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Yuhua (Jake) Liang
Chapman University, liang@chapman.edu

Riva Tukachinsky
Chapman University, tukachin@chapman.edu

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By Jake Liang and Riva Tukachinsky

School of Communication, Chapman University

Correspondence: Yuhua (Jake) Liang, Department of Communication Studies, Chapman University, Doti Hall 206, One University Drive, Orange, CA 92866; E-mail: liang@chapman.edu

Abstract

This research applies narrative persuasion theory to participatory websites. Specifically, the study examines the joint effect of online review structure (narrative/nonnarrative) and source attributes (expert/nonexpert) on attitude strength (attitude certainty and intensity). Results demonstrate that source attributes moderate the relationship between transportation and attitude intensity but not attitude certainty. These findings advance transportation theory by illuminating that readers glean source attributes on participatory websites, and these attributes modify transportation effects. The findings offer implications for participatory websites and design features that may facilitate or hinder readers in their quest to make decisions based on the reviews they read.

Keywords: Attitude Strength; Narrative Structure; Online Reviews; Participatory websites; Source Attributes

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User-generated reviews are readily available in a variety of contexts (e.g., Liang, 2015; Walther, Liang, Ganster, Wohn, & Emington, 2012). Consumers convey and receive evaluative information toward a target (e.g., product, service, medical facility), which ultimately can have implications for product sales (Floyd, Freling, Alhoquail, Cho, & Freling, 2014) and consumers' attitude (Walther et al., 2012). Multiple variables play a role in this process. One such prime factor involves user characteristics (e.g., profile information) that can elicit consumers' trust (Metzger, Flanagin, & Medders, 2010; Walther & Jang, 2012). Another factor that warrants important consideration is the online review's written structure. Online reviews greatly vary in scope and style, with some reviews presenting a concise account of facts in a "bullet-point" format, while others provide the same information through rich, gripping, and personal narratives written from a first-person point of view.

This study advances Narrative Persuasion 2.0, a perspective that joins narrative persuasion theory (Green & Brock, 2000; Slater & Rouner, 2002) with participatory systems research (Walther & Jang, 2012). Specifically, this project examines the juxtaposition between review narrative structure (narrative vs. nonnarrative format) and writer characteristics (expert vs. nonexpert) in affecting readers' attitude strength. This approach expands the narrative persuasion theories by applying them to novel contexts (participatory websites) and outcomes (attitude strength). These questions are examined in the context of online reviews for a medical facility. This specific attitude-object involves an important health decision often influenced by reviews (Emmert, Meier, Pisch, & Sander, 2013). Moreover, it presents a situation in which media consumers ostensibly seek greater confidence in their attitude, and the expertise of the reviewer is likely to be of paramount importance.

Narrative Persuasion 2.0

Narratives constitute a fundamental form of communication. Although scholarly definitions vary (for review: Braddock & Dillard, 2016), narratives differ from nonnarratives in presenting connected events, characters within a given space and time, and conflict and problem resolution following a structure with an identifiable beginning and end. Online reviews can conceivably follow a narrative structure, building each character (e.g., nurse, doctor) and utilizing an identifiable narrative arch from an initiating event (e.g., disconcerting symptoms), subsequent events (check-in, diagnosis, etc.), to the event resolution (e.g., patient outcome). Nonnarratives lack such a narratively arched sequence of linked events and character development. Instead, they may present information in more listlike format or using generalized arguments.

Ample research found that compared to nonnarratives, narratives enhance information retention and persuasion (meta-analysis: Braddock & Dillard, 2016). A primary explanation of this persuasiveness lies in the narratives' ability to suspend the readers' sense of reality and immerse (or "transport") in the story world (Green & Brock, 2000). Transportation studies (Tukachinsky & Tokunaga, 2013; van Lear, De Ruyter, Visconti, & Wetzels, 2014) and most online persuasion research (King, Racherla, & Bush, 2014) frequently examine the effect of messages on evaluations of the attitude-object, or namely, how favorably or unfavorably one feels or thinks about an object (Fazio, 1995). However, the strength of the association between evaluative attitude (positive or negative) and the attitude-object determines the attitude persistence, change resistance, and likelihood to act on the evaluative attitude (Krosnick, Boninger, Chuang, Berent, & Carnot, 1993). This research is innovative in examining the effect

