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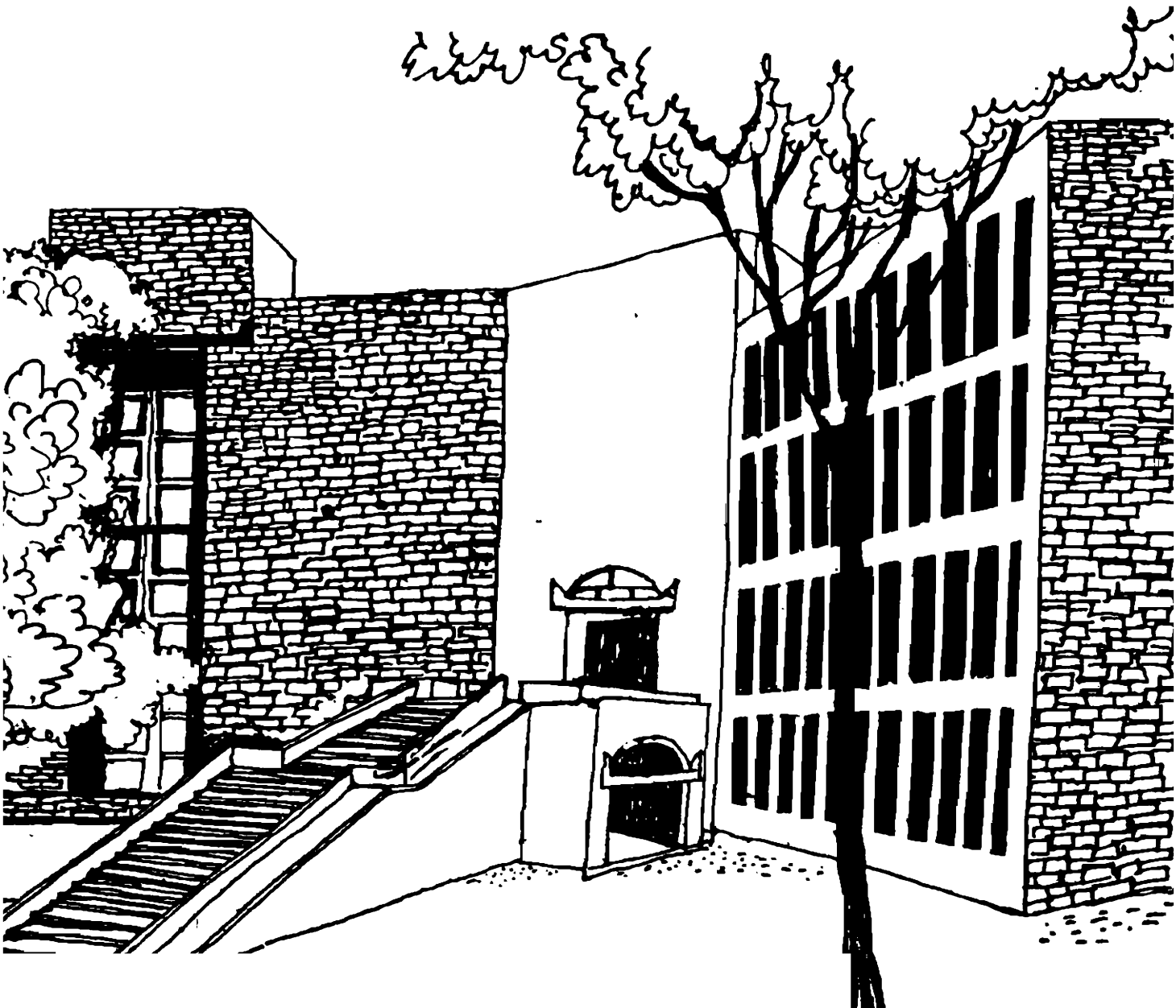
BRAND SPECIFIC ASSOCIATIONS AND
CONSUMER INVOLVEMENT IN THE
EVALUATION OF BRAND EXTENSIONS

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Brand Specific Associations and Consumer Involvement in the Evaluation of Brand Extensions[1]

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Abstract

Research in the area of brand extensions has focused on the themes of simple affect transfer and category based affect transfer to explain attitude towards the extension. Subsequent research stresses the importance of brand-specific associations in explaining attitude, and shows that brand-specific associations moderate the effect of brand affect and category similarity in the evaluation of an extension. This study examines the moderating role of brand-specific associations on brand affect in the evaluation of an extension under conditions of high and low consumer involvement in the extension category. We find that brand affect remains an important variable in explaining attitude towards the extension even in the presence of relevant brand-specific associations in the extension. We find that involvement does not have a direct effect on the attitude towards the extension. However, it moderates the effect of brand specific associations on brand affect in the evaluation of the extension. High involved consumers in the extension category rely on the main effects of brand affect, and relevance of association to form their attitude towards the extension, while the low involved consumers perceive the interaction between brand affect and relevance of association in forming their attitude. Thus, contrary to literature on involvement, results show that the process of evaluation of extensions is not different for low involved and high involved consumers. But consumers method of processing available information is different for varying levels of involvement.

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1. Introduction

The literature on brand extensions delineates the different mental processes used by consumers in the evaluation of brand extensions. The two main processes that prevail across a wide variety of studies are the simple affect transfer process and the category based affect transfer process. The simple affect transfer process contends that consumers who favorably evaluate a brand in its parent category will transfer affect from parent brand to extension, to form their overall evaluation of the extension. High *brand affect* for parent brand implies a more positive evaluation of the extension and vice-versa (Roman,1969; Neuhas & Taylor,1972).

