Effects of Social Distance and Matching Message Orientation on Consumers' Product Evaluation

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Abstract. Despite a tremendous increase in the online sales of experiential products (e.g., clothes), how to present such kind of products to better intrigue online consumers remains unsolved. Relative to model presentation (i.e., presented by professional models), peer presentation (i.e., presented by peer consumers) is emerging as a new way of IT-enabled product presentation welcomed by online clothing merchants. Drawing on the Construal Level Theory, we examine the effects of peer presentation vs. model presentation, and the fitness between recommendation messages and these two types of presentation. We propose that compared to model presentation, peer presentation yields a closer psychological distance to a consumer, and is likely to arouse a lower level mental construal of the consumer. Thus, alongside peer presentation, a recommendation message that fits a low level construal (i.e., secondary features) is more persuasive. Contrarily, alongside model presentation, a recommendation message that fits a high level construal (i.e., primary features) is more persuasive. Lab experiments and a field experiment are designed to test these hypotheses.

Keywords: Electronic commerce, Peer presentation, Social distance, Message orientation, Construal level.

1 Introduction

With the rapid technology development and the globalization of business, E-commerce is fast growing. The amount and variety of physical goods sold online continues to expand each year, with clothing and accessories the leading category ($19.5 billion) within the United States in 2009, ahead of electronics and appliances ($14 billion) and computer hardware/software ($14 billion) (U.S. Census Bureau 2012).

However, because of the experiential nature of clothes, the evaluation of clothes prior to purchase involves more sensory evaluation (e.g., touch, feel) than search products (e.g., cameras). Due to the lack of such sensory experience in the online shopping environment, consumers find it more difficult to well evaluate clothes than

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evaluating search products (Dimoka et al. 2012). Therefore, to better inform their consumers, online apparel retailers have adopted innovative technologies of online product presentation (Smith et al. 2011; Weathers et al. 2007), such as virtual model technology as an online shopping tool and using videos with narration product presentation format (Jiang and Benbasat 2007; Smith et al. 2011).

While most prior research focuses on what online apparel retailers can provide for consumers (Dimoka et al. 2012; Sia et al. 2009; Smith et al. 2011), some pioneering retailers start to think about what consumers can contribute for later buyers. Traditional textual reviews by consumers, despite being useful in evaluating search products, are found not that informative in the case of online clothes retailing.

Since "a picture is worth a thousand words", photo reviews by consumers have recently emerged as a new IT-enabled phenomenon. Online apparel retailers begin to encourage consumers to upload their own photos with themselves wearing the product (e.g., a pair of trousers), and give corresponding incentives (e.g., discount) as rewards to them. It is believed that, by such peer presentation, consumers can share with the audience about how the piece of apparel looks on them, so as to provide more reliable product information (e.g., the size, the cut, the color) to potential consumers and facilitate their evaluation process.

Despite scholars' growing interest in the role of peer presentation in online shopping, theoretical or empirical work in this area is very limited. Although prior studies have hint on some direct benefits of using peers to present a product, such as increased informativeness, trust and usefulness (Lim et al. 2006; Sia et al. 2009), whether peer presentation (i.e., peer consumers presenting a product) works better than traditional model presentation (i.e., models presenting a product) in the online shopping environment still remains an interesting question.

In this study, we are more interested to find out how consumers process the information in peer presentation and model presentation differently. For instance, do consumers process the photos presented by peers and models at the same level of mental representation? In each condition (i.e., peer or model presentation), what types of recommendation message do consumers focus more and thus is more effective in influencing their evaluation process?

To address these questions, we mainly draw on the Construal Level Theory (Liberman and Trope 1998; Trope and Liberman 2003; Trope and Liberman 2010), which has been successful in explaining individuals' distinct thinking patterns towards stimuli with different degrees of psychological distance perceived. As Construal Level Theory suggests, people use different mental representations of a stimulus when they perceive different degrees of psychological distance towards it. When facing a stimulus with a closer psychological distance, people tend to use a lower-level construal to present it. Since peers may generate a closer psychological distance than models because of the perceived closer social distance, we posit that online consumers will use a lower-level mental construal towards peer presentation.

