Brand Essence Effects on Extension Information Accessibility

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This study advances the research scope of adverse extension effects by examining the impacts of brand similarity upon the accessibility of negative extension information. The research results reveal that the accessibility of unfavorable extension information of narrow brands is higher than that of broad brands. Negative extension information exerts more adverse effects on narrow brands than on broad brands. Narrow brands are high-similarity brands implying the existence of obvious underlying essence, which facilitates spontaneous processing of negative extension information. Contrarily, broad brands are low-similarity brands implying vague underlying essence, which leads to less spontaneous processing of negative extension information.

Keywords: cue-diagnosticity, brand essence, brand similarity, extension typicality, narrow brands, broad brands

INTRODUCTION

Cue-diagnosticity theory indicates that impression formation about a group is a diagnosticity-based categorization process (Skowronski & Carlston, 1987), and the judgment of diagnosticity depends upon the accessibility of cues (Feldman and Lynch, 1988). Highly accessible cues are more diagnostic of subsequent categorization judgments than are lowly accessible cues. Moreover, group similarity moderates perceivers' information integration about the characteristics of group members and subsequent impression formation about the group (Crawford et al., 2002; Lickel et al., 2000; Spencer-Rodgers et al., 2007).

Based on the cue-diagnosticity theory, extant research in adverse extension effects uncovered that negative information about close extensions is a diagnostic cue yielding more salient impacts than negative information about far extensions on brand evaluations (Ahluwalia & Gurhan-Canli, 2000). However, the research scope has been limited to the influence of the typicality of brand extensions. As with group perceptions, brand similarity and extension accessibility are expected to moderate adverse extension effects in addition to extension typicality. The influences of brand similarity and extension accessibility on adverse extension effects are important but were not explored yet. Therefore, this study advances the research scope of adverse extension effects by examining the impacts of brand similarity, coupled with extension typicality, upon the accessibility of negative extension information based on the cue-accessibility and group essence theories.

We propose that brand similarity and extension typicality jointly moderate extension accessibility, and therefore empirically examined the proposal with a two-factor between-subjects experimental study. We

demonstrate that, regardless of extension typicality, the accessibility of unfavorable extension information of narrow brands is higher than that of broad brands. As a result, negative extension information exerts more adverse effects on narrow brands than on broad brands, regardless of extension typicality.

CONCEPTUAL BACKGROUND

Group Similarity and Group Perceptions

Extant research on group perceptions has investigated the moderating effects of group structures on group impression formation (e.g., Callahan & Ledgerwood, 2016; Crawford et al., 2002; Dang et al., 2018; Lickel et al., 2000; Phillips et al., 2018). Specifically, group similarity moderates the information integration of the group members and the subsequent impression formation of the group (Crawford et al., 2002; Lickel et al., 2000; Spencer-Rodgers et al., 2007). Similarity denotes the demographic commonality of group members, which is a concept like categorical variability (or brand breadth) in branding.

The moderation of group similarity on group perceptions is predetermined by perceivers' expectations concerning the existence of the underlying essence, or explanatory structure, of the groups (Crawford et al., 2002; Wittenbrink et al., 1997). Information processing is more thorough for groups that have a salient essence than for groups that have a vague one (Yzerbyt & Schadron, 1994). The expected existence of an underlying essence is more salient for high-similarity groups than it is for low-similarity groups (Crawford et al., 2002; Spencer-Rodgers et al., 2007). This means that the information processing is less thorough for low-similarity groups than it is for high-similarity groups. Consequently, high-similarity groups are more extremely evaluated than are low-similarity groups, and the impacts of group members upon the perceptions of high-similarity groups are more pronounced than are those upon low-similarity ones (Crawford et al., 2002; Hamilton & Sherman, 1996; Sherman et al., 1999; Susskind et al., 1999).

Cue-Diagnosticity and Group Perceptions

Cue-diagnosticity theory indicates that impression formation about a group is a diagnosticity-based categorization process integrating positivity and negativity biases (Skowronski & Carlston, 1987). The judgment of diagnosticity is determined by comparing the perceived probability of occurrences. A diagnostic cue (e.g., cheating at exams) is salient information suggesting one category (e.g., dishonest people) over an alternative one (e.g., honest people). A cue (e.g., cheating at exams) is diagnostic if it induces a higher perceived probability that an object belongs to one category (e.g., dishonest people) and a lower perceived probability that the object belongs to an alternative category (e.g., honest people). In other words, a cue is diagnostic if the difference in perceived probabilities of a target category and an alternative category is significant. Diagnostic cues are unexpected and extreme and, thus, receive more weight and generate more impact on the impression formation of a subject (e.g., Anderson, 1981).