The category based affect transfer process, on the other hand suggests that the evaluation of an extension is not a case of simple affect transfer. The consumer will look for a fit between parent and extension categories and transfer affect from parent brand to extension only if he/she perceives the categories to be similar with respect to some domains such as physical features, product characteristics, benefits, users, usage situations etc. (MacInnis, Nakamoto & Mani, 1992). High *similarity* between parent and extension categories implies a more positive evaluation of the extension and vice-versa (Tauber,1981,1988; Aaker & Keller,1990, Boush & Loken,1991; Park, Milberg & Lawson,1991)

Broniarczyk and Alba (1994) argue that evaluation of an extension is not dominated by the above two processes. They contend that consumers assess the ability of the extension to satisfy their needs and such assessments are based on the specific associations of the brand. They define a brand specific association as an attribute/ benefit that differentiates a brand from competing brands in the category as well as from the category itself. Their study suggests that brand-specific associations moderate the effects of brand affect and parent-extension category similarity (fit) in the consumers' evaluation of an extension, particularly when consumer knowledge of the brand is high.

This study examines the moderating role of brand-specific associations on brand affect in the evaluation of an extension under conditions of high and low consumer involvement in the extension category. Research on the moderating role of involvement in the evaluation of the extension has not yielded conclusive results so far. Gali (1993) did not find a main effect for involvement. Nijssen, Uijl, & Bucklin (1995) manipulated the involvement construct by choice of high involvement and low involvement extension product categories and found that the high involvement extension products were evaluated based on the supplier's perceived ability to manufacture the new product, while for low

involvement extension products, consumers relied on fit (product category similarity) for their evaluations. In the absence of adequately strong evidence on the role of involvement in the evaluation of the extension, we examine whether the consumer's involvement in the extension category influence his/her evaluation of the extension.

Empirical evidence in literature suggests that consumers' motivation to process information, which in turn is a function of consumers' involvement, can influence the process of evaluation of brand extensions. Aaker & Keller (1990) suggest that consumers might be expected to rely on perceived brand quality and brand familiarity as a peripheral cue in brand evaluation when the motivation to process information is low (cf. Petty & Cacioppo,1986). In this case, consumers may be likely to use halo bias or category based affect transfer as the underlying process to evaluate the extension. When perceived risk is higher, consumers may expend more time and effort in evaluating the extension following a different process. Hence it is likely that brand specific associations might moderate the effect of brand affect for consumers highly involved in the extension category, but this may not holdfor consumers less involved in the extension category. Such a proposition draws support from literature which suggests that high involved consumers expend more effort at every stage of the consumer decision making process. They search for more information (Zaichkowsky, 1985a; Laurent & Kapferer,1985a), evaluate alternatives better (Laurent & Kapferer,1985a; Houston & Rothschild,1978), generate higher number of cognitive responses during information processing (Park & Young,1986; Celsi & Olson,1988), and their change in attitude with respect to an object is also more predictive of behavior and resistant to counter persuasion when compared with less involved consumers (Petty & Cacioppo,1981, 1983; Beatty & Kahle,1988). Given the higher degree of importance they attach to the extension categories and the interest they evince in the category, it is more likely that they would be able to judge the appropriateness of the brand specific association in the extension category than the less involved consumers.

2. Hypothesis

In the light of the above discussion, we propose the following specific hypotheses.

H_1:   *In situations when brand effect tends to be low, higher the relevance of brand specific aassociation, an individual's attitude towards brand extension likely to be more positive.*

H_{1a} *Higher the brand affect, more positive is likely to be the individual's attitude towards the extension and vice-versa, irrespective of high or low relevance of the brand-specific association.*

H_2:   *Brand-specific associations are likely to moderate the effect of brand affect in the evaluation of extensions for consumers highly involved in the extension category compared to consumers less involved in the extension category.*

3. Research Design and Methodology

In order to test the above hypotheses, data was collected through an experiment adapted from Broniarczyk & Alba's (1994) study design. The design required extensive amount of pretesting to generate stimuli for the study. We describe below the different pretests that we conducted.

Pretest 1

A comprehensive list of 74 product categories and 518 corresponding brands in the fast moving consumer goods category was taken from the retail audit of the largest market research agency in India. The first pretest helped identify a comprehensive set of brands that fulfilled the following criteria:

(1)   Brands that were familiar to all consumers.

(2)   Brands that had specific associations that were highly salient, but not based on prestige (According to Park, Milberg & Lawson, 1991, prestige brand concepts have a greater ability to extend to dissimilar product classes than functional brand concepts, if the extensions are consistent with the brand concept. Thus use of brands with functional associations in the study would provide a stricter test of the hypothesis).

(3)   Brands that had associations that differentiated themself from their product categories as well as from other brands in those categories (mono-brands).

(4)   Brands that had not been extended previously.

Two doctoral students and four ordinary consumers sifted through the list and identified all the brands that met the above criteria. 28 product categories and 125 brands were shortlisted for the second pretest.

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Pretest 2

The second pretest used a free association task to identify the associations of the shortlisted categories and brands. Each respondent was given one to two minutes each. to provide associations to 15 brands/categories: 160 respondents were contacted in all. Two marketing doctoral students coded all the responses to the free association task[2]. If the brand was unfamiliar to 50% of the respondents, it was discarded. Brands that had weak associations or had associations similar to the category or another slightly stronger brand in the same category were also eliminated.