Moreover, prior research suggests that people put more weight on primary or central attributes of a product when they use high-level construals. On the contrary, they put more weight on secondary or peripheral attributes when they use low-level construals (Kim et al. 2008b; Trope and Liberman 2000). For instance, Trope and Liberman (2000) have found that the sound quality of a radio (i.e., primary attribute) becomes more important when people make purchase decision for a distant future (i.e., a year

later) while the clock of a radio (i.e., secondary attribute) becomes more important when people consider the purchase in the near future (i.e., next day). To summarize, people pay more attention to different features of a product when they use different mental construals to represent the product. Following this literature on fitness, we also examine the effect of the fitness between product presentation and recommendation messages.

Our study advances theoretical development on online product presentation in three important ways. Firstly, we identify the importance of this new IT-enabled product presentation-peer presentation and distinguish its effect from that of model presentation. Secondly, we enrich the Construal Level Theory by focusing on the effects of mental construals induced by social distance in online shopping environment. We show that, when facing different online product presentation groups (i.e., peer vs. model), consumers process product information in different ways. Thirdly, we investigate the fitness between product presentation and recommendation messages, so as to provide a more nuanced understanding of effective product presentation strategy for online apparel retailers.

2 Theoretical Background

2.1 Social Distance and Construal Level

Construal Level Theory (Liberman and Trope 1998; Trope and Liberman 2003; Trope and Liberman 2010) contends that with different degrees of psychological distance (e.g., proximal, distal) perceived, people will use different construals (e.g., low-level, high-level) to represent the objects or events. Psychological distance is the subjective perception that something is close or far away from the self, here, and now (Trope and Liberman 2010). High-level construals are relatively abstract, coherent, and superordinate mental representations which focus on primary or central features of events. Low-level construals are relatively concrete, incidental, and subordinate mental representations which focus on secondary or peripheral features of events. As the psychological distance from the objects or events increases, people will use increasingly higher levels of mental construal to represent them (Trope and Liberman 2010). Intuitively speaking, from a distance, we see the forest, as we get closer, we see the trees.

Construal Level Theory originated with the temporal perspective (Trope and Liberman 2003). Recently, it has been extended to cover another three dimensions: social distance, spatial distance, and hypotheticality. These four dimensions can be all explained and unified under the conceptual framework of psychological distance (Trope and Liberman, 2010). Among the four dimensions of psychological distance, social distance (e.g., self vs. other; in-group vs. out-group, similar others vs. dissimilar others) is the most pertinent dimension that can shed light on our study on online peer presentation vs. model presentation (Trope et al. 2007). *Social distance* refers to the perceived psychological distance towards another person or other groups (Trope and Liberman, 2006). There are several forms of social distance, such as self and others, similar and dissimilar others, and in-group and out-group members (Liberman et al. 2007). Similar targets are perceived socially closer than dissimilar others (Heider 1958; Miller et al. 1998; Tesser 1988). In-groups are perceived as socially closer than out-groups (Brewer and Weber 1994; Turner 1987).

In light of Construal Level Theory, as the social distance towards an object increases, people represent the object in more abstract, schematic and decontextualized terms (i.e., high-level construals). Conversely, when social distance decreases, people represent the objects in more concrete, detailed, and contextualized terms (i.e., low-level construals). As a result, our study focuses on the examination of social distance induced by different group presentation (i.e., peer vs. model).

In the context of online shopping, models and peers are considered as two different social groups. Models are those persons who are hired by a company to present a product, while peers refer to ordinary consumers. Generally speaking, model presentation is believed to be more attractive than peer presentation, because models are often celebrities or highly attractive persons who present the product in a professional and attractive way, especially in the apparel industry (Bower and Landreth 2001; Kang and Herr 2006). However, in peer presentation, they are ordinary people from the consumer group and share common characteristics (e.g., facial attractiveness, body size, and personal disposition) with potential consumers. They are more likely to invoke a feeling of unit grouping, which appeals to social closeness between them and the later consumers (McKnight et al. 2002; Sia et al. 2009).

The literature of marketing has studied the effect of referral groups on product promotion (Bearden and Etzel 1982; Childers and Rao 1992; Prentice et al. 1994). For instance, family members and friends are considered as in-groups with relationship bonding. More than that, in-groups can also be based on shared general social identity; that is, people belong to large groups or broad social categories towards which the focal individual has a symbolic attachment, such as fellow university students or same social class members (Prentice et al. 1994; Sia et al. 2009). In the context of this study, peers are more likely to be considered as in-groups compared to models and they will be perceived as psychologically closer by consumers. Accordingly, consumers will use different mental construals towards these two presenting groups.

