLEs, adopted from Gremler and Gwinner (2000). The three items were "I would enjoy interacting with the employee," "The employee would be related well to me," and "I would be comfortable interacting with this employee" (1 = strongly disagree, 7 = strongly agree; α = 0.90). Thereafter, to rule out alternative explanations of trust toward the review, we asked trust questions adopted from Thomson (2006): "How much can you count on the review that you just read," "How much do you trust the review," and "How dependable is the customer review that you read" (1 = not at all, 7 = a lot; α = 0.964). To control the factors that influence customers' response to the review, we queried their familiarity with the events described in a story (Van Laer et al., 2014); "How familiar are you with visiting a restaurant for an anniversary?" for an experience service condition; and "How familiar are you with visiting a dental office for a regular checkup?" for a credence service condition (1 = not at all familiar, 7 = extremely familiar). Then, participants responded to a manipulation check question to measure their mental state of construal—"Select the answer choice that best describes your frame of mind right now, near/far" on a 7-point bipolar scale adopted from Allard and Griffin (2017). Finally, the participants provided demographic information (e.g., age and gender). See Appendix A for key measures across studies.

8.2. Results and discussion

8.2.1. Manipulation checks

As expected, a mean comparison for the manipulation check confirmed that participants in the proximal conditions felt a state of mind that was more "near" (M = 2.37, SD = 1.48) than did those who were in the distal conditions (M = 2.88, SD = 1.34; F (1, 240) = 7.94, p = .01). Thus, the manipulation of psychological distance using the temporal distance dimension was successful across conditions.

Service Type	Distal Story	Proximal Story
Credence	★★★★☆ Matt L. I went to Five Star Dental three months ago. Never in my life have I been as comfortable, welcome, and catered to in any medical office. Walking in the door that day, I was immediately greeted by everyone behind the desk including a handshake. I was offered water or coffee to warm up. While waiting, several people checked up on me. When I was taken back, the assistant had me a tour and sat me down to get to know me and go over my medical history. Everyone bent over backward to make me feel comfortable and help me understand every step. I have severe medical phobias, and I was completely at ease during my visit that day. Incredible place.	★★★★☆ Matt L. I went to Five Star Dental yesterday. Never in my life have I been as comfortable, welcome, and catered to in any medical office. Walking in the door yesterday, I was immediately greeted by everyone behind the desk including a handshake. I was offered water or coffee to warm up. While waiting, several people checked up on me. When I was taken back, the assistant had me a tour and sat me down to get to know me and go over my medical history. Everyone bent over backward to make me feel comfortable and help me understand every step. I have severe medical phobias, and I was completely at ease during my visit that day. Incredible place.
Experience	★★★★☆ Matt L. Went to restaurant Z for an anniversary dinner three months ago. I didn't have reservations but were quickly able to snag a couple of seats at the bar. The server was very friendly and helpful explaining several sections on the menu and making great drink suggestions as well. I can definitely say that I was very pleasantly surprised last night. All of the food we were served as nothing short of exceptional. I tried one of the large plates that was a rotating special and it was, hands down. Every single item on the plate was cooked to absolute perfection last night. Do yourself a favor and give this wonderful restaurant a try!	★★★★☆ Matt L. Went to restaurant Z for an anniversary dinner last night. I didn't have reservations but were quickly able to snag a couple of seats at the bar. The server was very friendly and helpful explaining several sections on the menu and making great drink suggestions as well. I can definitely say that I was very pleasantly surprised last night. All of the food we were served as nothing short of exceptional. I tried one of the large plates that was a rotating special and it was, hands down. Every single item on the plate was cooked to absolute perfection last night. Do yourself a favor and give this wonderful restaurant a try!

Fig. 3. Service type and psychological distance manipulation (Study 2).

8.2.2. Distal story effects for service expectation.

Our theory predicted that participants who read a distal (vs. proximal) story will have more positive service expectations toward a service provider in the credence (vs. experience) service condition. To test our prediction, we conducted an ANCOVA while controlling gender and story familiarity, which could have a significant impact on attitudes toward the story content (Van Laer et al., 2018).

A 2 (psychological distance: proximal vs. distant) $\times$ 2 (service type: credence vs. experience) ANCOVA, using rapport with FLE as the dependent variable, produced marginally significant interaction effects (F (1, 236) = 3.581, p = .06). Neither main effect was significant (all Fs < 1). In addition, we conducted simple effects tests to investigate whether the effects of psychological distance depended on service type.

The results revealed that distal stories marginally lead to a higher expected rapport than proximal stories ($M_{proximal}$ = 5.48, M_{distal} = 5.87, F (1,236) = 2.8, p < .1) in the credence condition; however, these distal story effects were no longer present in the experience services, as we predicted in H2b ($M_{proximal}$ = 5.74, M_{distal} = 5.56, F < 1, p = n.s.).