Pretest 3

As mentioned in pretest 1, categories with brands that were perceived to have prestige images had to be eliminated and the brands chosen had to differ in their measure of affect. Pretest 3 provided us with categories that had two brands with specific non-prestige associations, of which one was significantly less preferred than the second in the same category. Two seven-point scales namely, 'Dislike - Like' for affect, and 'Brand Image not at all relating to prestige - Brand Image relating very much to prestige' for prestige were used to measure these variables[3]. Means of the like scores and prestige scores were calculated. Difference of means for different combinations of brands in each category were calculated using both the t-test and the Mann-Whitney U Z statistic[4]. 13 pairs of brands from 6 categories showed significant differences in affect.

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[2] The strength of a brand's association was calculated as the number of mentions of the association by respondents divided by the number of respondents who were familiar with the brand

[3] Choice of seven point scales throughout the study was based on the following exercise. Two independent groups of 28-30 respondents were asked to rate 12 familiar brands for affect on nine point and seven point scales. To check if there was overuse of the neutral category in one scale vs the other. the proportion of responses at the neutral point of the scale was calculated for both groups. A one tailed test of difference of proportions for the two scales showed differences only in 2 out of the 12 cases. Given f ew differences with respect to the test of proportions. it was decided to use the seven point scales for measurement of variables in the study. Seven is also the modal number of response alternatives to the scale in a large number of studies reviewed by Paul Peter (1979).

On a seven point scale, a brand with a prestige score above 4 was considered as a prestige brand and it was surprising to find that commonly used brands like Parachute (category-hair oil), Polo (category-confectionery), Sunsilk (category- shampoo) and Lux (category - soap) had a prestige score above 4 on the scale. It seemed as if people had construed the word `prestige' to mean trustworthiness/ time-tested/ widely available and used etc. Since the brands to be chosen for the experiment had to be necessarily non-prestige, we decided to develop a scale for the prestige construct from the literature on prestige goods and the variable was measured again in Pretest 5.

Pretest 4

We generated extensions to the brands shortlisted from pretest 3 to make them amenable for hypothesis testing. In a brain storming session, the participants were first briefed about the study, and then given the brand name and its specific association established from the earlier pretests. Later, they were asked to identify possible areas of expansion, such that the brand's specific association would be relevant in the extension category. Three marketing doctoral students and 12 MBA students sifted through the total list of extensions generated from the brainstorming session. They rated the extensions on their similarity to the parent category on a seven point scale `Not similar - Very similar' and also rated the relevance of the parent brand's specific associations in the extension categories, on a seven point scale `Not at all relevant - Very relevant'.

Pretest 5

This pretest attempted to confirm all the original criteria set for the choice of brands in pretest 1. It also helped to select extensions for the brands to satisfy similarity and relevance manipulations. 143 consumers formed the sample for this final pretest. Of the 6 categories with 13 brand pairs showing significant differences in affect from pretest 3, only 5 pairs of brands from 5 categories were

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[4] For each of these pairs, the difference of means statistic was calculated for independent samples. To make sure that the samples chosen for calculating the statistic were similar on age, education, occupation and household income per month, two tests - the Kolmogorov-Smirnov test and the Chi-square test of independence were conducted. Results from both the tests confirmed that the hypothesis that the two groups came from populations with the same distributions on the demographic variables.

evaluated in this pretest. The choice of the categories and specific brand pairs was based on whether both brands in the pair had strong associations[5] and whether it was possible to generate plausible extensions to the brands.

To confirm the brand-association linkage, pretest 5 had an aided recall question where respondents were asked whether they perceived the chosen brands to be associated with the specific association established from the earlier pretests.

Literature on prestige brands (Lawrence. 1990; Garfein, 1989; Hinkel. 1986; Harlib and Ceppos. 1981) was reviewed to develop the scale to measure prestige. A prestige oriented brand concept is also understood in terms of the consumer's expression of self concept or images (Park, Milberg and Lawson, 1991). Hence research in self concept (Sirgy, 1985) was also reviewed to develop the following six item scale for measuring prestige.

1. This brand is a luxury brand.

2. This brand provides high status.

3. Using this brand would make a person appear classy and sophisticated in the eyes of society.

4. This brand is bought more for the image it creates than for its usefulness.

5. This brand is used only by a select group of high income persons.

6. This brand is very expensive.

Finally, the involvement scale (Revised Personal Involvement Inventory - RPII) that was to be used for the study was also tested out in this last pretest for its validity and reliability. Ratings were obtained to two product categories - Color television. a high involvement product and Toothpaste. a low involvement product.

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[5] Brand pairs with strong but complementary associations had to be dropped. For e.g. the only brand pair in the category of digestives was Swad-Pudin Hara. The associations of the brands were very complementary to each other (Pudin Hara-relieves stomach pain and Swad- digestive) and synonymous with the category of digestives. Hence. it was not possible to generate extensions for both brands in such a way that the association of Pudin Hara would be relevant for the extension. while the association of Swad would not be relevant for the same extension.

Aided Recall of Associations

Aided recall of brand-specific associations for the brands was above 75 % except one specific brand of toilet soap (Jai) which had a aided recall of only 53% for its strongest association (Fragrance of flowers)

Prestige Scores for the brands

The reliability coefficient - Cronbach's alpha of the prestige scale was above 0.75 for all except 2 brands in the study. A principal components factor analysis on the prestige scores extracted one factor explaining 61.4 % of the variance, but item number 4 on the scale ('This brand is bought more for the image it creates than its usefulness') had the lowest loading on the factor. Its communality was also low and it correlated the least with the other items on the scale. The reliability of the six item scale was 0.8638 and when item no. 4 was dropped, the reliability of the scale increased to 0.8899. Hence, this item was dropped from the scale in the final instrument and prestige was measured on a five item scale. Given that the reliability of the scale was quite high and the items on the scale were highly correlated among themselves, the ratings to each of the items were averaged to arrive at a consolidated prestige score for the brand. On a seven point scale, none of the brands had a mean rating above 4 on the five item scale. All the brands chosen were hence non-prestige in nature.

