

Persuasive brand messages in social media: A mental imagery processing perspective

Sejin Ha^a, Ran Huang^b and Jee-Sun Park^{c*}

^aDepartment of Retail, Hospitality, and Tourism Management, University of Tennessee, Knoxville, TN, USA; ^bSchool of Art, Architecture + Design, Indiana University, Bloomington, IN, USA; ^cDepartment of Fashion Industry, Incheon National University, Incheon, Korea

*Corresponding author: Jee-Sun Park

Assistant Professor

Department of Fashion Industry, Incheon National university, Incheon, Korea

119 Academy-ro Yeonsu-gu

Incheon, South Korea

Phone: +82-32-835-8259

E-mail: jpark@inu.ac.kr

<http://orcid.org/0000-0002-6021-2836>

Persuasive brand messages in social media: A mental imagery processing perspective

This research examines how mental imagery affects the persuasive effectiveness of a brand's SNS (Social Networking Service) and whether transportability moderates such processing in SNS. Study 1 investigates the model with fashion retail brands' SNS communications, and Study 2 replicates the design of Study 1 in the context of luxury hotel brands' SNS for verification purpose. A web-based survey method in which participants evaluated their interaction with a brand's SNS communication was used. Results show that two dimensions of mental imagery, quality and elaboration, facilitate favorable attitude toward a brand's SNS advertising directly and indirectly via positive affect. Furthermore, the effect of transportability as a moderator was shown to be inconsistent between the studies. This research highlights key elements to assist in the design of SNS messages/content and the importance of taking users' characteristics into account for effective brand communication in SNS.

Keywords: social media; mental imagery; transportability, Instagram

1. Introduction

Content management on social networking services (SNSs) is becoming increasingly crucial for retail marketing, especially on photo- and video-sharing SNSs such as Instagram and Pinterest, where content delivery relies on visual features. Results of recent research reveal that 74.7% of mobile users access social media to research products and services, and nearly 594 million users that represent 26.4% of social network users follow brands on Instagram and engage with brands using its unique platform features including Instagram stories and live video (Cohen, 2017). In response, marketers have shifted their attention to this visually-oriented social media platform. For example, a survey conducted with B2C company marketers in 2017 reports that 96% of brand marketers prioritize social media posts for content marketing purposes (Content Marketing Institute), with rapid growth in

use of Instagram in particular that, by the end of 2017, 70.7% US companies were using Instagram for marketing activities, rising from 32.3% in 2015 (eMarketer.com, 2015a). By return, this platform made ad revenues of \$4.1 billion in 2017, with a rapid growth anticipated to \$10.87 billion by 2019 (eMarketer.com, 2018). Fashion retailers are particularly excited about Instagram; over 95% of U.S. fashion brands use the platform for brand communication (eMarketer.com, 2015b). In fact, marketers view Instagram as the most powerful SNS that is more than 38% of the size of Facebook in 2017 (eMarketer.com, 2018); as a result, brands are getting three times more consumer engagement on Instagram than Facebook (Holmes, 2018).

Although SNSs are receiving significant attention from marketers, it is unclear whether certain aspects of content presentation cause consumers' brand experiences on SNSs to be more memorable and engaging than others. Making consumers feel as though they are participating in an event or experiencing a product featured in a brand's post can be an effective persuasion tool in social media marketing communications. Yet, research on SNS communication from an imagery processing perspective remains scant; to our knowledge, researchers have not yet empirically investigated consumers' imagery processing in the SNS context. To address this critical void in the literature, our first aim is to empirically explore how mental imagery is activated via a retailer's SNS account and influences consumer affect and attitudes toward it. Often referred to as seeing with the mind's eye (MacInnis and Price, 1987), mental imagery is considered a quasi-perceptual experience and defined as the extent to which people feel as though they are having experiences in a given environment without external stimuli (Argyriou, 2012). Indeed, while viewing a photo of a person holding a cocktail and sitting on a beach with a dog captioned "We'll be here all weekend," people can easily imagine themselves having the

experience.

In addition to the characteristics of SNS communication, we posit that individual characteristics may play a role in consumer imagery processing in SNS. Previous research in the marketing literature has shown that individual differences are critical in information processing and persuasion across various domains such as online stores (Argyriou, 2012; Khrouf and Frikha, 2016; Schlosser, 2003; Yoo and Kim, 2014), print (Burns et al., 1993; Putrevu et al., 2004), radio (Bone and Ellen, 1992) and mobile advertisements (Gavilan et al., 2014). In the mental imagery literature, research attention so far has been paid to four individual characteristics: imagery abilities (Bone and Ellen, 1992; Petrova and Cialdini, 2005; Schlosser, 2003; Weibel et al., 2011), processing style (Burns et al., 1993; Yoo and Kim, 2014), user involvement (Ching et al., 2013; Khrouf and Frikha, 2016) and intuition (Argyriou, 2012). We extend these efforts by considering an under-investigated individual trait which is transportability, referring to one's tendency to visually simulate a story (Appel and Richter, 2010). Researchers have conceptualized that higher transportability is associated with stronger transportation and thus stronger persuasive impact of messages on affective, cognitive and attitudinal reactions (van Laer et al., 2014). However, the role of transportability has not yet been tested empirically in an SNS setting. Our second aim is to investigate this possibility by exploring how individual differences in transportability affect how mental imagery occurs in the SNS context.

Thus, this study has two primary objectives. The first is to examine how mental imagery affects the persuasive effectiveness of a brand's SNS in terms of positive consumer affect and attitudes toward the account. The second is to test whether transportability, an individual trait, moderates the relationship between mental imagery and persuasive effectiveness. By doing so, we are able to enrich current knowledge regarding

consumer experiences of mental imagery within conventional media, and examine the mental imagery effect in emerging interactive digital media—namely, SNS. The results have the potential to provide retailers with a clearer understanding of user experiences in the digital media context, which can help improve consumer engagement strategies.

2. Conceptual background and hypothesis development

2.1. Mental imagery

Stimulating consumers to imagine themselves being present in a mediated environment and experiencing a product or service can be powerful. The perception of being present in an imagined situation in the absence of appropriate direct contact is referred to as mental imagery (Argyriou, 2012). It is a quasi-perceptual process in which concrete sensory representations of ideas, feelings and memories are activated from working memory (MacInnis and Price, 1987). While imagery processing differs from discursive processing, which involves abstract, symbolic and language-type information, the two are not mutually exclusive, as both fall on an elaboration continuum. In imagery processing, the elaboration continuum ranges from simple verbal labels at the low end to fantasies/visual problem solving at the high end, whereas in discursive processing, the elaboration continuum ranges from a simple verbal label at the low end to counterarguments and attributions at the high end (MacInnis and Price, 1987). A stimulus can trigger both processes to varying degrees (MacInnis and Price, 1987).

