

# 行政院國家科學委員會專題研究計畫 期中進度報告

## 實體性認知對家族品牌延伸的反饋效果之研究(1/2)

計畫類別：個別型計畫

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計畫主持人：樓永堅

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## ABSTRACT

Based on group impression formation and accessibility-diagnostics theories, four experimental hypotheses are developed to examine the intermediating roles of perceived entitativity, information valence, and categorical similarity on family brand evaluations with laboratory experiments under high accessibility situations. Research findings indicate that both high and low entitative family brands are sensitive to positive and negative extensions, regardless of the categorical similarity of brand extensions and the perceived entitativity of family brands. However, while both high and low entitative family brands are diluted or enhanced by brand extensions, extension information is more influential on high (vs. low) entitative family brands.

**Key Words :** entitativity, brand extension

## INTRODUCTION

Research in family brand evaluations uncovers that the reciprocal effects of brand extensions on family brands are moderated by the categorical similarity of brand extensions to their family brands, the accessibility and diagnosticity of brand extension information. When the accessibility of brand extension information is high, brand extension information is more influential than the contextual factor of categorical similarity on family brand evaluations. Recent years, a considerable amount of attentions in research of social cognition has been given to the influences of *new* group members on the impression formation of social groups with high and low perceived entitativity. Research findings indicate that trait transference from group members to group impression is more significant for high entitative groups, which suggest that information about new group members is more influential to the group impression formation of high (vs. low) entitative groups. The findings also suggest that, other than the moderator of similarity, group impression formation is also moderated by the perceived entitativity of groups. Similar to social cognition research, the interaction coherence among brand extensions may affect the perceived entitativity of family brands, which will moderate the reciprocal effects on family brand evaluations. Family brands with different perceived entitativity may react differently to same brand extension information. Therefore, the perceived entitativity appears an important moderator of the reciprocal effects of brand extensions on family brand evaluations.

## THEORETICAL BACKGROUND AND HYPOTHESIS

### ***A. Reciprocal effects on family brands:***

Previous research has verified that the accessibility of brand extension information is more diagnostic than categorical similarity on the family brand evaluations when the accessibility of brand extension information is high (Ahluwalia and Gurhan-Canli 2000; Feldman and Lynch 1988). Under high accessible situations, perceivers engage in systematic or piecemeal processing (Chen and Chaiken 1999) to integrate new external information for the formation of group impression. Accessibility refers to the activation potential of stored knowledge (Higgins 1989) and is manipulated either by the nature of product experience (direct vs. indirect) or the

confusing tasks with intervening materials. For high accessibility situations, reciprocal effects on family brands are measured immediately after the experimental treatments of brand extensions when respondents' memories about the extension information is high. As recently activated brand extension information is highly accessible, highly accessible brand extension information is perceived as more diagnostic and may induce disproportionate impact on family brand evaluations (Higgins, King, and Mavin 1982). The strong impact of highly accessible information may out-weigh the contextual information of the perceived entitativity of family brands and the categorical similarity of brand extensions and eventually dominates family brand evaluations. Consumers' attitudes toward family brands will be diluted by negative extension information and be enhanced by positive extension information, irrespective of the contextual information of category similarity and perceived entitativity. Therefore,

H1: When the accessibility of extension information is high, family brands are diluted by negative extension information, regardless of the categorical similarity of brand extensions and the perceived entitativity of family brands.

H2: When the accessibility of extension information is high, family brands are enhanced by positive extension information, regardless of the categorical similarity of brand extensions and the perceived entitativity of family brands.

***B. Reciprocal effects on high and low entitative family brands:***

In research of social cognition, perceived entitativity is verified as an important factor affects group impression formation (Crawford, Sherman, and Hamilton 2002; Lickel et al. 2000; McConnell and Sherman 1997). Traits of individual members become associated with the group as a whole through a process of stereotyping, and this general group impression then becomes associated with the individual members of the group. Moreover, the trait inferences for individual members become associated directly with all other members of the group. For a high entitative group, the individual traits that are inferred come to be associated with the group and with other members of the group via stereotyping. Once the traits are abstracted from the behaviors of individual members, they are processed in terms of this group impression, instead of as individuals. For low entitative groups, the information processing may stop at the level of individual trait inference. The trait transference from individual members to the group and other group members are not made. Similar to the group impression formation, family brand images normally are comprised of a collection of abstractions about brand extensions, such as quality and gentleness, which are abstracted from the product attributes of individual brand extensions and then transferred to the family brands and other brand extensions. Attribute transferences from individual brand extensions to family brands should be more significant for high entitative family brands, because trait transferences from group members to the group and group members are stronger for high (vs. low) entitative groups (Crawford, Sherman, and Hamilton 2002). Hence,

H3. When the accessibility of extension information is high, negative extension information

is more influential on high (vs. low) entitative family brand.

H4. When the accessibility of extension information is high, positive extension information is more influential on high (vs. low) entitative family brand.