Reliability of the Involvement scale

The reliability coefficient of the involvement scale (the revised product involvement inventory - RPII) across the two products - color television and toothpaste was 0.8061 and that for the importance and interest sub-scales was 0.7718 and 0.7804 respectively. A principal component factor analysis with varimax rotation extracted two factors. The first factor was the interest factor explaining 38.2 % of the variance in the data and the second was the importance factor explaining 19 % of the variance in the data. Only one item on the interest dimension viz. " Dull-Neat " loaded higher on the second factor than the first factor. We had envisaged problems with this item in the scale before the administration of the scale itself. It was expected that the Indian consumers would not be able to perceive the meaning of the word pair "Dull - Neat" in the same way as it was perceived in the western context. Hence the fact that this item did not load on the interest dimension was not much of a surprise.

For the individual products, the reliability coefficient for RPII and its subscales ranged between 0.73 and 0.87. Such a dip in the reliability for RPII and its sub-scales to the low or mid 80's is observed in literature as well (McQuarrie & Munson, 1992). A principal component factor analysis with varimax rotation performed on the individual responses for the two products showed that there were three factors explaining 66.9% of the variance in the data for toothpaste and 74.6% of the variance for the color television category respectively. These factors had a combination of interest and importance items, as against the two factor structure of importance and interest items expected from literature.

Relevance of parent brand associations in the extensions

The relevance of the parent brand's associations in the extension categories was measured on a seven point scale "Not relevant - Very relevant" and an extension category with a rating above 4 on relevance was considered to be a category for which consumers perceived the parent brand's associations to be relevant for the extension.

Based on the results of pretest 5, brands and their extensions were selected for the final study. They are listed in Table 1.

Insert Table 1

Study Design

A 2 x 2 x 4 x 2 (brand affect x relevance of the brand-specific association in the extension category x product category x set) design was used (Broniarczyk and Alba, 1994).

Brand Affect was a between subjects factor and contrasted the less preferred experimental brand to the more preferred control brand in a product category. For example, in Table 1, we have two brands in the confectionery category - Coffee Bite and Polo, such that Coffee Bite was more preferred to Polo. Similarly, set° was a between subjects factor, that varied among subjects on the categories into

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[6] *Set* here implies a combination of two extensions that each respondent evaluates, such that the brand specific association of the experimental brand is relevant for one extension and the brand specific association of the control brand is relevant

which the brands were extended. The extensions for the two brands in this case were chocolate bar, coffee, breathmints, and mouth freshener. Coffee Bite's association of 'coffee satisfaction in a chocolate' was relevant for the first two extensions while Polo's association of 'mint' was relevant for breathmints and mouth freshener. The set and product categories were also replication factors. Product category was a within-subject replication factor consisting of the four product categories that survived all pretests.

Thus at the individual level, each subject evaluated one brand from each of the four product categories in either of the two sets of extension categories. As stated before, one extension category in each set was consistent with the experimental brand's association while the other extension category was consistent with the control brand's association.

Four versions of the questionnaire were prepared and administered to 45 respondents each. The first version contained one set of extensions paired with the control brand, and the second version had the second set of extensions paired with the experimental brand. In the third and fourth versions of the questionnaire, the set of extensions paired with the control and experimental brands were reversed. In a paper and pencil exercise, the respondents provided their responses to the variables of attitude towards the extension, attitude towards parent brand, relevance of association in extension, and similarity between parent and extension categories. The different measures to these variables are summarized in table 2. The measures for the variables of relevance of association, similarity between parent and extension categories and affect towards parent brand acted as manipulation checks for the different manipulations in the study. Since brand prestige and extent of use of the extension category could have a direct bearing on the attitude towards the extension for a respondent, these variables were taken as covariates. Prestige status of the brand was measured using the scale developed in the pretests and extent of use of the category was measured on a seven point scale "Do not use the product at all - Use the product regularly". The McQuarrie and Munson (1992) RPII scale was used to measure the individual's involvement in the extension category and in the end, some demographic data on age,

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for the other extension. One set for the brands Coffee Bite and Polo could be chocolate bar and mouth freshener, while the other set might be coffee and breathmints.

education, gender, occupation, and household income was obtained from all the 180 respondents.

5. Results

Manipulation checks

Since there were four versions of the questionnaire, a kruskal wallis one way Anova was used to check if respondents in all versions were similar in terms of their demographic characteristics. There were significant differences among the four versions with respect to the variables of gender and education. Across the total sample of 180 in the study, there were 100 male respondents and 80 female respondents, but the distribution was slightly skewed with respect to certain versions. Since the brands and product categories used in the study were not exclusively used by only males or females, these differences across versions was not of much concern. As far as the parameter of education was concerned, 75-80% respondents in each version of the questionnaire were graduates or post graduates and the differences arose from presence of a few respondents with a high school degree or a Phd. degree in some versions. This was also not of much concern given the kind of categories used in the study.