Mental imagery is evoked in various ways. Babin et al. (1992) suggested three traditional imagery-evoking strategies: pictures, words, and instructions. First, concrete pictures generate mental imagery better than non-concrete pictures (Babin and Burns, 1997; Yoo and Kim, 2014). The subjects of pictures can also interact with consumers' self-

perceptions (e.g., self-esteem) to evoke mental imagery and influence attitudes (Aydinoğlu and Cian, 2014). Second, concrete words (i.e., textual messages) evoke mental imagery better than abstract words. The effect of these tangible visual messages on mental imagery has been proven widely in education, psychology, advertising and consumer behavior research (Aydinoğlu and Cian, 2014; Babin and Burns, 1997; Childers and Houston, 1984; Gavilan et al., 2014; Paivio, 1969; Yoo and Kim, 2014). Finally, instructions to imagine something can stimulate mental imagery (Babin and Burns, 1997). Print advertisement copy that guides consumers to use their imaginations to facilitate vivid and elaborate visual imagery influences their attitudes toward the advertised product/service (Babin and Burns, 1997).

More recently, as technology has created new interactive experiences, new kinds of imagery-evoking tools have emerged. Examples include but are not limited to digital games, mobile ads (e.g., multimedia messaging service), virtual models that enable online shoppers to “try on” products, and three-dimensional product/store visualization. Unsurprisingly, researchers have recognized how these new tools affect mental imagery and the persuasive effectiveness of communicated messages. Interactive multimedia experiences influence consumer behaviors by providing information on product/service attributes (Huang et al., 2009; Lee, 2012; Yoo and Kim, 2014), and facilitating attitude accessibility, confidence (Lee, 2012), cognitive elaboration and mental imagery (Schlosser, 2003). Thus, regardless of the message source, mental imagery, if it occurs, helps improve various outcomes, including attention (Feiereisen et al., 2008) and memory (Mikhailitchenko et al., 2009), as well as cognitive (trust, ad/brand recall, ad/brand attitude) (Aydinoğlu and Cian, 2014; Babin and Burns, 1997; Feiereisen et al., 2008; Gavilan et al., 2014; Mikhailitchenko et al., 2009), affective (positive feelings) (Yoo and Kim, 2014) and

behavioral responses (purchase intentions) (Argyriou, 2012; Gavilan et al., 2014; Khrouf and Frikha, 2016; Yoo and Kim, 2014).

In the mental imagery literature, while it is commonly understood that mental imagery is multi-dimensional (Babin and Burns, 1998; Khrouf and Frikha, 2016; Miller et al., 2000; Rodríguez-Ardura and Martínez-López, 2014; Walters et al., 2007), inconsistencies remain regarding what the specific dimensions are. Initially, Bone and Ellen (1992) conceptualized mental imagery as having two dimensions: vividness and quantity/ease. Babin and Burns (1998) subsequently established a three-dimensional model of mental imagery consisting of vividness, quantity and elaboration. Vividness is the clarity with which a consumer evokes an image (Bone and Ellen, 1992), capturing the qualitative facet of mental imagery. Quantity refers to the number of images that a consumer generates from a stimulus while processing information (Bone and Ellen, 1992). Elaboration is “the activation of stored information in the production of mental images beyond what is provided by the stimuli” (Babin and Burns, 1998, p. 266). Subsequent research proved that quantity is considered a part of elaboration, while vividness and elaboration are distinctive dimensions of mental imagery (e.g., Kamleitner and Feuchtl, 2015). In research exploring mental imagery specific to print advertising of text and picture stimuli, Walters, Sparks and Herington (2007, 2012) identified two key dimensions which are elaboration and quality of mental imagery. Elaboration represents the degree to which one develops images in his/her mental after viewing an object (e.g., advertisement), and quality of mental imagery captures vividness, intensity, and clarity of the images.

Building on these studies, researchers have attempted to empirically identify conditions that facilitate mental imagery (e.g., concreteness of messages, complexity of messages, instructions to imagine) across different contexts (e.g., print advertising, mobile

advertising, online shopping). In doing so, some researchers have regarded mental imagery as a single factor (e.g., Aydinoğlu and Cian, 2014; Lee and Gretzel, 2012), while others have selectively chosen dimensions deemed appropriate for the context of interest (e.g., Argyriou, 2012; Miller and Marks, 1997; Tiggemann and Kemps, 2005; Weibel et al., 2011), yielding what likely are only partial explanations for induced mental imagery. There are two additional noteworthy points in the literature. First, considerable evidence has been found related to quality or vividness, which is thus considered to be most representative of mental imagery. Second, a comprehensive set of mental imagery dimensions has seldom been taken into account. As a result, researchers may have failed to capture all aspects of mental imagery in previous efforts.

Since brands simultaneously utilize a variety of visual or realistic computer-generated cues (e.g., photos, video clips with background sound) in SNS advertising and communication messages, it is possible that various aspects of mental imagery may be activated, and thus influence cognitive and affective processes and subsequent decision making differently. In examining the mental imagery process that occurs when a consumer engages with a brand's SNS account, we focus on two dimensions of mental imagery: elaboration and quality (Walters et al., 2007, 2012; Yoo and Kim 2014). By selecting these dimensions, we embrace not only imagery related to the consumption simulation situation (i.e., elaboration), but also perceptions unique to the interface domain (i.e., quality). Past research on technology-mediated information processing offered support for this dimensionality. Khrouf and Frikha (2016) examined web-surfers' conative reactions and identified quality (vividness/clarity) and valence as key mental imagery dimensions. Yoo and Kim (2014) indicated that elaboration (visionary and imaginary activation of mental images) and quality (clarity, intensity and sharpness of mental images) are two key factors

that influence consumers' mental imagery in response to online product presentations. This two-dimensional model thus appears to provide a valid and parsimonious foundation for this study.

2.2. Mental imagery and persuasion

Mental imagery constitutes a key mechanism in imagery persuasion. Ample evidence confirms that the stronger the mental imagery, the more beliefs, attitudes, and behavioral intentions are consonant with the imagery evoked by the stimuli (Babin and Burns, 1997; Blondé and Girandola, 2016; MacInnis and Price, 1987; Schlosser, 2003; Yoo and Kim, 2014). For instance, instructions to use one's imagination when processing product information (Keller and Block, 1997) or presenting imagery appeals in an advertisement (Babin and Burns, 1997; Bone and Ellen, 1992) are likely to lead to more favorable product evaluations and stronger purchase intentions. In mobile advertising, mental imagery boosted by multimedia messaging service (vs. short message service) and transformational (vs. informational) mobile ads could increase imagery vividness and elaboration, which in turn enhances purchase intentions. Further, imagery quality and elaboration have been found to mediate the effect of mobile delivery mechanism and content type on ad trust, while imagery quantity has no effect on purchase intentions (Gavilan et al., 2014).

As for the persuasive effect of brand SNS communication, an ultimate outcome variable of interest in this research is attitudes toward a brand's SNS account. Brand SNS attitude is defined as one's overall evaluation of the brand's SNS communication capturing one's cognitive response. Given ample evidence supporting the effect of mental imagery on consumer behavior, it is possible that such effects occur in the brand SNS context. That is, the more one can think seamlessly about consumption situations depicted by various SNS

messages, the higher likelihood of favorable attitudes toward brand SNS communication.

Likewise, since message features activate mental simulation of high quality, more favorable attitudes toward a brand's communication strategy are likely.

H1. Mental imagery elicited by a retail brand's SNS communication (a: quality, b: elaboration) increases brand SNS attitude.