of transportation on two core dimensions of attitude strength: Attitude certainty (i.e., attitude confidence) and attitude intensity (i.e., emotional reaction provoked by the attitude-object). In the transportation process, media consumers engage in a mental simulation of the narrative world and create a vivid mental image of the narrative-based reality (Tukachinsky & Tokunaga, 2013). Conceivably, this experience incorporates the upheld attitude (whether positive or negative) more firmly into the media consumer's mental model of the attitude-object, thus resulting in greater attitude strength. Moreover, transportation hinders audience members' critical ability and circumvents counterarguing with the message (Slater & Rouner, 2002). Following this logic, transportation will also make audiences more confident in their attitude and less ambivalent about the attitude-object.

Taken together, online reviews written in a narrative format are expected to elicit greater transportation and thus are more likely to produce meta-attitudinal effects. Specifically, the first two hypotheses advance that transportation mediates the positive effect of narrative (vs. nonnarrative) format on both H1 attitude certainty and H2 attitude intensity.

Source Attributes

The juxtaposition between the review content and the reviewer's profile information can moderate narrative transportation effects in ways that may be unique to this media context. First, the source on participatory websites doubles as the main character in the review. Thus, the readers' instant impression of the source affects subsequent message processing (Walther et al., 2012). Second, unlike reading fiction, source credibility in online reviews is especially salient (Metzger et al., 2010) as readers glean cues to authenticate or warrant the source (Walther, Van der Heide, Hamel, & Shulman, 2009). Since fidelity of presumably true narratives is crucial for

transportation (Apple & Malečkar, 2012), source cues gleaned from the reviewer profile can moderate the effect of narrative transportation.

Specifically, source cues of expertise serve as an important cognitive heuristic. Consumers are more readily persuaded when endorsements are made by individuals with expertise in a relevant domain (Till & Busler, 2000). Such expertise often relates to the frequency and regularity of the reviewer obtaining the services reviewed (Mackiewicz, 2010). However, expertise also differentiates an individual reviewer from an average media consumer. Thus, expertise may alternatively undermine the review's effectiveness (Racherla & Friske, 2012). Indeed, some studies suggest that individuals may prefer peer reviews over expert reviews (Smith, Menon, & Sivakumar, 2005). This preference can be, at least in part, due to social identification with the nonexpert peer (Walther, DeAndrea, Kim, & Anthony, 2010). Taken together, source expertise cues embedded in profile information are likely processed heuristically prior to careful reading of the review, which may attenuate the effect of narrative transportation hypothesized in H1 and H2. Past research suggests that expertise can enhance transportation and persuasion, but expertise can also distance the readers from the reviewer. Given these possibilities, the following research questions are posed: Do source expertise cues moderate the effect of transportation into narrative reviews on RQ1 attitude certainty and RQ2 intensity?

Method

Study Overview

In a 2 (structure: narrative/nonnarrative) x 2 (source: expert/nonexpert) lab experiment, participants were first randomly assigned to read one of four versions of an online review. Then participants responded to measures of transportation and attitude strength.

Participants

A total of 114 (81% women) undergraduate students from a Southwestern university participated in the study for course credit. Most participant were White (n = 79); the rest were Latino (n = 11), Asian Americans (n = 10), African Americans (n = 3), or other/mixed ethnicity (n = 7). Four individuals did not report their ethnicity. Age ranged between 18 and 25 years (M = 19.54, SD = 1.51).

Independent Variables

The experimental review described a visit to an urgent care facility. The study focused on review processing and attitude intensity; possible confounding valence cues (e.g., star ratings) were omitted to lessen respondent bias to review valence. Accordingly, the review text incorporated both positive and negative aspects of the facility.

Narrative manipulation

Past research examined the effects of narratives versus nonnarratives broadly defined, rather than compared between specific narrative structures (e.g., van Lear et al., 2014). Thus, experimental material followed a suspense disclosure structure— one of the most common and engaging narrative structures (Brewer, 1996)—that the researchers identified in actual narrative reviews on Yelp.com. The initiating event involves the reviewer experiencing first symptoms, following a rush to the medical facility, checking in and waiting to be seen, an unpleasant interaction with a nurse, diagnosis by the doctor, and concluding with the resolution of receiving treatment shown as effective. The nonnarrative condition contained the same information broken down into subcategories (e.g., wait time, reason for visit) without temporal/sequenced links.