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Strength of Brand Specific Association

The strength of the brand specific association was measured on a seven point scale - "1=Associated with the product class" to "7=Uniquely associated with the brand" and the means for each of the brands on this measure was above the scale midpoint of 4.00 implying that the associations were considered more specific and unique to the brand than to the product category (Table 3). Thus the manipulation check is consistent with the pretest.

t-Tests for Independent Samples to ascertain Brand Preference

Affect towards the parent brand was measured on three 7 point measures and the correlation between these measures was 0.83. Hence an unweighted mean of these measures was used to

operationalise the variable of brand affect. The control brand was more preferred to the experimental brand in the rub and balm, soap (p<.000) and shampoo (p<.06) categories. The significant difference in preference was not visible only in the confectionery category and hence the category was dropped from the analysis. Thus the results of the manipulation check were consistent with that of the pretest for three out of four categories in the study.

Relevance of Brand Specific Association in Extension category

Relevance of association for the extension was measured with the help of two measures used in the study. Mean scores on each measure are reported in table 3 for each extension. The brand specific association was relevant in each extension category on both measures with values above 4.00 on measure 1 (RaImp) and above 20.00 on measure 2 (RaCombn). Only in the case of lip gel, the value fell slightly short of 20.00 on measure 2. This manipulation check was also consistent with the pretests.

Similarity of Extensions to parent categories

With respect to the measure, 'similarity by physical features' (SimPF), the different parent-extension category pairs were perceived to be at the same level of similarity in the different versions of the questionnaire. For example, a respondent who responded to version 1 of the questionnaire, provided his attitude towards Iodex medicated plaster and a score for 'similarity on physical features' for the parent-extension category pair, Rub and balm - Medicated plaster. Similarly another respondent who responded to version 3 of the questionnaire, provided his attitude towards Krack medicated plaster and a score on similarity for the same parent-extension category pair. When these scores were matched with each other, we found that the extension category medicated plaster was perceived to be similar to the parent category - rub and balm, by respondents to both the versions of the questionnaire. This holds for all category pairs except one extension category viz. lip gel. It is perceived by respondents to be similar to the rub and balm category in one version while it is perceived to be dissimilar to the same category in another version. For each of the product categories chosen for the study, viz. soap, shampoo, and rub & balm, all the extension categories chosen (except conditioner⁻) are similar to their respective parent categories. Thus we controlled for the similarity manipulation in

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⁻ Conditioner is perceived to be a line extension to shampoo in both the versions of the study

the study. This would ensure that there would be no confounding effect of similarity when we check for the moderating effect of brand-specific associations on brand affect in the evaluation of the extension.

Do Brand Specific associations moderate the effect of brand affect in evaluation of an extension?

For the purposes of analysis, the design was treated as a nested design with brand affect (BA), relevance of association (RA) and set as nested within the product category (PC). Prestige scores for the parent brands (PRES) and the extent of use of the extension category (USE) were taken as covariates. The prestige score for all the brands in the study was below the scale midpoint of 4 implying that none of the brands was considered to be prestigious in the final study. This is another consistency with the pretests.

The GLM (General linear model) results for an ANCOVA are presented in Appendix 1. One of the most important assumptions of an ANCOVA is the independence of the covariates and independent variables[8]. Results in appendix 1 show that *use* interacts with the *relevance of association* at 10% level of significance for the models estimated for the aggregate data and for low involved consumers. When the model was estimated for extensions from each parent category, there was an interaction of *prestige* with *relevance of association* at 10% level of significance in the shampoo category and an interaction of *Use* with *relevance of association* at 5% level of significance in the soap category. Hence the ANCOVA procedure with continuous variates may not be appropriate. However, it was evident from this analysis that the covariates were significant and hence needed to be contended with.

One of the alternatives suggested to overcome this problem is blocking i.e. grouping respondents according to their scores on the covariates (Tabaschnik and Fidell, 1996). Hence with the help of a frequency distribution of the respondents, on the covariates of prestige and use of extension

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[8] This assumption is termed *homogeneity of regression* and it requires that there should be no interaction between the covariates and the independent variables.

category, each covariate was divided into three levels. The prestige covariate was converted into a blocking independent variable called GrpPres and its three levels corresponded to

i)   < 1.8   - Level 1
ii)   >= 1.8 and < 3.4   - Level 2
iii)   >= 3.4   - Level 3

The use covariate was also converted into a blocking variable GrpUse and its three levels corresponded to

i)   < 4   - Level 1
ii)   >= 4 and < 6   - Level 2
iii)   >= 6   - Level 3

Groups of subjects under these levels became the levels of a full scale independent variable in the design. We did not specify a full model with all main and interaction effects for the analysis. Main effects and interaction effects were specified on the basis of their theoretical relevance and practical significance[9]. A one-way ANOVA of the dependent variable 'attitude towards the extension' with the different demographic variables of gender, age, education, occupation, and household income per month showed that there were significant differences in the dependent variable with respect to gender $(F=13.59, p<.0002)$ and age $(F= 4.189, p<.0022)$. Given that the attitude towards the extension differed significantly with respect to some of the demographic variables, we also introduced the demographic variables as independent variables in the general linear model. The results of the model estimated for the total data are presented in Table 4[10].

Insert Table 4

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[9] The list of all effects specified in the model are PC, BA, RA, SET, GrpPres, GrpUse, BA x RA, RA x SET, BA x RA x SET, BA x GrpPres, BA x GrpUse, RA x GrpPres, RA x GrpUse.

[10] The tables in the paper present only significant effects from the model estimated.

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There was a significant main effect of product category (PC) implying that the extensions from all the product categories were not equally liked. Significant main effects were also found for brand affect (BA) and relevance of association (RA) implying that extensions would be more preferred if they were associated with a brand with high affect and if they were related to the specific associations of the brand. The interaction of brand affect & relevance of association (BA x RA) was also significant implying that brand specific associations moderated the effect of brand affect in the evaluation of an extension. The results thus confirmed our first hypothesis. Main effects were also obtained for the prestige (GrpPres) and use (GrpUse) variables implying that the prestige status of the parent brand and extensive use of the extension category could also play an important role in the positive evaluation of an extension. Among the different demographic variables, only the variable of gender was significant for the total data. Interaction effects of brand affect and relevance of association were specified in the model with blocking variables of prestige and use but they were not significant.