Given the persuasiveness of mental imagery, an important question relates to the processes underlying such effects. Petrova and Cialdini (2008) outlined a list of potential mediators in imagery processing, including affect, consideration of argument, recall, transportation (one's immersion in a story event), reduced counterarguing, imagery accessibility (one's subjective experiences of fluency in information processing) and imagination-behavior links (automatic activation of a behavior from the mere act of thinking). Among these, many approve affect as a significant mediator across diverse imagery processing environments in psychology (Holmes and Mathews, 2010), advertising (Miller and Marks, 1997; Oliver et al., 1993), information technology (Rodríguez-Ardura and Martínez-López, 2014) and marketing (Overmars and Poels, 2015; Yoo and Kim, 2014). In a study examining mental imagery via radio advertising, Miller and Marks (1997) demonstrated that in response to imagery-evoking strategies (i.e., sound effects, vivid verbal messages, and instructions), consumers engage in mental imagery processing which develops ad-evoked feelings and attitudes. Likewise, the mediating role of positive emotion in mental imagery processing has been confirmed in the association between online product presentation and behavioral intentions in the online retailing context (Yoo and Kim, 2014). This study focuses on positive affect to capture one's emotional responses to the images viewed in a brand's SNS. Accordingly, we predict that positive affect mediates consumers'

imagery processing in the brand SNS context. That is, mental imagery developed around rich components of visual and text messages (photos, videos, background music, hash tags, feedbacks) in brand SNS communication may elicit positive emotions, which lead to favorable attitudes.

H2. Positive affect mediates the relationship between mental imagery (a: quality, b: elaboration) and brand SNS attitude.

2.3. Individual differences in imagery processing

People have different capabilities and propensities to engage in mental imagery processing (MacInnis and Price, 1987). If mental imagery explains the effect of consumers' processing of communication messages on subsequent evaluations, then an individual characteristic like a dispositional inclination to be immersed/engaged in imagery processing should moderate this effect. However, somewhat surprisingly, only a few have empirically investigated how individual characteristics affect mental imagery. To date, primary individual traits researchers have found to affect imagery processing include imagery abilities (Petrova and Cialdini, 2005; Schlosser, 2003; Weibel et al., 2011), user involvement (Ching et al., 2013) and processing style (visualizer vs. verbalizer) (Yoo and Kim, 2014). This study examines transportability, defined as one's cognitive propensity to become immersed in stories (Green and Brock, 2000). Higher transportability is related to empathic ability (Davis, 1983) and image-producing capacity (Betts, 1909) and thus induces transportation easily (Mazzocco and Green, 2011). In research on politicians' Twitter messages, Lee and Shin (2014) confirmed transportability as a moderator proving that reading a candidate's tweet history (vs. newspaper interviews) heightens a reader's

virtual experience of the candidate's presence (i.e., social presence) when the individual has a higher level of transportability. The finding implies that when communication messages function as a story, transportability may differentiate the extent of experiential responses. On a brand's SNS page, various cues (e.g., photos, videos, feedback) may appear more like a narrative or a story that the brand wants to convey to potential customers. In such a case, an individual's proclivity to become deeply immersed in the story and identify with the narrative situation would be influential in shaping subsequent responses. We therefore predict that as an individual's ability to be transported increases, the influence that mental imagery exerts on affect becomes intense, and as a result, persuasive effects are strengthened.

H3. As transportability increases, the effects of mental imagery (a: quality, b: elaboration) on brand SNS attitude via positive affect strengthen.

Figure 1 illustrates our conceptual model and hypotheses.

[Figure 1 about here]

3. Method

The proposed hypotheses were tested in two studies. Both studies employed a web-based survey method and differ by the context of mental imagery model being tested: fashion retail brands' SNS communication (Study 1) and luxury hotels' SNS communications (Study 2). Instagram was chosen as a focal SNS platform because it utilizes multiple image-oriented features (e.g., photos, videos, hash tags, feedback) more than other SNSs. Two existing brands were selected from fashion retail brands (J. Crew with 1.5 million followers and Gap with 1.3 million followers) in Study 1 and hotel service brands (Four

Seasons Hotels and Resorts with 621K followers and Ritz Carlton with 365K followers) in Study 2.

3.1. Procedure

We recruited online panel participants through Amazon's MTurk platform. To be eligible to participate, respondents had to be current or potential SNS users living in the United States with MTurk approval ratings of at least 95%. Using random sampling, we aimed to improve generalization of our findings to the population of interest, potential and current users of Instagram in the United States. Psychologists and social scientists confirmed MTurk to be viable for data collection (Buhrmester et al., 2011; Mason and Suri, 2012). The survey in Qualtrics was linked to the MTurk site and collected data over the course of 1 week. Each participant received \$0.50 for completing the survey.

When participants launched the survey, they were greeted and asked to fill out a consent form and a short questionnaire of transportability, capturing an individual's dispositional tendency to get immersed into narrative worlds. Then, they were directed to a randomly assigned Instagram account and were told to explore the account as much as they liked (for at least 3 minutes). Afterwards, they completed the questionnaire, which required them to provide demographic information and respond to items related to their experiences with and evaluations of the SNS account: perceptions of mental imagery dimensions, positive affect and attitude toward the brand's SNS account.

3.2. Measures

The proposed model includes two exogenous variables related to mental imagery (quality and elaboration), a mediator (positive affect), an outcome variable (brand SNS attitude),

and a moderator (transportability). We assessed quality of mental imagery using five 7-point semantic differential items adopted from Walters et al. (2007) (e.g., “Overall, the images that came to mind while I was looking at contents were: dull – sharp”). We measured elaboration of mental imagery using 10 items from Walters et al. (2007) (e.g., “The mental images that came to mind formed a series of events in my mind in which I was a part of”) that were rated on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree). Positive affect was assessed with a set of eight feeling items (e.g., “While examining the Instagram account, I felt stimulated”) that were rated on a 7-point scale (1 = not well at all, 7 = extremely well) (Escalas, 2004). Attitudes toward the brand SNS account was collected using five 7-point semantic differential items (e.g., “unfavorable – favorable”) (Patrick et al., 2007). We assessed transportability using 17 items created by Dal Cin et al. (2004) that were rated on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree): (1) “I can easily envision the events in them,” (2) “I can easily lose myself in them,” (3) “I find it difficult to tune out activities around me,” (4) “I can easily envision myself in the events described in the visual content,” (5) “I get mentally involved in the visual content,” (6) “I get mentally involved in the visual content,” (7) “I can easily put images out of my mind after seeing visual materials,” (8) “I sometimes feel as if I am part of the story in a picture,” (9) “I can easily take the perspective of the character(s) in pictures,” (10) “I am often emotionally affected by the visual materials that I saw,” (11) “I have vivid images of the characters,” (11) “I find myself accepting events that I might have otherwise considered unrealistic,” (12) “I find myself thinking what the characters may think,” (13) “My mind often wanders,” (14) “I find myself feeling what the characters in the visual content may feel,” (15) “I find that events in the pictures are relevant to my everyday life,” (16) “I easily identify with characters in the visual materials,” (17) “I have vivid

images of the events in the visual content.” The use of a survey with self-report measures of perceptions of human-technology interaction (e.g., electronic, mobile commerce, SNS) has been validated in previous studies (e.g., Ching et al., 2013; June, 2014; Lin and Lu, 2015). We made slight adjustments to measurement items to fit the research context where necessary.