The results demonstrate that when the reviewers evaluate credence services, a distal (vs. proximal) story enhances customer-FLE rapport expectation; however, such distal story effects are attenuated for experience service evaluation. That is, the distal story effects hold when mental construal stays at a high level (i.e., credence services); however, they are attenuated when high construal is mitigated (i.e., experience services). The results from the moderation-of-process approach in this study support the mediation of high construal for distal story effects
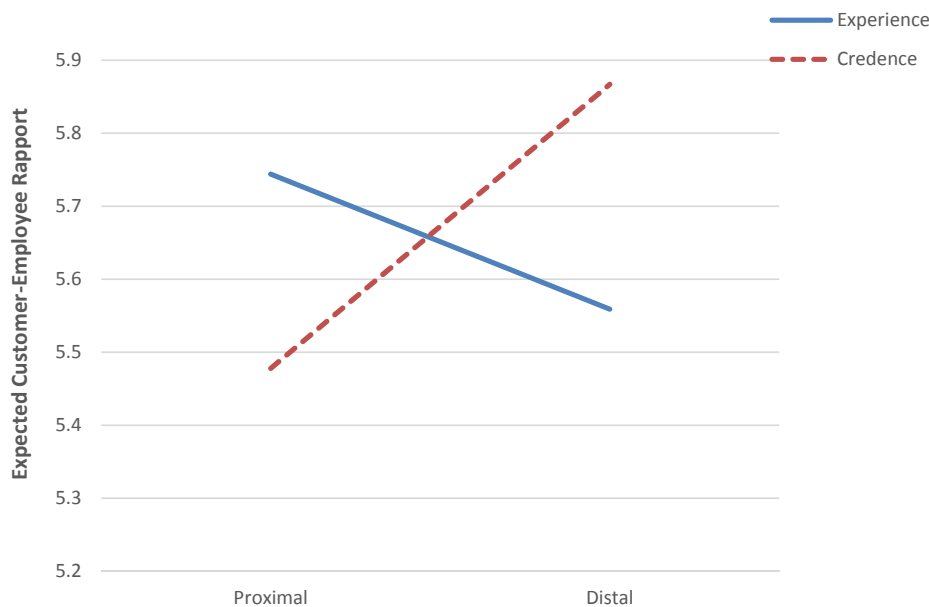
Fig. 4. Distal story effects and psychological distance (Study 2).

(Spencer et al., 2005). Interaction patterns and simple effects analysis results were consistent with Study 1 findings; distal story effects hold for credence services (see Fig. 4). Thus, our experimental replication of Study 1 findings was successful.

Although we found consistent results from previous studies, several concerns remain. One concern relates to potential confounds from using different scenarios for the service type manipulation. More importantly, our theory suggests that high construal is a process mechanism for customer story effects across service contexts, although distal story effects could be strengthened or attenuated depending on the service context. Thus, we should expect a high construal mediation mechanism in an experience service context as well. In the next study, we address these concerns by testing the mediation mechanism of high construal by measuring a conceptual mediator, narrative transportation.

8.2.3. Trust as an alternative explanations of distal story effects.

To rule out trust as a factor that drives distal story effects, we examined the relationship between psychological distance and trust. The results showed an insignificant relationship ($F (1,240) = 0.217$, $p = $ n.s.). To find more-conclusive evidence to rule out trust, we conducted a mediation test using Hayes (2017) PROCESS macro (Model 4). We found a nonsignificant mediation effect of trust. The bootstrap procedure generated a confidence interval (CI) that includes zero at 95% ($-0.2196, 0.1347$). Based on these results, we ruled out trust as a possible mediator for distal story effects.

9. Study 3A: Narrative transportation for temporally distal story effect mechanism

Study 3A has three purposes: (1) replicate the mediation mechanism of distal story effects by measuring the conceptual mediator, high construal, (2) provide conclusive process evidence of high construal by testing distal story effects in an experience service context, and (3) examine the robustness of distal story effects to a global outcome variable, service provider evaluation. To achieve these goals, we measured narrative transportation as a proxy measure for high construal engendered by a distal story. We manipulated temporal distance cues in a scenario by communicating when the service experience occurred. In addition to testing the distal story effect mechanism for customer-FLE rapport, we measured overall service provider evaluation as another consequence variable of the distal story effect mechanism.

9.1. Method

Study 3A utilized a single-factor between subjects design (distal versus proximal story). We took a scenario-based approach in an online setting. A total of 62 participants from Amazon Mechanical Turk participated ($M_{age} = 31.19$ years; 40.7% women). They read a customer story on mobile app service experiences for coffee ordering. We manipulated the temporal distance by presenting a story about the events occurring earlier today (i.e., proximal) vs. three years ago (i.e., distal). The two scenarios were identical, except for the time of the service experience occurrence to minimize linguistic effects on the construal level. Participants read the following[2]:

Proximal condition:

"Earlier today, I used the Coffee Café Mobile Order app for my morning coffee routine for the very first time. I parked at my kid's school, placed my order in the parking lot, took him inside, then walked over to the Coffee Café and picked up my drink. The app cut 10 min out of my morning routine and is the reason I made it on time to work today."
- Busy mom Laura Smith

Distal condition:

"About three years ago, I used the Coffee Café Mobile Order app for my morning coffee routine for the very first time. On that day, I parked at my kid's school, placed my order in the parking lot, took him inside, then walked over to the Coffee Café and picked up my drink. The app cut 10 min out of my morning routine and is the reason I made it on time to work that day."
- Busy mom Laura Smith