2.2 Fit Literature

Following the Construal Level Theory, a considerable amount of previous research has highlighted the importance of fitness between message orientation and consumers' mental construal enhances the persuasiveness of a message (Castaño et al. 2008; Lee and Aaker 2004; Reber et al. 2004; Zhao and Xie 2011; Ziamou and Veryzer 2005). When message orientation is consistent with people's mental construal state (e.g., they encounter desirability-focused information when they are contemplating a consumption event in the distant future), they are more likely to experience a feeling of processing fluency or ease of comprehension (Kim et al. 2008a; Reber et al. 2004).

The underlying mechanism is that this feeling of fluency further leads to a sense of "feeling right" (or feeling correct) about the focal event, so as to enhance positive evaluation towards the target event, as people misattribute their "feeling right" experience to higher quality of the targeted events, either be it a persuasive message or a consumption experiences (Cesario et al. 2004; Higgins et al. 2003; Kim et al. 2008a). For instance, Lee and Aaker (2004) have shown that a fitness between the message orientation (e.g., gain versus loss) and a consumer's regulatory focus (e.g., promotion vs. prevention) leads to greater fluency and thus greater persuasiveness of the message. Trope and Liberman (2000) have found that the sound quality of a radio

(i.e., primary attribute) becomes more important when people make purchase decision for a distant future (i.e., a year later) while the clock of a radio (i.e., secondary attribute) becomes more important when people consider the purchase in the near future (i.e., next day). Ziamou and Veryzer (2005) have also demonstrated that, when judging a new product, people put more weight on the functionality (i.e., a primary attribute) of the product when the purchase is expected to occur in distant future; in contrast, people put more weight on the interface design (i.e., secondary attribute) when the purchase is believed to occur in near future. In addition, recent studies suggest that in political voting domain, abstract, "why"-laden appeals are more persuasive than concrete, "how"-laden appeals when voters' decision is temporally distant, and when the decision is in near future, the case is reversed (Kim et al. 2008a).

All these previous studies imply that a recommendation message becomes more influential when its message orientation is congruent with a consumer's mental construal levels than when incongruent. Following this logic, we posit that as consumers use different levels of construal (i.e., high-level vs. low-level construal) towards the two groups' presentation (i.e., model vs. peer presentation), differently oriented recommendation messages (i.e., primary vs. secondary features) alongside the presenting person will have distinct effect. Here, *primary features* refer to the key features which define a product; while *secondary features* refer to those less essential features of a product. In particular, we expect that consumers' information processing would be facilitated if they perceive a fitness between presenting groups and message orientation.

3 Hypotheses and Research Model

As Construal Level Theory contends, people will use different construal levels to represent the event when they perceive different degrees of psychological distance towards the event (Trope and Liberman 2010; Trope et al. 2007). Because of the feeling of unit grouping and perceived social similarity (McKnight et al. 1998; Sia et al. 2009), we believe that consumers will perceive peer models as socially closer than professional models. They will use a low-level construal to process the information provided by peer models. Prior studies have also found that people will put more weight on the secondary features of a product rather than the primary features when they represent the product in a low-level construal (Kim et al. 2008b; Trope and Liberman 2000; Zhao and Xie 2011). Taking the importance of fitness between construal level and message orientation into consideration, we posit that when peer models are presenting a product, consumers will be more likely to be influenced by the recommendation messages that promote secondary features of the product compared to the recommendation messages that promote primary features. Consequently it will increase the chance of consumers' purchase behavior. Thus, we hypothesize that:

H1: When peer model is presenting a product, people will conduct more purchase behavior if the recommendation messages alongside the product presentation focus on secondary features of the product compared to when the recommendation messages focus on primary features.

Different from a low level construal, people will mentally represent an event in a high-level construal if it is perceived psychologically distant. As professional models are quite different from the consumer group and they present quite different personality

traits (e.g., physical attractiveness, body feature) from the consumers (Bower and Landreth 2001; Smeesters and Mandel 2006), consumers will perceive the professional model group as socially distant, compared to peer model group, so that they will use a higher level construal to represent professional model product presentation. Consumers will put more weight on primary features of a product and they will be more likely to be influenced by the recommendation messages that promote primary features of the product, compared to the recommendation messages that promote secondary features. Thus, we hypothesize that:

H2: When professional model is presenting a product, people will conduct more purchase behavior if the recommendation messages alongside the product presentation focus on primary features of the product compared to when the recommendation messages focus on secondary features.