## METHOD: LABORATORY EXPERIMENT

### *Experimental design*

This study is a 2 (information valences: positive, negative) x 2 (categorical similarity: close, far) x 2 (perceived entitativity: high, low) between-subject experimental design to verify the four hypotheses in high accessibility situations. A total of two hundred and seventy three subjects participate in this research, including two hundred and five respondents in the eight experimental groups (Tables 1 and 2) and sixty eight respondents in pre-tests.

The first factor of the experiments is the valences (positive vs. negative) of brand extension information in semantic format of Consumer Reports. The second factor is the two extension categories of anticavity toothpastes (close) and pain relievers (far). The third factor is the perceived entitativity of the two hypothesized family brands of XXX (high entitative) and YYY (low entitative).

Table 1 Experimental design: reciprocal effects of *positive* extension information

Entitativity \ Similarity	Positive extension information	
	Close	Far
High entitative	<i>Group 1</i>	<i>Group 2</i>
Low entitative	<i>Group 5</i>	<i>Group 6</i>

Table 2 Experimental design: reciprocal effects of *negative* extension information

Entitativity \ Similarity	Negative extension information	
	Close	Far
High entitative	<i>Group 3</i>	<i>Group 4</i>
Low entitative	<i>Group 7</i>	<i>Group 8</i>

### *Procedure*

Two hundred and five undergraduates in a Northern Taiwan University received partial course credits for participating in the experiments. Participants were randomly allocated to the 8 (2x2x2) experimental situations (Tables 1 and 2). In the beginning of the experiments, participants were provided with semantic information about high (XXX) or low (YYY) entitative family brand. Based on the semantic information of family brands, participants evaluated the family brand with attitude and perceived entitativity measures followed by a verification task containing fill-in-the-blank questions about the information of family brands. The verification task was designed to verify participants' involvements of the experiments and comprehensions

about the family brand information. Only those who gave the right answers were allowed to proceed on the following experimental treatments of extension information. Those who didn't answer the questions completely right were dismissed with excuses. Following the verification task, participants evaluated the new launched brand extensions based on the semantic information in Consumer Reports formats. Finally, the participants re-evaluated the family brands *immediately* after the evaluations of new brand extensions with the identical attitude measures of family brands before the experimental treatments.

## RESULTS

### *Manipulation checks*

The Levene's tests of equality of error variances indicate that the error variances across the first set of four experimental groups for XXX family brand ( $F = .93, p > .05$ ) and the second set of four experimental groups for YYY family brand ( $F = .51, p > .05$ ) are equal respectively, which indicate that the experimental groups are homogenous. Moreover, the perceived entitativity of XXX family brand and YYY family brand ( $M_{XXX} = 6.44, M_{YYY} = 2.86$ ) is significantly different from each other ( $t = 11.94, p < .001$ ). The valences of positive and negative brand extensions of anticavity toothpastes are significantly different from each other ( $M_{positive} = 5.78, M_{negative} = 2.23, t = -15.93, p < .001$ ). Also, the valences of positive ( $M = 5.34$ ) and negative ( $M = 2.38$ ) brand extensions of pain relievers are significantly different from each other ( $t = -12.67, p < .001$ ). The results indicate that the independent variables are manipulated appropriately.

### *Hypothesis testing*

A three-way ANOVA on attitude changes toward family brands yields a significant main effect of the valences of brand extensions ( $F = 317.42, p < .001$ ) and a main effect of the perceived entitativity of family brands ( $F = 18.13, p < .001$ ). However, the main effect of category similarity, the two-way interaction effects among the three factors ( $F_{similarity*entitativity} = .03, p > .05$ ;  $F_{similarity*valence} = 1.23, p > .05$ ;  $F_{entitativity*valence} = .14, p > .05$ ), and the three-way interaction effect of the three factors ( $F = .05, p > .05$ ) are all insignificant. The results indicate that attitudes toward family brands are moderated by the valences of extension information and the perceived entitativity of family brands.

#### A. Negative reciprocal effects on family brands (H1 and H3)

Paired t-tests on the attitudes toward family brands before and after the experimental treatments indicate that attitudes toward XXX or YYY family brands among the four experimental groups (Groups 3, 4, 7 and 8) with the experimental treatments of negative close or negative far extension information are all weakened ( $t_{G3} = 8.04, p < .001$ ;  $t_{G4} = 7.46, p < .001$ ;  $t_{G7} = 8.01, p < .001$ ;  $t_{G8} = 8.01, p < .001$ ), regardless of the perceived entitativity of family brands and the similarity of brand extensions. Therefore, hypothesis one (H1) is supported. Moreover, a two-way ANOVA on attitude changes yields a significant main effect of perceived entitativity ( $F = 9.76, p < .01$ ). However, both the main effect of categorical similarity and the interaction

effect of category and perceived entitativity are insignificant ( $F_{\text{similarity}} = 1.18, p > .05$ ;  $F_{\text{similarity*entitativity}} = .00, p > .05$ ). The results suggest that while both high and low entitative family brands are diluted, the influences of negative extension information on the two family brands are different. A further analysis of one-way ANOVA on attitude changes yields a significant main effect of perceived entitativity on the attitude changes of family brands ( $M_{\text{high}} = -1.76, M_{\text{low}} = -1.16, F = 10.40, p < .01$ ). The results suggest that negative extension information is more influential on high (vs. low) entitative family brand. Therefore, hypothesis three (H3) is supported.