4. Study 1

4.1. Sample characteristics

Among the 375 responses gathered, we analyzed 328 usable responses after removing data with a significant number of missing responses, failing attention checks, or claiming experiences with similar surveys. The mean age of respondents was 36 with ages ranging from 18 to 70. The sample included large proportions of Whites (70.4%) and females (62.2%). The sample was fairly well-educated (38.4% with an undergraduate degree or above). We assessed non-response bias using an independent sample t-test. A comparison of major variables and demographics between early respondents and late respondents reveals no significant differences, providing no evidence of non-response bias (Armstrong and Overton, 1977).

Additionally, the extent of common method variance (CMV) was analyzed using Harman’s single-factor test. EFA with unrotated factor solution including all research variables showed that no concern with the common method bias existed as all factors emerged and the first factor explained less than 50.0% of the overall variance (44.6%). Hence, it was concluded that the CMV was not significantly biased the subsequent analyses in this study.

4.2. Data analyses

To test Hypotheses 1 and 2, a two-stage structural equation modeling (SEM) approach was conducted following Anderson and Gerbing (1988). First, confirmatory factor analysis (CFA) was conducted to test the quality of the measurement model. Second, SEM was performed to test the proposed hypotheses. Maximum likelihood estimation of the covariance matrix was applied (AMOS 23.0). To test Hypothesis 3 on the moderating effect of transportability, the SPSS PROCESS macro was applied (Hayes 2013).

4.3. Results

Results of a CFA with the original instrument show that the measurement model fits the data well: $\chi^2 = 762.65$, $df = 332$, $\chi^2/df = 2.30$, $p < .001$, CFI = .96, TLI = .96, IFI = .96, RMSEA = .06, SRMR = .04 (see Table 1). As shown in Tables 1 and 2, composite reliabilities of all scales are over .93, and the average variance extracted (AVE) statistics exceed the threshold level of .50. All items load on their corresponding constructs and are positive and significant ($t > 15.73$, $p < .001$), indicating convergent validity (Fornell and Larcker, 1981). In addition, the AVE of each construct is greater than the squared correlation coefficients between all possible pairs of constructs (see Table 2), providing evidence for discriminant validity (Fornell and Larcker, 1981). Therefore, we conclude that the proposed model has satisfactory construct validity.

[Tables 1 and 2 about here]

SEM was performed to test Hypotheses 1 and 2, which predict that mental imagery influences brand SNS attitude directly (H1) as well as indirectly via positive affect (H2). The results show acceptable fit indexes, indicating that the model reasonably represents the

data: $\chi^2 = 762.65$, $df = 332$, $\chi^2/df = 2.30$, $p < .001$, CFI = .96, TLI = .96, IFI = .96, RMSEA = .06, SRMR = .04. The model accounts for 73.6% and 61.9% of the variances in positive affect and brand SNS attitude, respectively. As presented in Table 3, the effect of quality on brand SNS attitude is significant but that of elaboration on brand SNS attitude is not significant rejecting H1b. Therefore, only H1a is supported.

[Table 3 about here]

Next, to test whether positive affect mediates the link between mental imagery (a: quality and b: elaboration) and brand SNS attitude, we employed the bootstrapping method in SEM. Results show that the two mental imagery dimensions positively influence brand SNS attitude via positive affect, providing support for Hypotheses 2a and 2b. Specifically, as shown in Table 4, positive affect partially mediates the effects of quality on brand SNS attitude, and fully mediates the relationship between elaboration and brand SNS attitude. Taken together, the results provide support for H2a and H2b.¹

[Table 4 about here]

To examine the moderation effects of transportability (H3) on imagery processing, we ran a series of conditional analyses using the SPSS PROCESS macro (Model 8, 5,000 bootstrap samples) (Hayes, 2013). In doing so, items for each construct were averaged in

¹ To verify the mediation effect, we also ran an SPSS PROCESS macro following Hayes (2013).

Quality of mental imagery predicts brand SNS attitude; both quality and elaboration of mental imagery predict positive affect; and positive affect predicts brand SNS attitude. When controlling positive affect, elaboration no longer predicts brand SNS attitude, but quality still predict brand SNS attitude. Thus, full mediation is supported for the effect of elaboration on brand SNS attitude, while partial mediation is supported for the effect of quality on brand SNS attitude.

order to create a single value for each variable. Conditional effects of imagery processing were tested at three levels of transportability—at the mean, and at one standard deviation (SD) above (+1SD) and below the mean (-1SD). Table 5 presents the regression models for the analyses and Table 6 presents the results of pick-a-point probing analyses.

First, H3a predicted that the direct and indirect effects of quality of mental imagery on brand SNS attitude through positive affect are conditional on transportability, with higher degrees of transportability being more influential than lower degrees. Results of the conditional analysis show overall significance for the model with positive affect as the outcome ($R^2 = .52$, $F(3,324) = 116.03$, $p < .001$) and that with brand SNS attitude as the outcome ($R^2 = .63$, $F(4,323) = 134.67$, $p < .001$). As predicted in H3a, we found a significant interaction between quality and transportability on positive affect ($b = .10$, $t = 2.31$, $p < .01$) as well as brand SNS attitude ($b = .16$, $t = 4.70$, $p < .001$). Probing the pick-a-point results revealed that the significant indirect and direct effects increase with greater transportability, supporting H3a. The results indicate that the direct and indirect effects of perceived quality on an individual's brand SNS attitude through positive affect becomes greater when the individual has greater transportability.

Next, H3b predicted that the direct and indirect effects of elaboration on brand SNS attitude through positive affect are conditional on transportability. Results show overall significance for the model with positive affect as the outcome ($R^2 = .63$, $F(3,324) = 184.70$, $p < .001$) and that with brand SNS attitude as the outcome ($R^2 = .56$, $F(4,323) = 103.44$, $p < .001$). The interaction term is significant only for the direct effect ($b = .08$, $t = 2.31$, $p < .05$). Thus, H3b is partially supported. Probing the moderation effect in Table 6 revealed a significant direct effect of elaboration on brand SNS attitude for consumers with high

(+1SD) and moderate (at the mean) transportability, but not for consumers with low transportability (-1SD).

[Tables 5 and 6 about here]

5. Study 2

The main goal of Study 2 was to replicate Study 1 in order to examine the extent of generalizability of the effects observed in Study 1 using a different medium, thereby extending the external validity of the results. While Study 1 investigated the mental imagery processing model with two fashion retail brands' Instagram accounts, we turned to service-oriented brands in Study 2. Two luxury hotel chains including Four Seasons Hotels and Ritz Carlton were used. The design of Study 1 was replicated.

A total of 204 usable responses were gathered from surveys via MTurk (male respondents = 57.8%, mean age = 33 years). The majority were Caucasian (72.1%) and almost half of the respondents reported having college-level education or above (46.1%). An independent sample *t*-test and Harman's single-factor test confirmed no concern with non-response bias and common method bias, respectively.

CFA with the original measurement model confirm the acceptable model fit to the data: $\chi^2 = 650.45$, $df = 335$, $\chi^2/df = 1.94$, $p < .001$, CFI = .95, TLI = .94, IFI = .95, RMSEA = .07, SRMR = .05 (see Table 1). Other model fit indices were also satisfactory including composite reliabilities, convergent validity, and discriminant validity. SEM analysis shows acceptable fit indexes, indicating that the model reasonably represents the data ($\chi^2 = 650.45$, $df = 335$, $\chi^2/df = 1.94$, CFI = .95, TLI = .94, IFI = .95, RMSEA = .07, SRMR = .05). The model accounts for 58.1% and 55.0% of the variances in positive affect and brand SNS attitude, respectively.