Our research model is depicted in Figure 1. Presentation role represents who presents the product: model presentation vs. peer presentation. Message orientation represents the recommendation messages alongside the presentation photos: primary feature vs. secondary feature. Purchase behavior is the actual shopping behavior captured.

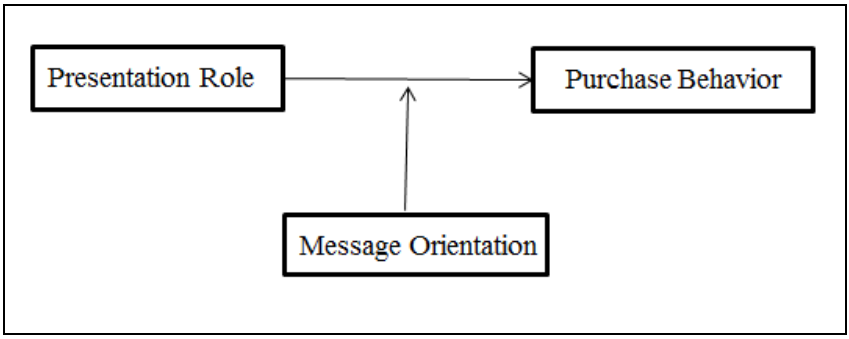

Fig. 1. Research Model

4 Methodology

The hypotheses developed above will be tested through a field experiment with 2 (types of presentation role: model presentation vs. peer presentation) × 2 (message orientation: primary features vs. secondary features) between-subjects experiment design. Pilot tests have been conducted in lab experiments, after which a field experiment with same settings on the website of a big online apparel retailer will be conducted.

Pretest on the Manipulation of Message Orientation. As females generally buy female apparel and males buy male apparel, we cannot use the same product stimuli to test in both genders. To generalize the results of our study, for each gender, we selected a new shirt as the stimulant product. To rule out alternative explanations, the female and male shirts have similar design and functional features.

According to the Construal Level Theory, when people are involved in high-level construals, they represent the consumption event in a more central, goal-relevant features focused way. Recommendation message that is about primary features becomes more persuasive to them. When people are involved in low-level construals, they represent the consumption event in a more peripheral, relatively goal-irrelevant features focused way. Recommendation message that is about secondary features becomes persuasive (Trope and Liberman 2010). In the pretest, we have identified two product features which represent primary attribute and secondary attribute respectively.

Pretest with 30 students from a public university was conducted to identify the appropriate message orientation relevant to shirts. Two features have been identified from a variety of recommendation messages and consumer reviews of similar products from online apparel websites: design and collocation. Design refers to the aesthetic dimension of the apparel (e.g., a dress looks beautiful, a shirt look cool). Collocation refers to whether this piece of apparel can easily match with other pieces of apparel or accessories.

Participants were asked to answer five questions: to what extent each feature is a/an (a) primary, (b) essential, (c) critical, (d) central, and (e) goal-relevant attribute when they are thinking of buying a shirt (Kim, Zhang & Li, 2008). All items were on a 7-point scale anchored by 1 (not at all) and 7 (extremely) and were highly reliable (Cronbach's α=.82). The results showed that for the shirt, design (M=5.58, SD=0.69) was indeed considered as a more primary feature than collocation (M=4.85, SD=0.83, t (29)=3.942, P<.001). Thus, design was used as a primary feature, and collocation was a secondary feature.

Pretest on the Manipulation of Presentation Role. In this pretest, we investigated whether consumers perceive different degrees of social distance towards two presentation roles: model presentation vs. peer presentation. It was manipulated by labeling different tags to the person who presents the products. The advantage of this manipulation is to control for the noises caused by physical attractiveness of the person presenting the product in each condition, as physical attractiveness can have an influential effect on consumers' judgment, evaluation and decision (Kahle and Homer 1985; Kang and Herr 2006). In particular, we used the same person in the four conditions within the same gender; that is, the same person was labeled as either "model" or "peer" in corresponding conditions.

Generally, a model should be at least above average level of physically attractiveness while a peer consumer should be around average physically attractive (Bower and Landreth 2001). Hence, to avoid participants' skepticism about the real identity of the person who presents the products, we selected one male and one female who were above average attractive level but not that highly attractive to be the ones presenting the product.