Moderating role of involvement in the evaluation of an extension

We first converted the continuous variable of involvement into a blocking variable - *GrpInvol;* to check whether it had a moderating role, as hypothesized in the study. The mean of the variable involvement across the study was 4.8. Hence we blocked involvement as a variable with two levels - high involvement, if the value was greater than or equal to 4.8 and low involvement, if the value was less than 4.8. We estimated the general linear model-ANOVA[11] with the added main effect of Grpinvol, interactions of BA, RA, SET, BA x RA, RA x SET, BA x RA x SET with GrpInvol and interaction of all demographic variables with GrpInvol.

Insert Table 5

As is evident from Table 5, main effects of PC, BA, RA, SET, gender, prestige (GrpPres) and use (GrpUse) were significant in the model. The interaction effects of BA x RA, and BA x RA x SET

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[11] This model contains all the other effects specified earlier including demographics.

were also significant. There was no main effect for GrpInvol. Hence involvement in the extension category may not directly affect the evaluation of an extension by a consumer. However, we found that the BA x RA x GrpInvol interaction was significant. This implies that involvement does have a moderating role on the effect of BA x RA on the attitude towards the extension. Thus, consumers with different levels of involvement may not perceive the effect of BA x RA equivalently in their evaluation of the extension. Thus our hypothesis is partially' confirmed. The GrpInvol x Set interaction was significant implying that consumers' involvement levels for the two sets of extensions was different. The interaction of GrpInvol with the demographic variables of age and education was also significant implying that the levels of involvement in the extension category may be different at different ages and levels of education. This is understandable since one may be involved in particular categories like chewing gum, lozenges or perfume in particular age groups. Education may be one of the variables which affects an individual's motivation and ability to process information. This motivation and ability moderates the effect of antecedents leading to involvement (Andrews, Durvasula and Akhter, 1990) and hence there is reason to believe that one could experience varying levels of involvement at different levels of education.

Given that we found a moderating role for involvement, we estimated the model for the data split into high and low involvement groups. Table 6 presents results of the model for both groups. We found that main effects of prestige of the parent brand and use of the extension category were significant across both high and low involvement groups. For the high involvement group, the main effects of PC, BA, RA and SET were significant. Thus, high involved consumers did not evaluate the extensions from each parent category equally and a main effect for SET also implies that they favored one set of extensions over the other in the study. Significant main effects for brand affect (BA) and extension relevance (RA) imply that extensions would be more preferred if they were associated with a brand with high affect and if they were related to the specific associations of the brand.

For the low involved consumer, we found a main effect for RA but no main effect for BA. The interaction effect of BA x RA was also significant. Absence of main effects of product category (PC) and set imply that all the extensions in the study from different categories and sets were evaluated equally well by the low involved consumers. A significant interaction effect of brand affect & relevance of association (BA x RA) indicates that brand specific associations moderate the effect of brand affect

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in the evaluation of extensions for the low involved consumers, contrary to our initial hypothesis on the moderating role of involvement.

We also found that for the high involved consumer, the demographic variables of gender, age and education were significant. For the low involved consumer, none of the demographic variables were significant.

Insert Table 6

From the above results, we can say that the high involved consumers were more discerning than low involved consumers since they did not evaluate extensions from all parent categories equally, nor did they perceive all extension sets used in the study favorably. The results also signify that the high involved consumers perceived the main effects of brand affect and relevance of association separately and based their evaluation of the extension on these discrete effects. They did not perceive the BA x RA interaction because the effect of the interaction was subsumed in the significant main effects. On the other hand, for the low involved consumer, there was a main effect of relevance of association (RA) and an interaction effect of BA x RA. At the outset, this result warns the marketer against attributing the simple affect transfer process to the low involved consumers for evaluation of the extension. The BA x RA interaction perceived by the group strengthens this argument. It states that though consumers may be less involved in the extension category, they still processed enough information to determine the relevance of a brand's association in the extension category, even if the parent brand was a less preferred brand in its own category. This discussion substantiates the absence of a main effect for involvement in the total data. Hence, the differences between the high involved and low involved consumers was not in terms of different themes of evaluation of the extension, but with respect to the way in which the information was processed by both groups.

Do Brand Specific Associations moderate Brand Affect for extensions from each parent product category ?

The General Linear Model - ANOVA was also estimated for extensions from each parent category and the significant effects for three categories are summarized in table 7.

The covariates were significant in each category; extent of use of the product category was significant in all the three categories implying the attitude towards an extension is a function of an

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individual's usage of that category. Similarly, prestige of parent brand was significant in the soap category. Though the parent brands were all low on prestige, a significant main effect of prestige for the soap category indicates that an individual's attitude towards the extension depends on how prestigious he/she considers the parent brand in the soap category.

Insert Table 7

We looked for the *brand affect X relevance of association* interaction because it examines whether brand preference in the extended category was moderated by the relevance of a brand's specific associations.