The results show overall support for the mental imagery processing model. First, both quality and elaboration of mental imagery have significant impact on brand SNS attitude. H1a and H1b are thus supported (Table 3). Furthermore, support for Hypotheses 2a and 2b is again found in Study 2 that positive affect mediates the effects of the two mental imagery dimensions on brand SNS attitude. Specifically, consistent with Study 1, positive affect partially mediates the effect of quality on brand SNS attitude, while fully mediating that of elaboration on brand SNS attitude (Table 4). On the other hand, in terms of the moderating role of transportability, analyses reveal that neither the interactive effects between quality and transportability on positive affect ($b = 0.06, t = 0.95, p = 0.34$) and on attitude ($b = 0.02, t = 0.51, p = 0.61$) nor those between elaboration and transportability on positive affect ($b = 0.06, t = 1.15, p = 0.25$) and on attitude ($b = 0.03, t = 0.76, p = 0.45$) was significant, suggesting that transportability does not moderate the imagery processing model in the context of luxury hotel brand's Instagram communication. This result is different from Study 1, failing to support H3a and H3b (Table 5).

6. Discussion

The purpose of this research was to understand the persuasive effectiveness of a brand's SNS from a mental imagery processing perspective and to examine transportability as a moderator of persuasion effects. In two studies, we showed that quality and elaboration – two mental imagery factors – facilitate favorable attitudes toward a brand's SNS advertising directly as well as indirectly via positive affect. Study 1 demonstrated the phenomenon in fashion retail brands' SNS advertising settings. It established that quality of mental imagery enhances positive feeling about interaction with a brand's communication in its SNS which in turn promotes attitude toward the brand's SNS advertising, while also

helping to increase brand SNS attitude directly. Elaboration of mental imagery, on the other hand, does not have a direct impact on brand SNS attitude, but it rather increases brand SNS attitude by eliciting positive affect. Study 2 replicated and confirmed these findings in the context of luxury hotel brands' SNS communication. In addition to these results, Study 2 showed a significant impact of elaboration of mental imagery on brand SNS attitude. Taken together, the findings indicate that the model of mental imagery processing can explain consumer reviews of and experiences with messages that brands posts on their SNS accounts, especially in photo- and video-reliant SNS mediums. This finding extends the mental imagery literature by supporting the two-dimensionality model of mental imagery (Walter et al., 2007, 2014) and substantiating the model in an emerging context of consumer-brand communication.

Two studies showed different results regarding the moderating role of transportability in the imagery model. Study 1 found that transportability moderates the effects of quality and elaboration on brand SNS attitude, consistent with our prediction. Specifically, the direct and indirect effects of quality on brand SNS attitude via positive affect become stronger with increased transportability. Also, the direct effect of elaboration on brand SNS attitude becomes stronger as transportability increases. However, we did not see the same effects in Study 2 reporting no moderation by transportability within luxury hotel brands' SNS contexts. Such inconsistency may be due to differences in accessibility on consumption between luxury and mass-market brands; when viewing SNS ads by luxury brands, limited accessibility in consumption may hinder activation of one's ability to be immersed into the imagery featured in SNS posts compared with when interacting with SNS messages by mass-market brands with easy and frequent access. With this situational factor, we invite more research into the moderating power of transportability and boundary

conditions with a focus on brand types or industry types. It is also worthy of note that, our estimates of the direct and indirect effects (Table 5) provide directional support for the potential moderating effect of transportability, warranting further in-depth investigation into transportability as a moderator.

7. Conclusions

This study has important implications for the social media and advertising literature. To the best of our knowledge, we are the first to explore how consumers experience messages on a brand's SNS from the mental imagery perspective. Focusing specifically on Instagram as an imagery-oriented SNS, we identified that quality and elaboration are core dimensions of mental imagery in the context of brand SNS (i.e., Instagram), providing empirical support for the two-dimensionality of mental imagery (e.g., Walter et al., 2007, 2014; Yoo and Kim, 2014). Furthermore, consistent with previous work on mental imagery, the current study demonstrates the dynamics among different dimensions of mental imagery within a SNS that quality and elaboration are integral factors contributing to the formation of favorable brand SNS attitudes. Interestingly, the effects of quality and elaboration on brand SNS attitude are associated with positive affect that positive affect mediates such boosting effects. Given the results, future research can explore which specific elements in SNS would be critical in the formation of mental imagery.

In addition, we found that mental imagery processing is mediated by positive affect, through which quality and elaboration influence brand SNS attitude. The higher quality and elaboration consumers experience during their interactions with a brand's SNS account, the stronger positive feelings, and thus the stronger positive attitudes toward the brands' SNS account. This result is consistent with findings in previous studies (e.g., Miller and Marks,

1997; Oliver et al., 1993; Overmars and Poels, 2015; Yoo and Kim, 2014). This study contributes to the mental imagery literature by demonstrating positive affect as an underlying mechanism of imagery persuasion in consumers' SNS message processing.

Finally, results of Study 1 reveal that mental imagery processing is contingent upon an individual's transportability in a mass-market fashion brand's SNS context. That is, transportability moderates the effects of quality and elaboration on brand SNS attitude, whereby effects are stronger among people who are more likely to become immersed in stories. Specifically, first, as transportability increases, the direct and indirect effects of quality on brand SNS attitude via positive affect become stronger. That is, transportability and quality of SNS jointly work together to enhance positive feelings and brand SNS attitude during the SNS experience. Next, transportability moderates the effect of elaboration on brand SNS attitude but not on positive affect, and this moderating effect particularly is confined to those with middle- to high-level transportability. That is, as transportability increases, the positive effect of elaboration on brand SNS attitude becomes stronger. Such finding that transportability can differentiate the magnitude of imagery processing effects is in line with previous research (e.g., Lee and Shin, 2014; Mazzocco and Green, 2011). It is noteworthy that the result of varying moderating effects of transportability along with different mental imagery dimensions is firstly observed in this study. This study thus contributes to the mental imagery literature by proposing and demonstrating the moderating role of transportability, a personality trait that has been less explored.

Our findings also provide retailers with a clearer understanding of users' mental imagery processes in the digital media context, which can be used to improve consumer engagement strategies. First, the results that the mental imagery account can explain

consumers' imagery processing in SNS support continued brand investments in social media by showing that SNS messages/content can be effective tools for brand advertising and communication. The performance of brand SNS communication can be maximized when the SNS communication environment helps users develop mental imagery in which they perceive themselves as being in a given context of message. Second, we have highlighted two aspects of SNS content—quality and elaboration—that are essential for stimulating consumers' mental imagery; it will be especially important to consider these features as SMS content delivery formats continue to diversify. In order to facilitate such imagery experience in SNS, retailers are recommended to ensure their SNS messages/content fulfil quality and elaboration. For example, SNS messages/content of superior quality and interactive features such as pictures, video, animation/flash contents, and texts eliciting users' imagination (e.g., intuitive expression rather than rational expression) may help stimulate mental imagery processing. Lastly, as technology becomes sophisticated, so do users. The finding that a user's tendency to involve with a story (i.e., transportability) plays a moderating role in the formation of his/her imagery processing in SNS indicates the significance of understanding the target market and their imagery-related characteristics. Although it should be noted that such finding may not always occur given that our Study 2 failed to find transportability as a moderator, this research overall indicates that insights into differences in users' levels of transportability can help retailers interpret and manage information transferred via social media and enhance users' experiences.