First, the participants read a story and were then asked to imagine that they had arrived at the store and were interacting with an employee; this task was followed by questions about expected customer-FLE rapport using the same scales adopted from Gremler and Gwinner (2000) as the previous studies ($\alpha = 0.87$). Thereafter, the participants answered the questions on the overall service provider evaluation, adopted from Dawar and Pillutla (2000): "Coffee Café is trustworthy," "Coffee Café provides high quality coffee and services," and "Coffee

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[2] The hypothetical scenario was created referring to the customer story at https://news.starbucks.com/news/fans-of- starbucks-mobile-order-and-pay

Café is a desirable brand" (1 = strongly disagree, 7 = strongly agree; α = 0.81). Then, they answered the items measuring narrative transportation; the items were adapted from Green and Brock (2000). Participants rated the extent to which they agreed (7 = strongly agree, 1 = strongly disagree) with the statements "I could easily picture the events in it taking place," "I had a vivid image of Lauren's situation in the story," and "My thoughts were fully focused on the story" (α = 0.859), followed by story familiarity and demographic questions. Narrative transportation studies have found that a story receiver's prior knowledge or experience of the story topic (Green, 2004) can enhance story effects (Green, 2004). Moreover, women reported significantly greater narrative transportation than men (Green & Brock, 2000). Thus, we included questions about the participants' app familiarity and coffee consumption habits and demographic questions to control for gender and familiarity effects, as in the previous studies. To control familiarity, we asked, "How familiar are you with the use of mobile apps to pay for services or products?" (7-point scale anchored at "not at all familiar" and "extremely familiar"), and "How often do you drink coffee?" (7-point scale anchored at "never" and "always"). At the end of the survey, the participants answered temporal distance manipulation check questions and provided demographic information.

9.2. Results and discussion

9.2.1. Manipulation check

We conducted a manipulation check by asking, "How long ago did the event depicted in Laura's story occur?" (7-point scale anchored at "a long time ago" and "very recently"). The results showed that the manipulation was successful. The participants in the proximal condition perceived that the event in the story occurred more recently than did those in the distal condition ($M_{proximal}$ = 6.19 vs. M_{distal} = 4.19, F (1, 60) = 20.253, $p < .001$).

9.2.2. Mediation analysis

We conducted a mediation test using Hayes (2017) PROCESS macro (Model 4) to test the significance of the indirect effects of a distal story on expected rapport with an FLE through narrative transportation. We employed coffee consumption habit, app familiarity, and gender as covariates to control the potential effects of familiarity and gender. We found support for a distal story effects mechanism through narrative transportation (i.e., high construal). The bootstrap procedure generated a CI that did not include zero at 95% (0.0013, 0.4797). More specifically, the distal story increased narrative transportation (b = 0.49 t = 1.92, p = .06), which in turn, enhanced expected customer-FLE rapport (b = 0.46, t = 3.20, $p < .01$). The direct effect of temporal distance on service encounter expectations was not significant at 95% (t = 0.22, p = .82, CI = [-0.5028, 0.6287]). Thus, the results confirmed an indirect only mediation effect (i.e., full mediation), thereby supporting H3a.

We tested overall service provider evaluation using the same procedure, and the results showed a significant distal effect mechanism for service provider evaluation, as they did for expected customer-FLE rapport. The bootstrap procedure generated a CI that did not include zero at 95% (0.0034, 0.4711). More specifically, the distal story increased narrative transportation (b = 0.49 t = 1.92, p = .06), which in turn enhanced overall service provider evaluation (b = 0.44, t = 4.62, $p < .01$). Thus, we found support for H3b by showing a significant indirect effect for overall service provider evaluation. The direct effect of temporal distance on service provider evaluation was not significant at 95% (t = -0.73, p = .47, CI = [-0.5187, 0.2426]); thus, the distal story effect mechanism for overall service provider evaluations showed consistent patterns with customer-FLE rapport.

9.2.3. Discussion

In Study 3A, we found a mediation mechanism of high construal for distal story effects by measuring a proxy for high construal, narrative

transportation. Thus, stories about the service experiences that occurred in the distant (vs. proximal) past increased narrative transportation, which in turn enhance service expectations. The mediation test results supported H3a and H3b by demonstrating that narrative transportation, a proxy for high construal, is a process mechanism of a distal story effect. This result is consistent with our previous findings in Studies 1 and 2; thus, the results in this study provide converging evidence of a distal story effect mechanism of high construal. In the next study, we replicate the findings from Study 3A in another dimension of psychological distance, spatial distance.

10. Study 3B: narrative transportation for a spatially distal story effect mechanism

Study 3B was conducted to confirm the robustness of the findings of Study 3A through an experimental replication in a different psychological distance context, spatial distance.