Cues of perceived expertise and manipulation

This manipulation followed results from pilot study data. An offset sample of students (N = 47) were presented with either a parent or a college student Yelp.com profile, and they then evaluated their knowledge of medical facilities. These social groups related to the experience and regularity of using a medical facility, which is a typical source of perceived expertise in online reviews (Mackiewicz, 2010). As expected, parents of young children were considered as heavier users of health services (compared to college students); students in the participants' institution regarded parents as significantly more knowledgeable (M = 3.13; SD = 1.14) than other students (M = 4.21; SD = 1.56), t(45) = 2.70, p = .01, d = .79. The reviewer's icon and username induced source attributes. Low perceived expertise condition contained a corresponding university mascot, and the writer username was "sophomore." High perceived expertise condition employed username "Family33" with a baby fist gripping an adult's finger.

Mediator and Outcome Variables

All variables utilized 7-point scales. Measures were averaged and coded with higher scores representing stronger transportation, attitude certainty, and attitude intensity.

Transportation. Six items were adopted from Green and Brock (2000), such as: "I was mentally involved in the review while reading it" (α = .85, M = 4.45, SD = 1.48).

Attitude certainty. Participants indicated how certain they felt about the medical facility using five semantic differentials (e.g., uncertain–certain) (α = .87, M = 4.20, SD = 1.15).

Attitude intensity. Participants reported their feeling toward the medical facility using four semantic differential items (e.g., weak–strong) (α = .91, M = 3.73, SD = 1.15).

Analyses

Hayes's PROCESS models for SPSS examined whether transportation partially mediated the effect of narrative condition on attitude certainty and intensity (Hayes, 2013). The

conceptual model posited that narrative structure affected transportation, which subsequently affected attitude strength (Hayes's Model 4). For the research questions, a moderated mediation model was tested (Hayes's Model 59) introducing the source (ingroup vs. expert) as a moderator of the direct effect of narrative condition, along with each mediation links.

Results

Mediation Models

Table 1 summarizes the analyses. First, the effect of the manipulation on the mediator was examined (column 1). As predicted, narrative condition significantly enhanced transportation experience. Transportation, in turn, significantly increased attitude certainty and intensity (columns 2 and 3). However, while the effect of narrative condition was only partially mediated for attitude certainty (direct: B = .60, SE = .21, p < .01, CI[.17, 1.02], indirect: B = .09, SE = .07, CI[.01, .32]), the effect was fully mediated for attitude intensity (direct: B = .30, SE = .22, p = .17, CI[−.13, .73], indirect: B = .15, SE = .08, CI[.04, .38]). Therefore, the data were partially consistent with H1. The fully mediated model for attitude intensity was consistent with H2.

Moderated Mediation Models

To address RQ1 and RQ2, source condition (expert/in-group) was introduced into the model as a possible moderator. Source condition did not have a main (B = −1.40, SE = 1.83, p = .45, CI[−5.04, 2.25]) or an interactive effect (B = −1.15, SE = 2.57, p = .66, CI[−6.23, 3.94]) on transportation. Similarly, source did not have a direct effect (B = .30, SE = .86, p = .73, CI[−1.41, 2.02]) on attitude certainty. When predicting attitude certainty, source did not interact with narrative condition (B = −.63, SE = .43, p = .15, CI[−1.48, .23]) or with transportation (B = .00, SE = .03, p = .89, CI[−.06, .07]).

For attitude intensity, an interesting pattern emerged. While the effect of narrative condition was not moderated by source (B = –.31, SE = .42, p = .45, CI[−1.14, .53]), source significantly moderated the effect of transportation on attitude intensity (B = –.08, SE = .03, p = .01, CI[–.14, –.02]). Specifically, decomposition of the interaction revealed that transportation is significantly associated with attitude intensity only when the message was attributed to an expert source (B = .36, SE = .19, CI[.09, .85]), not when the source was an ingroup member (B = .04, SE = .04, CI[–.02, .27]). The results rendered a moderated mediation, wherein the effect of narrative condition through transportation varies by source (B = –.32, SE = .20, CI[–.80, –.03]).