Moreover, the judgment of diagnosticity may depend upon the accessibility of cues (Feldman & Lynch, 1988). Perceivers are more likely to utilize highly accessible cues than lowly accessible ones for their categorization judgments. As a result, highly accessible cues are more diagnostic of subsequent categorization judgments than are lowly accessible cues. By comparison, the underlying essence theory recognizes the thoroughness of information processing within brands (e.g., high-similarity vs. low-similarity), whereas the accessibility-diagnosticity theory identifies the dominance of competing information on brand perceptions (e.g., high-similarity vs. low-similarity) and adverse extension effects (e.g., typical extension vs. atypical extension).

Accessibility of Unfavorable Extensions

Narrow brands are high-similarity brands implying the existence of obvious underlying essence, which facilitates the spontaneous processing of negative extension information (Crawford et al., 2002; Spencer-Rodgers et al., 2007; Wittenbrink et al., 1997; Yzerbyt & Schadron, 1994). Contrarily, broad brands are low-similarity brands implying the lack of underlying essence, which leads to less spontaneous processing of negative extension information (Crawford et al., 2002; Spencer-Rodgers et al., 2007; Wittenbrink et al., 1997; Yzerbyt & Schadron, 1994). As a result, regardless of extension typicality, the accessibility of

negative extension information of narrow brands will be higher than that of broad brands, which suggests that negative extension information will exert more adverse effects on narrow brands than on broad brands, regardless of extension typicality. Therefore,

H1. *The accessibility of negative extension information in narrow brands is higher than that in broad brands, regardless of extension typicality.*

H2. *The adverse effect of negative extension information on narrow brands is more pronounced than that on broad brands, regardless of extension typicality.*

METHODOLOGY

Materials

In line with previous research (Loken & John, 1993), two fictitious brands (X and Y brands) were crafted using Consumer Reports' statements representing high- and low-similarity brands (narrow and broad brands), respectively. The brand statements for these two brands consisted of two elements to capture the effect of the brand structure on the quality of the parent brand. The first element was a generic brand (G brand) statement describing the composition and quality of the X and Y brands (e.g., "one of the 100 Best Global Brands", "received an average 4-star rating on the 5-star quality rating scale of Consumer Reports"**).** The generic statements of these two brands were identical. The second element of the brand statements was a list of portfolio products. Extant research reports that group size affects the formation of the group impression (Brewer & Harasty, 1996; Lickel et al., 2000). In addition, Miller's law reveals that the average person can accurately hold seven items in their working memory (Miller, 1956). Therefore, both X and Y brands were crafted as moderately leveraged brands with an identically sized portfolio of seven products.

Specifically, the seven portfolio products of the X brand were in similar categories of dental care products, such as toothpastes, toothbrushes, and flosses. The considerations deemed important for the selection of the dental care products, mimicking Colgate, were their popularity and relevance. Colgate is a popular global brand used daily by a wide range of consumers of varying ages. Conversely, the seven portfolio products of the Y brand were in dissimilar categories, such as toothpastes, alkaline batteries, smartphones, LED monitors, facial tissues, light bulbs, and DVD players. Both brands originated from the same first brand of classic toothpastes but were leveraged in different directions. The X brand remained in categories relevant to dental care and became a high-similarity brand (narrow brand). In contrast, the Y brand was extended to various other categories and became a low-similarity brand (broad brand). The effect of the brand structure on the quality of the parent brand was captured by contrasting the quality of the parent brand information without (G brand) and with (X or Y brand) the list of portfolio products.

Anticavity toothpastes and pain relievers were identified as the operative typical and atypical extensions for the X (Ms = 5.27 and 2.51, $t(19) = -5.43$, $p < .001$) and Y (Ms = 5.12 and 1.60, $t(17) = -12.97$, $p < .001$) brands, respectively. The anticavity toothpaste was in the same product category as the classic toothpaste, the flagship product of both the X and Y brands, while the pain relievers were in a different category from any of the existing categories of the parent brands. As with the X and Y brands, the brand extensions were created using *Consumer Reports*' statements containing negative product information. Both the anticavity toothpaste (Ms = 2.11 and 4.07, $t(20) = -11.31$, $p < .001$) and the pain relievers (Ms = 2.07 and 4.07, $t(18) = -10.41$, $p < .001$) were perceived as unfavorable brand extensions.

Measures

Consistent with previous research (Crawford *et al*., 2002), brand similarity was investigated using a 9-point Likert scale with the statement, "the product categories of these seven portfolio products are similar

to each other." The X and Y brands were perceived as similar (or narrow) and dissimilar (or broad) brands, respectively (Ms = 8.51 and 1.81. $t(32) = 24.01$, $p < .001$).