8. Limitations and future research directions

A limitation of this study is that we analyzed self-reported data of cross sectional surveys. An experimental design in which the mental imagery dimensions and transportability are

manipulated would help researchers identify causal effects proposed in the model and in turn strengthen the validity of our findings. Alternatively, different methodological approaches (e.g., social network analysis, cross-cultural research) would be useful for confirming the model. For example, along with continuing evolution of the SNS, longitudinal research that explores how our results would change across time is recommended. In addition, we focused on Instagram as the brand SNS advertising platform; examining whether these findings hold true in other settings (e.g., text-based Twitter) or differ across different SNS advertising settings (e.g., Facebook vs. Twitter vs. Instagram) would be meaningful avenues of inquiry. In the future, researchers also should focus on identifying other moderators that may explain different dynamics of mental imagery processing. For example, individuals with high need for affect (low need for cognition) may be more responsive to this affect-based mechanism of imagery processing than those with low need for affect (high need for cognition). Likewise, how users' perceptions of risk potentials for SNS affect their imagery information processing in SNS would help gain comprehensive understanding about consumer behavior in SNS. It may be expected that the potential for increased anonymity of social media may raise security concerns, which further possibly hinder imagery processing.

References

- Anderson, J.R., 1978. Arguments concerning representations for mental imagery. *Psychol. Rev.* 85 (4), 249–277.
- Appel, M. and Richter, T. (2010) 'Transportation and Need for Affect in Narrative Persuasion: A Mediated Moderation Model', *Media Psychology*, 13(2), pp. 101–135. doi: 10.1080/15213261003799847.

- Argyriou, E. (2012) 'Consumer Intentions to Revisit Online Retailers: A Mental Imagery Account', *Psychology & Marketing*, 29(1), pp. 25–35. doi: 10.1002/mar.
- Aydinoğlu, N. Z. and Cian, L. (2014) 'Show me the product, show me the model: Effect of picture type on attitudes toward advertising', *Journal of Consumer Psychology*, 24(4), pp. 506–519. doi: 10.1016/j.jcps.2014.04.002.
- Babin, L. A. and Burns, A. C. (1997) 'Effects of Print Ad Pictures and Copy Containing Instructions to Imagine on Mental Imagery That Mediates Attitudes', *Journal of Advertising*, 26(3), pp. 33–44. doi: 10.1080/00913367.1997.10673527.
- Babin, L. A. and Burns, A. C. (1998) 'A modified scale for the measurement of communication-evoked mental imagery', *Psychology & Marketing*, 15(3), pp. 261–278. doi: 10.1002/(SICI)1520-6793(199805)15:3<261::AID-MAR4>3.0.CO;2-8.
- Blondé, J. and Girandola, F. (2016) 'Revealing the elusive effects of vividness : a meta-analysis of empirical evidences assessing the effect of vividness on persuasion', *Social Influence*, 11(2), pp. 111–129. doi: 10.1080/15534510.2016.1157096.
- Bone, P. F. and Ellen, P. S. (1992) 'The Generation and Consequences of Communication-Evoked Imagery', *Journal of Consumer Research*, 19(1), pp. 93–104. doi: 10.1086/209289.
- Burns, A. C., Biswas, A. and Babin, L. A. (1993) 'The Operation of Visual Imagery as a Mediator of Advertising Effects', *Journal of Advertising*, 22(2), pp. 71–85. doi: 10.1080/00913367.1993.10673405.
- Childers, T. L. and Houston, M. J. (1984) 'Conditions for a Picture-Superiority Effect on Consumer Memory', *Journal of Consumer Research*, 11(2), p. 643. doi: 10.1086/209001.
- Ching, R. K. H. *et al.* (2013) 'Narrative online advertising: Identification and its effects on attitude toward a product', *Internet Research*, 23(4), pp. 414–438. doi: 10.1108/IntR-04-2012-0077.

Content Marketing Institute. B2C content marketing: 2018 Benchmarks, budgets, and trends - North America. <<https://contentmarketinginstitute.com/wp-content/uploads/2017/12/2018_B2C_Research_Final.pdf>>

Dal Cin, S., Zanna, M. P. and Fong, G. T. (2004) 'Narrative persuasion and overcoming resistance', in *Resistance and Persuasion*, pp. 175–191. doi: 10.4324/9781410609816.

Davis, M. H. (1983) 'Measuring individual differences in empathy: Evidence for a multidimensional approach', *Journal of personality and social psychology*, 44(1), pp. 113–126. doi: 10.1037/0022-3514.44.1.113.

Escalas, J. E. (2004) 'Imagine yourself in the product: Mental simulation, narrative transportation, and persuasion', *Journal of Advertising*, 33(2), pp. 37–48.

Feiereisen, S., Wong, V. and Broderick, A. J. (2008) 'Analogies and mental simulations in learning for really new Products: The role of visual attention', *Journal of Product Innovation Management*, 25(6), pp. 593–607. doi: 10.1111/j.1540-5885.2008.00324.x.

Gavilan, D., Avello, M. and Abril, C. (2014) 'The mediating role of mental imagery in mobile advertising', *International Journal of Information Management*. Elsevier Ltd, 34(4), pp. 457–464. doi: 10.1016/j.ijinfomgt.2014.04.004.

Green, M. C. and Brock, T. C. (2000) 'The role of transportation in the persuasiveness of public narratives.', *Journal of personality and social psychology*, 79(5), pp. 701–721. doi: 10.1037/0022-3514.79.5.701.

Holmes, E. A. and Mathews, A. (2010) 'Mental imagery in emotion and emotional disorders', *Clinical Psychology Review*, 30(3), pp. 349–362. doi: 10.1016/j.cpr.2010.01.001.

Huang, P., Lurie, N. H. and Mitra, S. (2009) 'Searching for Experience on the Web: An Empirical Examination of Consumer Behavior for Search and Experience Goods', *Journal*

- of Marketing*, 73(2), pp. 55–69. doi: 10.1509/jmkg.73.2.55.
- Keller, P. A. and Block, L. G. (1997) ‘Vividness Effects: A Resource-Matching Perspective’, *Journal of Consumer Research*, 24(3), pp. 295–304. doi: 10.1086/209511.
- Khrouf, L. and Frikha, A. (2016) ‘Web-surfers’ conative reactions to the website’s dominant hue: mental imagery’s role’, *Internet Research*, 26(5), pp. 1249–1268. doi: 10.1108/IntR-01-2014-0015.
- van Laer, T. *et al.* (2014) ‘The Extended Transportation-Imagery Model: A Meta-Analysis of the Antecedents and Consequences of Consumers’ Narrative Transportation’, *Journal of Consumer Research*, 40(February), pp. 797–817. doi: 10.1086/673383.
- Lee, E.-J. and Shin, S. Y. (2014) ‘When the medium is the message: How transportability moderates the effects of politicians’ twitter communication’, *Communication Research*, 41(8), pp. 1088–1110. doi: 10.1177/0093650212466407.
- Lee, K. Y. (2012) ‘Consumer processing of virtual experience in e-commerce: A test of an integrated framework’, *Computers in Human Behavior*. Elsevier Ltd, 28(6), pp. 2134–2142. doi: 10.1016/j.chb.2012.06.018.
- Lee, W. and Gretzel, U. (2012) ‘Designing persuasive destination websites: A mental imagery processing perspective’, *Tourism Management*. Elsevier Ltd, 33(5), pp. 1270–1280. doi: 10.1016/j.tourman.2011.10.012.
- MacInnis, D. J. and Price, L. L. (1987) ‘The Role of Imagery in Information Processing: Review and Extensions’, *Journal of Consumer Research*, 13(4), pp. 473–491. doi: 10.1086/209082.
- Mazzocco, J. P. and Green, M. C. (2011) ‘Narrative Persuasion in Legal Settings: What’s the Story?’, *The Jury EXPERT*, 23(3), pp. 27–38. Available at:

<http://www.unc.edu/~mcgreen/>.