10.1. Method

In Study 3B, we replicated Study 3A findings in a spatial distance context. We employed the same design —a single-factor, between-subjects design (distal vs. proximal story). To diversify the participants, this time, we recruited a total of 86 undergraduate students (M_{age} = 21.12 years; 34.9% women). Students voluntarily participated in the study in return for extra credits. We used the same scenario employed in Study 3A, but with a spatial distance manipulation—-storyteller's location. Since the participants were students at the same university, their residence was bound to a single city. Thus, we could ensure that variances in the feelings of distance from the city in a scenario across participants were minimal. In the proximal condition, we presented a story from a customer living in the same city as the participating university students (XXXX, ST),[3] and we used a story from someone living far from the university (Portland, Oregon) in the distal condition (dummy-coded, proximal = 0; distal = 1). Participants read the following [4]:

Proximal condition

"I often use the Coffee Café Mobile Order app for my morning coffee routine. I park at my school in XXXX, ST, place my order in the parking lot, then walk over to the Coffee Café and pick up my drink on the way to the class. The app cuts 10 min out of my busy morning routine, and helps me make it to my early morning class on time." – Andria Hudson (college student, XXXX, ST)

Distal condition:

"I often use the Coffee Café Mobile Order app for my morning coffee routine. I park at my school in Portland, Oregon, place my order in the parking lot, then walk over to the Coffee Café and pick up my drink on the way to the class. The app cuts 10 min out of my busy morning routine, and helps me make it to my early morning class on time."
– Andria Hudson (college student, Portland, Oregon)

As with Study 3A, the participants were asked to imagine that they had arrived at the store and were interacting with an employee after reading a story. A series of questions measuring expected customer-FLE rapport (α = 0.80), service provider evaluation (α = 0.86), and narrative transportation (α = 0.76) followed. Thereafter, the participants answered the questions about app familiarity and coffee consumption

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[3] Although we used the real name of the location in the experiment, for the purpose of the blind review, we did not disclose the name of the city in the manuscript.

[4] The hypothetical scenario was created referring to the customer story at https://news.starbucks.com/news/fans-of- starbucks-mobile-order-and-pay

habit. In addition, we asked about visit experiences to the city, which was in a distal condition, to check if the familiarity of the city influences distal story effects. At the end of the survey, participants answered a manipulation check question—"Where did the event depicted in the story occur?" (7-point scale anchored at "very far away from me" and "very close to me")—with demographic questions. All items were the same as those that we used in Study 3A.

10.2. Results and discussion

10.2.1. Manipulation check

The manipulation check confirmed that the participants in the proximal condition perceived that the events in the story occurred closer to them than those who were in the distal condition ($M_{proximal} = 5.95$ vs. $M_{distal} = 3.02$, F (1, 84) = 44.57, $p < .001$). We also checked whether the participants in the distal condition used to visit or live in the city (Portland), which could have influenced our manipulation. Only two participants in the distal condition had visited or lived in the city depicted in the distal-condition scenario. Visiting or living experience did not have a significant relationship with the mediating variable, narrative transportation ($b = 0.43$, $t = 0.54$, $p > .1$). Thus, we conclude that our manipulation was successful without being influenced by visiting or living experiences in distal cities.

10.2.2. Mediation analysis.

Eighty-six participants completed all the measures necessary for the analysis. Of these, 41 participants were randomly assigned to the proximal condition and 45 participants to the distal condition. To test a mediation mechanism of high construal, we employed the same procedure that we used in Study 3A. The mediation test results using Hayes (2017) PROCESS macro (Model 4) supported H3a and H3b, showing a significant, indirect only effect. The bootstrap procedure generated a 95% bias-corrected CI that did not include zero (0.0044, 0.3553) for the indirect effect of spatial distance on customer-FLE rapport through narrative transportation (i.e., distal story → narrative transportation → customer-FLE rapport expectations). The direct relationship between spatial distance and service encounter evaluation, after accounting for narrative transportation, was insignificant ($b = 0.16$, $t = 0.77$, $p = .45$, CI = $[-0.2538, 0.5718]$). More specifically, the distal story increased narrative transportation ($b = 0.50$, $t = 2.20$, $p = .03$), which in turn, enhanced service encounter expectations ($b = 0.30$, $t = 3.04$, $p < .01$). We tested overall service provider evaluation using the same procedure, and it showed the same significant indirect effects of the distal story as in the service encounter evaluation. The bootstrap procedure generated a CI that did not include zero at 95% (0.0021, 0.3543), showing that the distal story increased narrative transportation ($b = 0.50$, $t = 2.20$, $p = .03$), which in turn enhanced overall service provider evaluation ($b = 0.31$, $t = 3.04$, $p < .01$). The direct effect of temporal distance on service provider evaluation was not significant at 95% ($t = 0.79$, $p = .43$, CI = $[-0.2684, 0.6249]$). Thus, we found support for a significant indirect effect for the distal story effect mechanism and replicate our findings in Study 3A.

10.2.3. Discussion

Our results replicated Study 3A findings in a spatial distance context. Thus, we found conclusive evidence of a high-construal mediation mechanism and confirmed that temporal distal story effects can be extended to another dimension of psychological distance, spatial distance.