Two full-color photos depicting the two persons (one male and one female) have been selected from the website of an online apparel retailer. The two persons were both in their 20s as the target consumer of the online apparel retailer are young people. We recruited participants who were also in their 20s. For each gender group, 24 participants (12 female) rated the physical attractiveness level of the target person from 4 dimensions: (a) beautiful, (b) classy, (c) attractive, (d) elegant (Ohanian 1990).

All items were on a 7-scale anchored by 1 (not at all) and 7 (extremely) and they were highly reliable (Cronbach's α=.94).

For the female group, the results on the average of these four items confirmed that the physical attractiveness level (M=4.55, SD=1.04) is above average. For the male group, the averaged result on the physical attractiveness level (M=4.16, SD=1.11) is also above average. In addition, we also asked each participant whether he/she thought the person in the photo was a model or consumer, the counted results were quite balanced which didn't show much difference. Thus, both two persons were considered as attractive, but not that highly attractive, which were qualified and chosen as the presenters for female and male groups respectively. For the two persons wearing the chosen shirts, two photos (i.e., front and back) that clearly presented the shirts were used. As nowadays model presentation also has shootings outside the studio or uses real life environment as the background, in this study, we chose daily life environment (e.g., on the street) as the shooting background consistently.

Pilot Study. In the main laboratorial pilot study, 111 participants (50 female) are randomly assigned to two conditions (peer presentation vs. model presentation) of their gender. They were asked to look through the product webpage and answer the questions related to perceived social closeness: (1) perceived similarity, (2) typical consumer group member, (3) perceived psychological closeness (Kim et al. 2008). The result shows that both genders do perceive the one as much socially closer in peer presentation condition than in the model presentation condition (M_{peer}=3.61 vs. M_{model}=2.74, $t(110)<.001$).

Design of Field Experiment. In the field experiments, we will employ a 2 (presentation role: peer presentation vs. model presentation) × 2 (message orientation: primary features vs. secondary features) factorial design. Participants will be randomly assigned to one of the four conditions. In the field experiments, we will use a real online webpage of the online apparel retailer and make necessary adjustments for the experiment. On the product presentation webpage, we will replace the presentation photos by our selected photos. Within the same gender (or product) condition, all the webpage design and available product information are the same across four treatments. Only our manipulated things, i.e., the label of the model (model presentation vs. peer presentation) and the recommendation messages alongside the photos (design vs. collocation) will be differently combined across four treatments. The real shopping behavior will be captured in the field experiment. Other control variables will also be included (e.g., shopping experience, product knowledge).

5 Conclusion

In this study, we examine the effect of social distance on consumers' product evaluation and purchase behavior. We observe that in the real online shopping environment, two different groups of people (i.e., model presentation vs. peer presentation) may present a same product (e.g., apparel) to consumers. We believe that people will perceive these two groups with different degrees of social distance and thus mentally represent the encountered information in distinct ways. Given the fluency of

processing and the ease of comprehension (Castaño et al. 2008; Kim et al. 2008a), if we provide recommendation messages consistent with people's mental construal level (e.g., high-level vs. low level), the message persuasiveness will be enhanced, thus leading to more positive product attitude and more purchases.

This study contributes to the Construal Level Theory by emphasizing the importance of fitness between social distance and recommendation message orientation in enhancing persuasion. This is a quite new insight and needs further deep investigation. Our study also sheds lights on the important question in e-commerce, especially online shopping of experience products: Under what condition will consumer evaluation and decision be more influenced by primary or central product features as opposed to secondary or peripheral ones (Kim et al. 2008b).

Our findings also provide practical implication for online retailers. The fitness between social distance and message orientation (i.e., promoted features) suggests that online retailers should use the right group model when they promote corresponding product features so as to enhance the message persuasiveness, rather than just use these elements without a correct focus across all the different conditions. They could also base on that principle to make their online selling strategy. For example, some product might have a fancy design but it is difficult to collocate with other pieces of apparel or accessories, it might be better to use a model to present the product and exemplify the good design feature. While some other product may easily match up with other pieces of apparel or accessories, but the design is just quite average and mediocre, it would be better to put on peer presentation photos to encourage a focus on this low-level construal feature (e.g., collocation). In this way, the retailers can better leverage presentation groups and increase their sales.

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