Mikhailitchenko, A. *et al.* (2009) 'Cross-cultural advertising communication: Visual imagery, brand familiarity, and brand recall', *Journal of Business Research*, 62(10), pp. 931–938. doi: 10.1016/j.jbusres.2007.11.019.

Miller, D. W., Hadjimarcou, J. and Miciak, A. (2000) 'A scale for measuring advertisement-evoked mental imagery', *Journal of Marketing Communications*, 6(1), pp. 1–20. doi: 10.1080/135272600345525.

Miller, D. W. and Marks, L. J. (1997) 'The Effects of Imagery-Evoking Radio Advertising Strategies on Affective Responses', *Psychology and Marketing*, 14(4), pp. 337–360. doi: 10.1002/(SICI)1520-6793(199707)14:4<337::AID-MAR3>3.0.CO;2-A.

Oliver, R., Robertson, T. and Mitchell, D. (1993) 'Imaging and Analyzing in Response to New Product Advertising', *Journal of Advertising*, 22(4), pp. 35–50. doi: 10.2307/4188898.

Overmars, S. and Poels, K. (2015) 'How product representation shapes virtual experiences and re-patronage intentions: the role of mental imagery processing and experiential value', *The International Review of Retail, Distribution and Consumer Research*, 25(3), pp. 236–259. doi: 10.1080/09593969.2014.988279.

Paivio, A. (1969) 'Mental imagery in associative learning and memory', *Psychological Review*, 76(3), pp. 241–263.

Patrick, V. M., Macinnis, D. J. and Park, C. W. (2007) 'Not as happy as I thought I'd be? Affective misforecasting and product evaluations', *Journal of Consumer Research*, 33(4), pp. 479–489. doi: 10.1086/510221.

Petrova, P. K. and Cialdini, R. B. (2005) 'Fluency of Consumption Imagery and the Backfire Effects of Imagery Appeals', *Journal of Consumer Research*, 32(3), pp. 442–452. doi: 10.1086/497556.

- Petrova, P. K. and Cialdini, R. B. (2008) 'Evoking the Imagination as a Strategy of Influence', *Handbook of Consumer Psychology*, pp. 505–523. doi: 10.1017/CBO9781107415324.004.
- Putrevu, S., Tan, J. and Lord, K. R. (2004) 'Consumer Responses to Complex Advertisements: The Moderating Role of Need for Cognition, Knowledge, and Gender', *Journal of Current Issues & Research in Advertising*, 26(1), pp. 9–24. doi: 10.1080/10641734.2004.10505153.
- Rodríguez-Ardura, I. and Martínez-López, F. J. (2014) 'Another look at "being there" experiences in digital media: Exploring connections of telepresence with mental imagery', *Computers in Human Behavior*, 30, pp. 508–518. doi: 10.1016/j.chb.2013.06.016.
- Schlosser, A. E. (2003) 'Experiencing Products in the Virtual World: The Role of Goal and Imagery in Influencing Attitudes versus Purchase Intentions', *Journal of Consumer Research*, 30(2), pp. 184–198. doi: 10.1086/376807.
- Tiggemann, M. and Kemp, E. (2005) 'The phenomenology of food cravings: The role of mental imagery', *Appetite*, 45(3), pp. 305–313. doi: 10.1016/j.appet.2005.06.004.
- Walters, G., Sparks, B. and Herington, C. (2007) 'The Effectiveness of Print Advertising Stimuli in Evoking Elaborate Consumption Visions for Potential Travelers', *Journal of Travel Research*, 46(1), pp. 24–34. doi: 10.1177/0047287507302376.
- Walters, G., Sparks, B. and Herington, C. (2012) 'The Impact of Consumption Vision and Emotion on the Tourism Consumer's Decision Behavior', *Journal of Hospitality & Tourism Research*, 36(3), pp. 366–389. doi: 10.1177/1096348010390815.
- Weibel, D., Wissmath, B. and Mast, F. W. (2011) 'Influence of Mental Imagery on Spatial Presence and Enjoyment Assessed in Different Types of Media', *CyberPsychology, Behavior & Social Networking*, 14(10), pp. 607–612. doi: 10.1089/cyber.2010.0287.

Yoo, J. and Kim, M. (2014) 'The effects of online product presentation on consumer responses: A mental imagery perspective', *Journal of Business Research*. Elsevier Inc., 67(11), pp. 2464–2472. doi: 10.1016/j.jbusres.2014.03.006.

Fig. 1. Conceptual model of mental imagery processing on SNS.

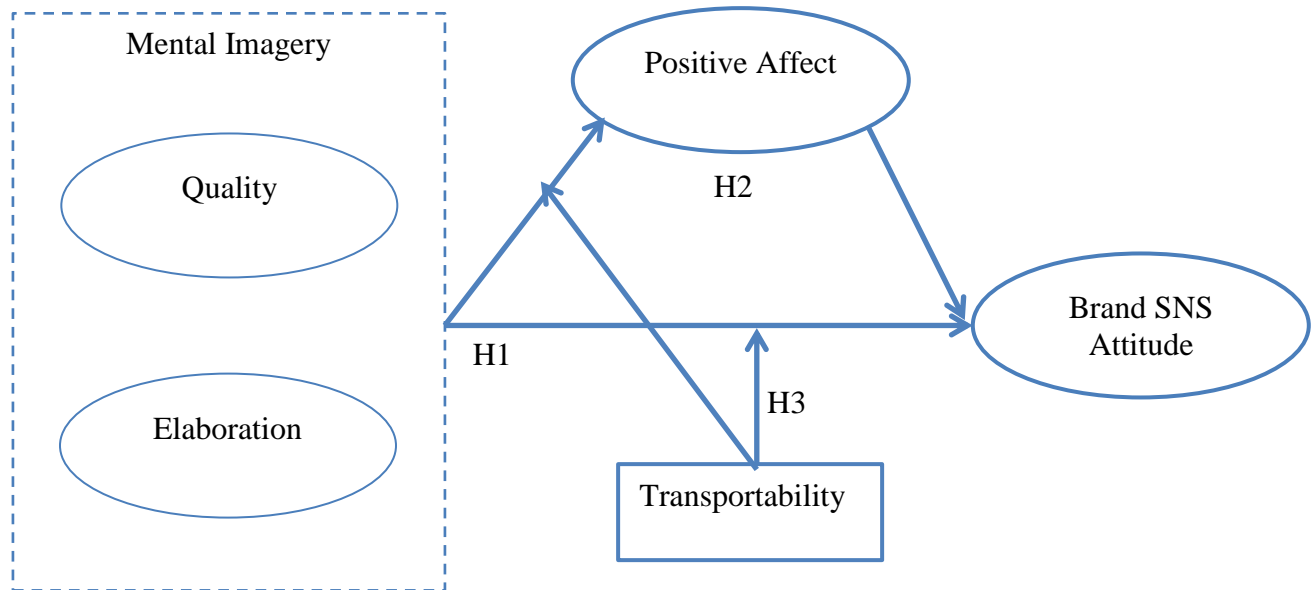


Table 1
Measurement model results.