11. General discussion

As reading customer stories becomes routine for a customers in evaluating a potential service provider, understanding how stories influence consumers' expectations of the service encounter *ex ante* is

essential. In this study, we investigated the mechanism through which customer stories influence prospective customers' service expectations. Building on CLT and narrative transportation theory, we predicted that distal (vs. proximal) stories would have a greater positive impact on consumers' service expectations because they promote a high-level construal of the story narrated in customer reviews. Taking a moderation-of-process approach (Spencer et al., 2005), we also predicted that such distal story effects would not hold when high construal is interrupted.

The results from the four studies supported our predictions, demonstrating that stories which promote greater psychological distance (i.e., feeling far) have a larger impact on service expectations and that story effects are attenuated when consumers construe experience (vs. credence) service encounters that are construed at high (low) levels due to the high (low) uncertainty of service outcomes (Studies 1 and 2). The subsequent studies provided further evidence of the high construal process mechanism by showing that distal (vs. proximal) stories (i.e., stories about events occurring nearby vs. far away or recently vs. a long time ago) enhance narrative transportation, a process of distancing the self from reality for a journey into the story world (Green & Brock, 2000), thereby creating a high construal mindset and eliciting a positive impact on service expectations.

11.1. Theoretical and managerial implications

The present research reveals the psychological mechanism of story effects that drives consumers' expectations regarding service experiences. Chiefly, we add to the extant literature on psychological distance in services, as our findings identify high construal as the mechanism underlying the effects of customer stories on readers' service outcomes. This story-effect account deviates from previous studies that suggest that psychological distance leads to undesirable customer outcomes, such as reduced visits or purchase intentions (Darke et al., 2016; Orth, Lockshin, Spielmann, & Holm, 2018). In addition, we expand the types of objects that engender psychological distance considered in the extant literature. Whereas prior service research has focused on the impact of psychological distance from consumers' direct past or future experiences (Ding & Keh, 2017; Wakefield & Wakefield, 2018), we examine the psychological distance that consumers experience from the indirect consumption experiences obtained by reading other customers' stories. We also contribute to the extant CLT and narrative transportation literature through theory extension. To the best of our knowledge, this article is the first empirical study to establish a linkage between CLT and narrative transportation in explaining the high construal mechanism of story effects.

Drawing on our findings, we have some normative suggestions for service managers. For example, while it might seem sensible for credence service providers to encourage customers to tell their stories about their recent experiences in order to make them more relevant, we suggest that the opposite course of action (e.g., encouraging customers to tell their old stories) might be more beneficial. One suggestion could be for credence service providers to offer customers who reside in geographically distant places incentives (e.g., discounts or rewards) to post their stories about service experiences. Similarly, marketing managers could delay the time when customers could tell their stories. For example, marketers could send a reminder to their customers to post their stories several months later rather than immediately following their visits.

Another suggestion is that marketing managers, particularly managers of experience services, may frame the stories they want customers to post in a way that does not introduce cues that generate low construal. We have found instances in which low construal interrupts story effects: the construal of experience services. Thus, particularly for experience services, managers could incentivize customers to tell their stories, with an emphasis on affect-based abstract features (e.g., solicit stories about fun or emotional experiences at restaurants rather than

concrete benefits, such as discounts or a restaurant's convenient locations), which are construed at a high level (Williams & Bargh, 2008). This would help minimize the introduction of low construal in service experiences.

11.2. Limitations and directions for future research

The current study also suggests several relevant issues for future research. In the present study, we dichotomized psychological distance (i.e., distal vs. proximal) to test distal story effects. However, one might argue that a distal story that engenders an overly abstract mindset will make it difficult to generate consumer responses because of the difficulty in picturing the reviewer's experiences due to lack of familiarity. On a related note, it is known that a minimum familiarity level is needed to elicit narrative transportation and simulate indirect service experiences (Van Laer et al., 2014). Future research could examine nonlinear relationships between construal level and story effects in order to further our understanding of complicated story effects. Another

possible future research avenue relates to examining social distance. Although CLT suggests that our findings can be extended to the social distance dimension (Trope & Liberman, 2010; Zhang & Wang, 2009), it is also argued that social distance is a key factor that influences customer-FLE service interactions (e.g., Dion & Borraz, 2017). Thus, testing the impact of the social distance generated by the story can provide meaningful theoretical and managerial implications. Finally, future research could also address the impact from one review on other reviews. People read multiple reviews about the same service provider, and considering that reviews are not read in isolation, one review with high narrativity could affect subsequent reviews.

Unraveling the effects of customer stories is a complicated and challenging task, particularly with ever-evolving, technology-mediated, customer-to-customer, and customer-to-service provider communications. Many questions remain unanswered. We hope that this study paves the way toward advancing this increasingly important area of study.