The brand and extension quality were measured using three 7-point semantic differential attitude scales with endpoints labeled "low quality"/ "high quality", "unfavorable"/"favorable", and "undesirable"/"desirable" (Keller & Aaker, 1992; Kempf & Smith, 1998). The participants were asked to indicate their opinions about the brand by selecting a corresponding number on the scales. The brand and extension quality indices were formulated by averaging the values of these three attitude scales ($\alpha_s \geq .92$). The typicality of the brand extensions was measured using a single 7-point scale of typicality (Loken & John, 1993). Finally, the adverse extension effects were represented by the brand quality change index, which contrasted the prior and posterior brand quality.

Participants and Procedure

Overall, 165 U.S. residents (M_{age} = 35.23, SD = 9.72, 80 females, 85 males) participated in the study with a 2 (extension typicality: high vs. low) x 2 (brand breadth: narrow vs. broad) between-subjects experimental design. The data were collected online via M-Turk utilizing Qualtrics questionnaires. The participants started by rating the narrow or broad brand. Then they evaluated the unfavorable typical (i.e., anticavity toothpastes) or atypical (i.e., pain relievers) extension and reevaluated the narrow or broad brand. Finally, they were asked to write down any thoughts that they had about the narrow or broad brand.

Results

Hypotheses 1 and 2 state that the accessibility of negative extension information in narrow brands is higher than that in broad brands, regardless of extension typicality. As a result, the adverse effect of negative extension information on narrow brands is more pronounced than that on broad brands, regardless of extension typicality. To test the hypotheses, the accessibility of the unfavorable extension information was identified by the frequency and primacy (whether it was stated in the first two thoughts) of the extension-related cognitions in the participants' listed thoughts (Ahluwalia & Gurhan-Canli, 2000; Higgins *et al.*, 1982). Two independent judges identified the number and primacy of the extension-related thoughts in the thought-listing task. One-way ANOVAs on the frequency of extension-related thoughts yielded the main effect of brand breadth on both of the information accessibilities of unfavorable typical (M_{narrow} = 1.91, M_{broad} = 1.28, $F(1, 79) = 4.51$, $p < .05$) and atypical extensions (M_{narrow} = 1.37, M_{broad} = .62, $F(1, 82) = 20.10$, $p < .001$). The participants generated more thoughts about the unfavorable typical and atypical extensions of narrow brands than those of broad brands.

To test the primacy effect of accessibility, an arcsine-square root transformation of the percentage of respondents who indicated extension-related information in the first two thoughts was performed to normalize the distribution of the percent data (Ahluwalia & Gurhan-Canli, 2000; Higgins *et al*., 1982). One-way ANOVAs on the transformed percentage yielded the main effect of brand breadth for unfavorable typical (M_{narrow} = .72, M_{broad} = .31, $F(1, 79) = 9.87$, $p < .01$) and atypical extensions (M_{narrow} = .39, M_{broad} = .07, $F(1, 82) = 16.27$, $p < .001$). A higher percentage of participants generated extension-related thoughts earlier in the narrow brand conditions than in the broad brand conditions.

Both tests of the frequency and primacy of extension-related thoughts reveal that the accessibility of the adverse extension information of narrow brands is higher than that of broad brands, regardless of extension typicality. As a result, hypothesis 1 was confirmed. The results explain that the adverse effects of unfavorable extensions on narrow brands were more pronounced than those on broad brands, regardless of extension typicality (M_{narrow} = -2.17. M_{broad} = -1.07, $F(1, 79) = 12.65$, $p < .001$; M_{narrow} = -2.03, M_{broad} = -1.08, $F(1, 82) = 8.20$, $p < .01$). As a result, hypothesis 2 was confirmed.

DISCUSSION

The research results reveal that, regardless of extension typicality, the accessibility of unfavorable extension information of narrow brands is higher than that of broad brands. As a result, negative extension information exerts more adverse effects on narrow brands than on broad brands. The findings verified that

narrow brands are high-similarity brands implying the existence of obvious underlying essence, which facilitates the spontaneous processing of negative extension information. Contrarily, broad brands are low-similarity brands implying the lack of underlying essence, which leads to less spontaneous processing of negative extension information.

Moreover, the findings suggest that developing narrow brands by leveraging typical extensions is presumably easier and less risky than developing broad brands by leveraging atypical extensions because leveraging typical extensions deserves less production capability than leveraging atypical extensions for producers. However, the leveraged typical extensions will be more detrimental to narrow brands than to broad brands if the typical extensions are unfavorable or unsuccessful (negative extension information) because the accessibility of negative extension information is higher in narrow brands than in broad brands, which exerts stronger negative impacts on narrow brands than on broad brands.

The discussion of this study specifies the accessibility of negative typical and atypical extension information. It is still unknow about the accessibility of positive typical and atypical extension information and its impacts on brand evaluations. Future research may be conducted to compare the differences of accessibility between positive and negative extension information and their influences on narrow and broad brands.

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