For the *rub and balm category* the interaction effects of *brand affect X relevance of association* and *brand affect X relevance of association X set* were both significant. When the GLM - ANOVA was estimated for this product category with GrpInvol, both the main effect of GrpInvol and the interaction effect of *GrpInvol x BA x RA* were not significant implying that involvement did not directly affect attitude towards the extension and it also did not have a moderating effect with regard to the perception of BA x RA in the rub and balm category. Hence, when the data was split on the variable of involvement for this product category, a subset of the main effects were significant for the high and low involved consumers. For the high involved consumers, only the main effects of demographic variables of age and education were significant at 5% and 10% level of significance, while the main effect of use was significant for the low involved consumers. The extension categories evaluated from the rub and balm category are medicated plaster, pain killer tablets, winter cream and lip gel and the results suggested that high involved consumers from different age and income categories might evaluate them differently, while extent of usage of these categories was the only factor driving attitude towards extensions for low involved consumers of these categories.

For the *shampoo* category, the interaction of *brand affect & relevance of association* was significant. This implies that consumers did not evaluate an extension merely on the basis of affect towards the parent brand, but also considered the relevance of the brand's specific associations in the extension category. Relevance of association was a significant main effect in the shampoo category indicating that the extensions were more preferred if they were related to the specific associations of

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the brand. There was a main effect of gender and use of extension category and an interaction effect of *RA x Prestige*. Thus males and females might perceive extensions from the shampoo category differently, based on the gender effect and relevance of association may also be able to moderate the effect of prestige on the attitude towards the extension.

We split the data on the variable of gender since it was a significant main effect for the model for the shampoo category. We found that the main effects of use of the extension category, involvement in the extension category, RA, SET and the interaction effect of BA x RA were significant for males while only the main effect of RA was significant for females. Thus females seemed to adopt an extremely rational approach to the evaluation of extensions like conditioner, medicated bath soap, hair cream and tik shampoo for dogs while males tended to rely on other aspects as use of the categories, involvement in the extension category and also perceived the interaction of BA x RA to make their judgment.

When the GLM was estimated for this product category with GrpInvol, both the main effect of GrpInvol and the interaction effect of *GrpInvol x BA x RA* were significant. This implies that involvement played a direct role in forming attitude and also had a moderating effect with regard to the perception of BA x RA in the shampoo category. For the high involved consumers, the main effects of RA, SET, use, and gender were significant along with the interaction effect of BA x RA x SET. For the low involved consumers, the main effect of RA, prestige and age were significant along with the interaction effects of BA x RA, RA x SET and RA x Prestige. Since the main effect of RA was dominant for both high involved and low involved consumers and for the total data, we can conclude that RA was the most important effect in evaluating extensions of brands from the shampoo category. The main effect of relevance of association is justified given the kind of extensions chosen for the brands from this category. Extensions like tik shampoo, medicated bath soap, hair cream, and conditioner to brands Sunsilk and Mediker are likely to have been evaluated clearly with respect to the relevance of the brand's association in that category[12]. This is evident in the BA x RA x SET interaction

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[12] Tik shampoo is not a widely used category. Users of hair cream and medicated bath soap are likely to be highly involved in these categories, since the products are not used extensively by the entire population. The category of Conditioner also suffers from a peculiar problem of perceptions. It has been bundled with the shampoo category in the

significant for the high involved consumers and the BA x RA interaction for low involved consumers. This reinforces our earlier conclusion that low involved consumers also tend to use a process more detailed than affect transfer to evaluate the extensions.

In the soap category, brand affect, prestige, use and household income per month were the significant main effects. The *brand affect X relevance of association* interaction effect was not significant here. An implication is that in this category, extensions might be evaluated simply as a process of affect transfer or there might reliance on prestige of parent brand and extent of use of the extension category to form the attitude towards the extension. Respondents from different income categories might also view extensions from this category differently.

When the GLM - ANOVA was estimated for this product category with GrpInvol, both the main effect of GrpInvol and the interaction effect of *GrpInvol x BA x RA* were not significant. This implies that involvement did not make a difference to the evaluation and it did not have a moderating effect with regard to the perception of BA x RA either. Main effects of brand affect, prestige of the parent brand, use of extension category and the demographic variable of household income per month were significant for the high involvement category and the main effects of brand affect and household income per month were significant for low involved consumers.

Given that the demographic variable of household income per month was significant in the model, we split the data on this demographic variable and estimated models for the last three categories of household income per month. The main effect of brand affect was significant only in the income category above Rs 10,000. For all the three categories the BA x RA x SET interaction was significant at 5% level of significance implying that the BA x RA interaction was perceived by consumers for atleast one set of extensions in the study.

Comparison between attitude means for extension categories

Indian market and hence to evaluate conditioner as a separate product also requires the individual to look for the relevance of the brand's specific associations.

The means on `attitude towards the extension' for each of the extensions under the experimental and control brands are given in table 8 and the level of significance of the t-test between means for independent samples is given alongside.

Insert Table 8

In the rub and balm category, medicated plaster and painkiller tablets are relevant extensions for Iodex. The attitude means were higher in magnitude for these extensions for Iodex, and Iodex medicated plaster was significantly preferred over Krack medicated plaster. This was expected because Iodex is the stronger brand in the rub and balm category and with a relevant association, its extension is bound to be preferred over the same extension from Krack. Winter cream and Lip Gel are relevant extensions for Krack and the means of these extensions were higher for Krack than Iodex, once again implying that the process of evaluation of the extension may not be a process of simple affect transfer. In the case of Lip gel, Krack lip gel was significantly preferred over Iodex lip gel thus confirming that consumers do look at the relevance of the parent brand's association in the extension category. This is a test of our hypothesis and supports the brand affect X relevance of association X set interaction visible in the ANOVA. It showed that though Iodex may be preferred to Krack in the original category of rub and balm, the Krack lip gel extension was preferred to Iodex lip gel because Krack's association of *soft crackless feet* was relevant for lip gel while Iodex's association of *relief from sprains* was not.