Appendix A. . Key measures

Scale (Thompson, 1997)	Study 2			Study 3A			Study 3B		
	M	(SD)	α	M	(SD)	α	M	(SD)	α
Customer-FLE Rapport (Gremler & Gwinner, 2000)	5.65	1.16	0.895	5.48	1.20	0.869	4.92	0.97	0.801
I would enjoy interacting with the employeeThe employee would be related well to me	5.57	1.32		5.29	1.50		4.98	1.21	
I would be comfortable interacting with this employee	5.47	1.33		5.23	1.38		4.48	1.17	
	5.91	1.17		5.92	1.16		5.31	1.07	
Service Provider Evaluation (Dawar & Pillutla, 2000)	n/a	n/a	n/a	5.72	0.95	0.811	5.19	1.06	0.862
Coffee Café is trustworthy				5.74	1.17		5.21	1.19	
Coffee Café provides high quality coffee and services				5.71	1.08		5.22	1.27	
Coffee Café is desirable brand				5.69	1.10		5.15	1.14	
Trust (Thomson, 2006)	5.10	1.31	0.964	n/a	n/a	n/a	n/a	n/a	n/a
How much can you count on the review that you just read?	5.05	1.34							
How much do you trust the review?	5.10	1.38							
How dependable is the customer review that you read?	5.13	1.37							
Narrative Transportation (Green & Brock, 2000)	n/a	n/a	n/a	5.86	1.13	0.859	5.14	1.12	0.762
I could easily picture the events in it taking place				6.03	1.19		5.76	1.10	
I had a vivid image of Lauren's situation in the story				5.60	1.45		4.64	1.59	
My thoughts were fully focused on the story				5.95	1.21		5.02	1.38	

All scales are 7-point Likert Scale.

Appendix B. Supplementary material

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jbusres.2020.01.044.

References

Allard, T., & Griffin, D. (2017). Comparative price and the design of effective product communications. *Journal of Marketing, 81*(5), 16–29.

Bennett, A., & Royle, N. (2004). *Introduction to literature, criticism and theory.* Harlow, UK: Pearson.

Black, H. G., & Kelley, S. W. (2009). A storytelling perspective on online customer reviews reporting service failure and recovery. *Journal of Travel & Tourism Marketing, 26*(2), 169–179. https://doi.org/10.1080/10548400902864768.

Bone, P. F., & Ellen, P. S. (1992). The generation and consequences of communication-evoked imagery. *Journal of Consumer Research, 19*(1), 93–104. https://doi.org/10.1086/209289.

Chen, Z., & Lurie, N. H. (2013). Temporal contiguity and negativity bias in the impact of online word of mouth. *Journal of Marketing Research, 50*(4), 463–476. https://doi.org/10.1509/jmr.12.0063.

Coxe, S., West, S. G., & Aiken, L. S. (2009). The analysis of count data: A gentle introduction to Poisson regression and its alternatives. *Journal of Personality Assessment, 91*(2), 121–136. https://doi.org/10.1080/00223890802634175.

Darke, P. R., Brady, M. K., Benedicktus, R. L., & Wilson, A. E. (2016). Feeling close from afar: The role of psychological distance in offsetting distrust in unfamiliar online retailers. *Journal of Retailing, 92*(3), 287–299. https://doi.org/10.1016/j.jretai.2016.02.001.

Dawar, N., & Pillutla, M. M. (2000). Impact of product-harm crises on brand equity: The moderating role of consumer expectations. *Journal of Marketing Research, 37*(2), 215–226. https://doi.org/10.1509/jmkr.37.2.215.18729.

Denning, S. (2004). Telling tales. *Harvard Business Review, 82*(5), 122–129.

Ding, Y., & Keh, H. T. (2017). Consumer reliance on intangible versus tangible attributes in service evaluation: The role of construal level. *Journal of the Academy of Marketing Science, 45*(6), 848–865. https://doi.org/10.1007/s11747-017-0527-8.

Dion, D., & Borraz, S. (2017). Managing status: How luxury brands shape class subjectivities in the service encounter. *Journal of Marketing, 81*(5), 67–85.

Förster, J., Friedman, R. S., & Liberman, N. (2004). Temporal construal effects on abstract and concrete thinking: Consequences for insight and creative cognition. *Journal of Personality and Social Psychology, 87*(2), 177–189. https://doi.org/10.1037/0022-3514.87.2.177.

Fowler, G. A., & Avila, J. D. (2009, Oct 5). On the internet, everyone's a critic but they're not very critical. Wall Street Journal. Retrieved from < https://www.wsj.com/articles/SB125470172872063071 > .

Green, M. C. (2004). Transportation into narrative worlds: The role of prior knowledge and perceived realism. *Discourse Processes, 38*(2), 193–218. https://doi.org/10.1207/s15326950dp3802.

Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology, 79*(5), 701–721. https://doi.org/10.1037/0022- 3514.79.5.701.

Gremler, D. D., & Gwinner, K. P. (2000). Customer-employee rapport in service relationships. *Journal of Service Research, 3*(1), 82–104. https://doi.org/10.1177/109467050031006.

Gremler, D. D., & Gwinner, K. P. (2008). Rapport-building behaviors used by retail employees. *Journal of Retailing, 84*(3), 308–324. https://doi.org/10.1016/j.jretai.2008.07.001.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis:*

A regression-based approach. New York: Guilford Publications.

Hennig-Thurau, A. T., Groth, M., Paul, M., & Gremler, D. D. (2006). Are all smiles created equal? how emotional contagion labor affect service relationships. *Journal of Marketing, 70*(3), 58–73.

Holmqvist, J., Guest, D., & Grönroos, C. (2015). The role of psychological distance in value creation. *Management Decision, 53*(7), 1430–1451. https://doi.org/10.1108/MD-06-2014-0335.