#### B. Positive reciprocal effects on family brands (H2 and H4)

Paired t-tests on the attitudes toward family brands before and after experimental treatments indicate that attitudes toward XXX or YYY family brands among the four experimental groups (Groups 1, 2, 5, and 6) with the experimental treatments of positive close or positive far extension information are all enhanced ( $t_{G1} = -3.92, p < .01$ ;  $t_{G2} = -6.32, p < .001$ ;  $t_{G5} = -5.61, p < .001$ ;  $t_{G6} = -5.83, p < .001$ ), regardless of the perceived entitativity of family brands and the similarity of brand extensions. Therefore, hypothesis two (H2) is supported. Moreover, a two-way ANOVA on attitude changes yields a significant main effect of perceived entitativity ( $F = 9.51, p < .01$ ). However, both the main effect of category similarity and the interaction effect of category and perceived entitativity are insignificant ( $F_{\text{similarity}} = .23, p > .05$ ;  $F_{\text{similarity*entitativity}} = .09, p > .05$ ). The results suggest that while both attitudes toward high and low entitative family brands are enhanced, the influences of negative extension information on the two family brands are different. A further analysis of one-way ANOVA on attitude changes yields a significant main effect of perceived entitativity ( $M_{\text{high}} = 1.05, M_{\text{low}} = .57, F = 9.61, p < .01$ ). The results suggest that positive extension information is more influential on high (vs. low) entitative family brand. Therefore, hypothesis four (H4) is supported.

## **IMPLICATIONS AND LIMITATIONS**

### ***Theoretical Implications***

The research findings indicate that under high accessibility situations, the valences of brand extension information and the perceived entitativity of family brand moderate family brand evaluations. As the accessibility of extension information is high, the valence of extension information outweighs the contextual factors of categorical similarity and perceived entitativity on family brand evaluations. The attitudes toward family brands are either diluted by negative extension information or enhanced by positive extension information, regardless of categorical similarity and perceived entitativity. The findings are consistent with the findings of previous research in family brand evaluations (e.g., Ahluwalia and Gurhan-Canli 2000; Loken and John 1993). However, as attitude transferability is higher for high (vs. low) entitative groups (Crawfor et al. 2002), brand extension information is more influential on the attitude changes of high (vs. low) entitative family brands. A high entitative family brand is more significantly diluted by negative extension information and is more significantly enhanced by positive

extension information. Moreover, the research findings also indicate that the influence of extension information on well extended family brand, either high or low entitative family brands, is still significant under high accessibility situations. The results suggest that while the sequential effect of brand extensions is diminishing (Keller and Aaker 1992), the reciprocal effects of new brand extensions for well extended family brands are still significant.

### ***Managerial Implications***

As perceived entitativity moderates the reciprocal effects of brand extensions, the assessments about the reciprocal effects on family brand evaluations should consider the factor of the perceived entitativity of family brands. To build up a high (vs. low) entitative family brand by leveraging brand extensions to similar product categories providing similar product functions is much easier for marketers. The benefit is that consumers' attitudes are much easier to transfer from the original or parent brands to new similar brand extensions and consumers will have stronger intentions to try the new similar brand extensions. It is more secure for the successes of the new brand extensions. Moreover, the feedbacks of successful brand extensions may also more significantly improve consumers' attitudes toward the high (vs. low) entitative family brands. However, just like the two faces of swords, the drawback is that the negative reciprocal effects of new brand extensions can be more detrimental to high (vs. low) family brands if the new brand extensions are not successful.

### ***Limitations and Future Research***

This research examines the influences of the three factors of information valence, categorical similarity, and perceived entitativity on family brand evaluations under high accessibility situations. The psychological procedures of consumers' information processing are different for high and low accessibility situations. Consumers engage in piece-meal or systematic processing under high accessibility situations (Chen and Chaiken 1999) and in schema or heuristics-based processing under low accessibility situations. The diagnosticity of extension information for family brand evaluations is also different for high and low accessibility situations which induces different results of family brand evaluations (Ahluwalia and Gurhan-Canli 2000; Skowronski and Carlston 1987). Therefore, consumers' judgments about high and low entitative family brands may be different for different accessibility situations. Future research is needed to examine the effects of the three factors of categorical similarity, information valence, and perceived entitativity on family brand evaluations under low accessibility situations.



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