| Variables | Factor loading | Cronbach's α | Construct reliability |
|---|----------------|---------------------|-----------------------|
| | Study1/Study2 | Study1/Study2 | Study1/Study2 |
| <i>Quality of mental imagery</i> | | | |
| (Overall, the images that came to mind while I was looking at contents were...) | | | |
| dull – sharp | 0.93/0.91 | 0.95/0.94 | 0.93/0.94 |
| weak – intense | 0.88/0.75 | | |
| unclear – clear | 0.78/0.88 | | |
| vague – vivid | 0.86/0.93 | | |
| fuzzy – well-defined | 0.83/0.89 | | |
| <i>Elaboration of mental imagery</i> | | | |
| The mental images that came to mind formed a series of events in my mind in which I was a part of. | 0.85/0.76 | 0.96/0.95 | 0.95/0.94 |
| The mental images that came to mind made me feel as if I was actually experiencing the featured brand. | 0.86/0.84 | | |
| The pictures made me fantasize about having the opportunity to experience the brand. | 0.85/0.79 | | |
| I could easily construct a story about myself and the brand based on the mental images that came to mind. | 0.90/0.87 | | |
| It was easy for me to imagine wearing this brand product. | 0.78/0.82 | | |
| While reviewing the pictures, I found myself daydreaming about the brand. | 0.75/0.82 | | |
| While reviewing the pictures, many images came to mind. | 0.79/0.77 | | |
| The mental images that came to mind were very clear and specific. | 0.79/0.77 | | |
| The images that came to mind acted as a source of information about the brand. | 0.86/0.68 | | |
| I could actually see myself wearing the brand products. | 0.78/0.80 | | |
| <i>Positive Affect</i> | | | |
| (While examining the Instagram account, I felt...) | | | |
| stimulated | 0.88/0.87 | 0.97/0.96 | 0.97/0.96 |
| active | 0.84/0.81 | | |
| alive | 0.87/0.86 | | |
| cheerful | 0.91/0.87 | | |
| delighted | 0.93/0.87 | | |
| energetic | 0.91/0.86 | | |
| happy | 0.90/0.90 | | |
| pleased | 0.93/0.88 | | |
| <i>Attitudes toward the brand SNS account</i> | | | |
| (My overall evaluation of the brand's SNS is...) | | | |
| unfavorable – favorable | 0.96/0.94 | 0.98/0.97 | 0.98/0.96 |
| negative – positive | 0.95/0.96 | | |
| bad – good | 0.95/0.92 | | |
| unpleasant – pleasant | 0.93/0.89 | | |
| dislike very much – like very much | 0.94/0.86 | | |

Table 2
Convergent and discriminant validity.

| | Quality | Elaboration | Positive affect | Attitude |
|-----------------|--------------------|--------------------|--------------------|--------------------|
| Quality | 0.74 (0.76) | 0.25 | 0.29 | 0.36 |
| Elaboration | 0.46 | 0.68 (0.63) | 0.53 | 0.40 |
| Positive affect | 0.55 | 0.67 | 0.80 (0.75) | 0.45 |
| Attitude | 0.52 | 0.40 | 0.56 | 0.89 (0.84) |

Note. On the diagonal, average variance extracted (AVE) of each factor for study 1 (study 2) is displayed in bold. Values in lower triangular show the squared correlation coefficients between constructs for study 1. Values in upper triangular for study 2.

Table 3
Results of hypotheses testing.

| Path in the model | Std. estimate | SE | t-value |
|-------------------------------|---------------|---------------|------------------------------|
| | Study1/Study2 | Study1/Study2 | Study1/Study2 |
| Quality → positive affect | 0.34/0.23 | 0.06/0.08 | 7.12***/3.83*** |
| Elaboration → positive affect | 0.59/0.62 | 0.05/0.07 | 11.79***/9.07*** |
| Quality → attitude | 0.37/0.30 | 0.06/0.07 | 6.17***/4.70*** |
| Elaboration → attitude | -0.04/0.23 | 0.07/0.07 | -0.62 ^{n.s.} /2.76* |
| Positive affect → attitude | 0.37/0.34 | 0.07/0.07 | 6.45**/4.03** |

Note: *** $p < .001$, ** $p < .01$, * $p < .05$

Table 4

Direct, indirect, and total effects.

| Predictors | Brand SNS attitude | | | Positive affect | | |
|-----------------|--------------------|---------------|--------------|-----------------|---------------|--------------|
| | Indirect effect | Direct effect | Total effect | Indirect effect | Direct effect | Total effect |
| Study 1 | | | | | | |
| Quality | .17*** | .37** | .55** | - | .34** | .34** |
| Elaboration | .30*** | -.04 | .25** | - | .59*** | .59*** |
| Positive affect | - | .51*** | .51*** | | | |
| Study 2 | | | | | | |
| Quality | .08*** | .30** | .38** | - | .23** | .23** |
| Elaboration | .21** | .23 | .44*** | - | .62** | .62** |
| Positive affect | - | .34** | .34*** | | - | - |

Note. Standardized path estimates are reported. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5
Direct and indirect effects at values of transportability.

| Predictors | Transportability (Moderator) | Conditional indirect Effect | | Conditional direct Effect | |
|----------------|---------------------------------|-----------------------------|--|---------------------------|--|
| | | Effect | 95% Bias- Corrected Bootstrap CI | Effect | 95% Bias- Corrected Bootstrap CI |
| <i>Study 1</i> | | | | | |
| Quality | 3.72 (Mean - 1SD) | .33 | .22 to .46 | .25 | .13 to .37 |
| | 4.69 (Mean) | .38 | .26 to .52 | .41 | .30 to .52 |
| | 5.66 (Mean + 1SD) | .42 | .27 to .60 | .57 | .43 to .70 |
| Elaboration | 3.72 | .53 | .37 to .68 | .09 | -.06 to .23 |
| | 4.87 | .51 | .37 to .66 | .16 | .03 to .29 |
| | 6.01 | .49 | .36 to .64 | .23 | .10 to .37 |
| <i>Study 2</i> | | | | | |
| Quality | 3.63 (Mean - 1SD) | .21 | .12 to .34 | .34 | .21 to .47 |
| | 4.62 (Mean) | .23 | .14 to .37 | .36 | .23 to .49 |
| | 5.61 (Mean + 1SD) | .26 | .14 to .43 | .38 | .21 to .56 |
| Elaboration | 3.63 | .26 | .15 to .42 | .28 | .12 to .44 |
| | 4.62 | .28 | .17 to .43 | .31 | .17 to .45 |
| | 5.61 | .30 | .19 to .47 | .34 | .18 to .50 |