Hsieh, Y. C., Chiu, H. C., & Chiang, M. Y. (2005). Maintaining a committed online customer: A study across search-experience-credence products. *Journal of Retailing, 81*(1), 75–82. https://doi.org/10.1016/j.jretai.2005.01.006.

Huang, N., Burtch, G., Hong, Y., & Polman, E. (2016). Effects of multiple psychological distances on construal and consumer evaluation: A field study of online reviews. *Journal of Consumer Psychology, 26*(4), 474–482.

Jin, L., & He, Y. (2013). Designing service guarantees with construal fit: Effects of temporal distance on consumer responses to service guarantees. *Journal of Service Research, 16*(2), 202–215. https://doi.org/10.1177/1094670512468330.

Jin, L., Hu, B., & He, Y. (2014). The recent versus the out-dated: An experimental examination of the time-variant effects of online consumer reviews. *Journal of Retailing, 90*(4), 552–566. https://doi.org/10.1016/j.jretai.2014.05.002.

Jurafsky, D., Chahuneau, V., Routledge, B. R., & Smith, N. A. (2014). Narrative framing of consumer sentiment in online restaurant reviews. First Monday, 19(4). Retrieved from < https://firstmonday.org/ojs/index.php/fm/article/view/4944/3863 > .

Keh, H. T., & Pang, J. (2010). Customer reactions to service separation. *Journal of Marketing, 74*(2), 55–70. https://doi.org/10.1509/jmkg.74.2.55.

Kirmani, A., Hamilton, R. W., Thompson, D. V., & Lantzy, S. (2017). Doing well versus doing good: The differential effect of underdog positioning on moral and competent service providers. *Journal of Marketing, 81*(1), 103–117. https://doi.org/10.1509/jm.15.0369.

Lamberton, C. P., & Diehl, K. (2013). Retail choice architecture: The effects of benefit- and attribute-based assortment organization on consumer perceptions and choice. *Journal of Consumer Research, 40*(3), 393–411. https://doi.org/10.1086/671103.

Levine, S. R. (2017). Success needs a strong story. Retrieved April 10, 2019, from < https://www.forbes.com/sites/forbesinsights/2017/10/24/success-needs-a-strong-story/#6e4048ca213c > .

Li, H., Zhang, Z., Meng, F., & Zhang, Z. (2019). "When you write review" matters: The interactive effect of prior online reviews and review temporal distance on consumers' restaurant evaluation. *International Journal of Contemporary Hospitality Management, 31*(3), 1273–1291.

Lii, Y. S., Pant, A., & Lee, M. (2012). Balancing the scales: Recovering from service failures depends on the psychological distance of consumers. *Service Industries Journal, 32*(11), 1775–1790. https://doi.org/10.1080/02642069.2011.575130.

MacKinnon, D. P., & Fairchild, A. J. (2009). Current directions in mediation analysis. *Current Directions in Psychological Science, 18*(1), 16–20. https://doi.org/10.1111/j.1467-8721.2009.01598.x.

Malaviya, P., & Sternthal, B. (2008). Parity product features can enhance or dilute brand evaluation: The influence of goal orientation and presentation format. *Journal of Consumer Research, 36*(1), 112–121. https://doi.org/10.1086/595717.

Matilla, A. S. (2000). The impact of culture and gender on web sites. *Journal of Hospitality & Tourism Research, 24*(2), 262–273. https://doi.org/10.1145/506740.506744.

Mattila, A. S. (2000). The role of narratives in the advertising of experiential services. *Journal of Service Research, 3*(1), 35–45. https://doi.org/10.1177/109467050031003.

Miao, L., & Mattila, A. S. (2013). The impact of other customers on customer experiences: A psychological distance perspective. *Journal of Hospitality & Tourism Research, 37*(1), 77–99.

Mitchell, T. R., Thompson, L., Peterson, E., & Cronk, R. (1997). Temporal adjustments in the evaluation of events: The "rosy view". *Journal of Experimental Social Psychology, 33*(33), 421–448. https://doi.org/10.1006/jesp.1997.1333.

Norman, R., Tjomsland, H. E., & Huegel, D. (2016). No the distance between us: Using construal level theory to understand interpersonal distance in a digital age. *Frontiers in Digital. Humanities, 3*(5), https://doi.org/10.3389/fdigh.2016.00005.

Orth, U. R., Lockshin, L., Spielmann, N., & Holm, M. (2018). Design antecedents of telepresence in virtual service environments. *Journal of Service Research.* https://doi.org/10.1177/1094670518812705.

Ostrom, A., & Iacobucci, D. (1995). Consumer trade-offs and the evaluation of services. *Journal of Marketing, 59*(1), 17. https://doi.org/10.2307/1252011.

Pan, Y., & Zhang, J. Q. (2011). Born unequal: A study of the helpfulness of user-generated product reviews. *Journal of Retailing, 87*(4), 598–612. https://doi.org/10.1016/j.jretai.2011.05.002.

Parasuraman, A. P., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), 12–40. https://doi.org/10.1016/S0148-2963(99)00084-3.