Discussion

The results showed that a narrative format had a greater impact on readers' attitude strength toward the medical facility compared to non-narratives. This effect was attributed to transportation into the review narrative but only when the source of the review was an expert rather than another an in-group member. Source cues did not have any direct or interactive effects on attitude certainty. However, source moderated the effect of transportation on attitude intensity. These findings are consistent with the differences between attitude certainty and intensity. Attitude certainty encompasses a rational aspect, whereas attitude intensity involves the emotional facet of attitudes. Since the narrative reviews provide the same substantive information as the nonnarrative reviews, it is sensible that source did not influence the cognitive component (i.e., attitude certainty). Conversely, narrative transportation involves affect-based persuasion, which aligns with attitude intensity.

Decomposition of the moderated mediation model revealed that transportation only increased attitude intensity when the review was written by an expert source. This finding is particularly interesting in several ways. From a transportation theoretical perspective, any

messages regardless of source should affect the reader due to suspension of reality. However, when individuals are alerted to an intentionally falsified narrative, their processing of the story becomes critical. For narratives in the online context, in particular, readers encountering an expert review may conceivably hinder their skepticism. This process reduces counterarguing and ultimately allows the transportation experience to affect attitude strength. Second, the findings are insightful for the contents on participatory websites, suggesting that encouraging users to employ narrative structure could enhance the effectiveness of the reviews.

This research offers several theoretical implications. First, the results extend the narrative persuasion research (Braddock & Dillard, 2016) to a new context (participatory websites). Narrative persuasion 2.0 follows the logic of transportation theory, but source cues germane to participatory websites moderate the transportation dynamic. To further explicate the uniqueness of source expertise as a moderator, a direct comparison between online review narratives and traditional media is needed. Second, examining attitude intensity extends theory by showing that transportation affects not only evaluation of beliefs but also affects meta-cognitive constructs such as attitude strength. This finding offers possible mechanisms underlying the effects of narratives and emotions on attitude persistence (van Laer et al., 2014).

Study Limitations and Future Directions

Additional research can further examine how individuals may manage profile-based cues and user-generated content across multiple messages from various sources. Although the causal relationships are logically consistent with narrative persuasion theory, the cross-sectional nature of this study design suggests that future work could focus on addressing the causal relationships proposed. Work may also focus on the effect of narrative transportation across various attitude-objects, particularly in a context in which expertise may play a more minor role. Conceivably,

while expertise is critical to processing information about medical facilities, group identity could be more important in leisure decisions (e.g., restaurant choice). Readers may also become motivated to have stronger attitudes toward medical facilities than in less consequential situations. Indeed, Tukachinsky and Tokunaga (2013) found that involvement had a greater effect in health-related contexts compared to other domains. This study only examined the effect of a single narrative (vs. nonnarrative) structure. Future studies may build on this research by examining more nuanced manipulations of messages. Media consumers can, to an extent, transport even in certain nonnarrative messages (Phillip & McQuarrie, 2010); thus, it is also important to compare between the effect of different disclosure narrative structures (e.g., surprise). Finally, this study specifically focused on attitudes related to the attitude-object. It would be interesting to further examine the effect of narrative structure and source cues on the perception of the review and the reviewer themselves. This more complex approach to interrelated constructs could consider, for example, the possibility that source cues can prompt parasocial (friendship-like) attachment to the review author, which in turn could have effects on persuasive outcomes. Although parasocial-relationships are not a very strong predictor of media effects overall (Tukachinsky & Tokunaga, 2013), the effect may be more pronounced in participatory online contexts (e.g., Facebook), where media consumers interact with the product reviewers.

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Table 1

Mediation Analysis Regarding Transportation, Attitude Certainty, and Attitude Intensity

	Effect on transportation		Effect on certainty		Effect on intensity	
	B(SE)	CI	B(SE)	CI	B(SE)	CI
Constant	25.77 (3.10)	19.63, 31.90	3.55 (.64)	2.28, 4.82	2.84 (.65)	1.54, 4.12
Narrative structure	3.22 (1.29)	.66, 5.78	.60 (.21)	.17, 1.02	.30 (.22)	−.13, .73
Sex	−.40 (1.61)	−3.60, 2.80	−.26 (.26)	−.78, .26	−.31 (.26)	−.83, .21
Transportation	—	—	.03 (.01)	.00, .06	.05 (.02)	.02, .08
R^2	.06		.14		.13	
F(df)	3.22(2,107)		5.58(3,106)		5.31(3,106)	
p	.04		.001		.002	