Pizzi, G., Marzocchi, G. L., Orsingher, C., & Zammit, A. (2015). The temporal construal of customer satisfaction. *Journal of Service Research, 18*(4), 484–497. https://doi.org/10.1177/1094670515584752.

Sharma, S., Durand, R. M., & Gur-Arie, O. (1981). Identification and analysis of moderator variables. *Journal of Marketing Research, 18*(3), 291–300. https://doi.org/10.2307/3150970.

Spencer, S. J., Zanna, M. P., & Fong, G. T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining

psychological processes. *Journal of Personality and Social Psychology, 89*(6), 845–851. https://doi.org/10.1037/0022-3514.89.6.845.

Taylor, S. E., & Schneider, S. K. (1989). Coping and the simulation of events. *Social Cognition, 7*(2), 174–194.

Thompson, C. J. (1997). Interpreting consumers: A hermeneutic framework for deriving marketing insights from the texts of consumers' consumption stories. *Journal of Marketing Research, 34*(4), 438–455. https://doi.org/10.2307/3151963.

Thomson, M. (2006). Human brands: Investigating antecedents to consumers' strong attachments to celebrities. *Journal of Marketing, 70*(3), 104–119. https://doi.org/10.1509/jmkg.70.3.104.

Trope, Y., & Liberman, N. (2000). Temporal construal and time-dependent changes in preference. *Journal of Personality and Social Psychology, 79*(6), 876–889. https://doi.org/10.1037/0022-3514.79.6.876.

Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review, 117*(2), 443–463. https://doi.org/10.1037/a0018963.

Trope, Y., Liberman, N., & Wakslak, C. (2007). Construal levels and psychological distance: Effects on representation, prediction, evaluation, and behavior. *Journal of Consumer Psychology, 17*(2), 83–95. https://doi.org/10.1016/S1057-7408(07)70013-X.

Umashankar, N., Ward, M. K., & Dahl, D. W. (2017). The benefit of becoming friends: Complaining after service failures leads customers with strong ties to increase loyalty. *Journal of Marketing, 81*(6), 79–98. https://doi.org/10.1509/jm.16.0125.

Van den Hende, E. A., Dahl, D. W., Schoormans, J. P. L., & Snelders, D. (2012). Narrative transportation in concept tests for really new products: The moderating effect of reader-protagonist similarity. *Journal of Product Innovation Management, 29*, 157–170. https://doi.org/10.1111/j.1540- 5885.2012.00961.x.

Van Laer, T., Edson Escalas, J., Ludwig, S., & Van den Hende, E. (2018). What happens in Vegas stays on TripAdvisor? A theory and technique to understand narrativity in consumer reviews. *Journal of Consumer Research..* https://doi.org/10.2139/ssrn.2702484.

Van Laer, T., Visconti, L. M., & Wetzels, M. (2014). The extended transportation-imagery model: A meta- analysis of the antecedents and consequences of consumers' narrative. *Journal of Consumer Research, 40*(February), 797–817. https://doi.org/10.1086/673383.

Volkman, J. E., & Parrott, R. L. (2012). Expressing emotions as evidence in osteoporosis narratives: Effects on message processing and intentions. *Human Communication Research, 38*(4), 429–458. https://doi.org/10.1111/j.1468-2958.2012.01433.x.

Wakefield, L. T., & Wakefield, K. L. (2018). An examination of construal effects on price perceptions in the advance selling of experience services. *Journal of Service Research, 21*(2), 235–248. https://doi.org/10.1177/1094670517738367.

Weathers, D., Sharma, S., & Wood, S. L. (2007). Effects of online communication practices on consumer perceptions of performance uncertainty for search and experience goods. *Journal of Retailing, 83*(4), 393–401. https://doi.org/10.1016/j.jretai.2007.03.009.

Weiss, A. M., Lurie, N. H., & MacInnis, D. J. (2008). Listening to strangers: Whose responses are valuable, how valuable are they, and why? *Journal of Marketing Research, 45*(4), 425–436.

White, K., MacDonnell, R., & Dahl, D. W. (2011). It's the mind-set that matters: The role of construal level and message framing in influencing consumer efficacy and conservation behaviors. *Journal of Marketing Research, 48*(3), 472–485. https://doi.org/10.1509/jmkr.48.3.472.

Williams, L. E., & Bargh, J. A. (2008). Keeping one's distance: The influence of spatial distance cues on affect and evaluation. *Psychological Science, 19*(3), 302–309.

Winsted, K. F. (1997). The service experience in two cultures: A behavioral perspective. *Journal of Retailing, 73*(3), 337–360. https://doi.org/10.1016/S0022-4359(97)90022-1.

Wong, V. C., & Wyer, R. S. (2016). Mental traveling along psychological distances: The effects of cultural syndromes, perspective flexibility, and construal level. *Journal of Personality and Social Psychology, 111*(1), 17–33. https://doi.org/10.1037/pspa0000048.

Zhang, M., & Wang, J. (2009). Psychological distance asymmetry: The spatial dimension vs. other dimensions. *Journal of Consumer Psychology, 19*(3), 497–507. https://doi.org/10.1016/j.jcps.2009.05.001.

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