In the shampoo category, Conditioner and Hair Cream/gel are relevant extensions for Sunsilk and Medicated bath soap and Tik Shampoo for dogs are relevant extensions for Mediker. The attitude means for the relevant extensions for each brand were higher than the same extensions under the other brand, but a significant difference was visible only in the case of Conditioner. The main effect of relevance of association and the brand affect X relevance interaction were both significant in the ANOVA for the shampoo category and this is evident in the attitude means, but no preference reversals among the extensions were obtained with the experimental brand because the attitude scores on the Mediker extensions were low in their absolute values - 3.99 for Mediker tik shampoo for dogs and 4.5 for Mediker medicated bath soap.

Finally, in the soap category, all the extensions had higher attitude means with the brand Lux, compared to the experimental brand Jai and the differences are significant in three of the four cases. This is supported by the significant main effect of *Brand Affect* in the ANOVA. Affect transfer seems to be the main process in the evaluation of extensions in this category.

The same analysis on differences between attitude means was performed for the high involved and less involved consumers respectively. The same pattern of results was observed for both these groups as for the aggregate data. In each of the cases, except for the soap category, the extensions of the experimental brand received higher ratings than the control brand. The differences were significantly different only in case of one extension, viz. Krack lip gel. This implies that the interaction effect of brand affect and extension relevance was discernible in the attitude means for both the high and low involvement groups. For the high involvement group, it followed from the main effects of BA and RA and for the low involvement group, the interaction itself was significant.

Can we find different models under different categories of demographic variables?

Since the variable of gender was significant in the GLM-ANOVA model estimated for the total data, separate models were estimated for males and females. We found that, for males, the main effects of PC, BA, RA, SET, GrpPres (prestige), GrpUse (use), GrpInvol (involvement), and the demographic variable of age were significant. The interaction effect of BA x RA was also significant at 5% level of significance. It implies that brand specific associations moderated the effect of brand affect in evaluation of the extension for males. It follows from the main effect of involvement that high and low involved male consumers evaluate extensions differently and a significant effect of BA x RA x GrpInvol implies that involvement is a moderating variable on the effect of BA x RA on the evaluation of the extension. Interaction effects of BA x Use and RA x Use imply that the effect of brand affect and relevance of association on the attitude towards the extension may be moderated by the male consumers' use of the extension category. For the female consumers, we found that relevance of association was the only significant main effect explaining attitude, with the main effect of the demographic variable of age and household income.

Once again, as was evident from the results from the shampoo category, females seemed to rely on the variable of RA in evaluation, irrespective of their evaluation of the parent brand, parent and

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extension categories, use and involvement in the extension category to develop their attitude towards the extension. Involvement does not have a direct effect or a moderating effect on BA x RA in the evaluation of the extension.

Results for males followed the pattern of results obtained for the total data set. Given that involvement had a main effect and a moderating effect on the effect of BA x RA, we estimated these models for the low involved and high involved consumers. We found that the main effects were significant and sufficient to explain attitude for high involved males, while the interaction effects of BA x RA was significant for low involved males.

As is evident from table 6, when we estimated the model for high and low involved consumers, the demographic variables of gender, age, and education were significant for the high involvement consumers but none of them were significant for low involved consumers. Hence we split the data on each demographic variable for the high involved and low involved consumers to see if there were any differences in the significant main/ interaction effects across consumers on different levels of the demographic characteristics.

Since the BA x RA x GrpInvol interaction was significant for males, differences were visible between high and low involved males in the evaluation of the extension. For high involved males, we found that the main effects of PC, BA, SET, Prestige of parent brand and Use of the extension category were significant and the interaction effect of BA x Prestige was also significant. For the low involved male consumer, use of the extension category was the only main effect along with a significant BA x RA interaction. For females, involvement did not play a moderating role in the evaluation of the extension.

Differences in the model were found across conditions of high involvement and low involvement for two age categories (20-30 and 30-40 years). In the high involvement case, for both these age groups, the main effects of PC, BA, and RA were significant. The BA x RA x Set interaction was also significant for the 20-30 age group for high involvement. For the low involved consumers, in both these age categories, none of the main effects were significant but the BA x RA interaction was significant.

Across high and low involvement groups at different levels of education, we found that the high involved respondents in the high school category perceived a BA x RA x Set interaction, but the

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low involved respondents in the high school group did not. Both high involved graduates and post-graduates exhibited a main effect for PC, while low involved graduates and post-graduates showed a significant interaction effect of BA x RA in the model. Low involvement post-graduates also exhibited main effects of PC, RA, and Set. Relevance of association was moderated by prestige of the parent brand and use of extension category for this group.

Across the different levels of occupation, it was interesting to find that low involved students seemed to rely only on prestige of parent brand and use of the extension category to evaluate an extension while the model for the high involved student group showed significant main effects of PC, BA, RA, and an interaction effect of BA x RA. Clearly, results obtained on a student sample would have confirmed our hypothesis on the moderating role of involvement exactly, but the real life consumer behaves almost exactly in the opposite. This should warn marketers against using student samples for drawing generalizations with respect to the same behavior for the consumer population. In the service category, we found that high involved and low involved consumers relied on main effects of PC, prestige of parent brand and use of the extension category for the evaluation of the extension.

When the data was split on household income, only the category with income greater than Rs 10,000 showed a significant BA x RA interaction for the low involved consumers. For the high involved consumers in the same income category, prestige of the parent brand, use of the extension category and SET were main effects.

5. Conclusions

Research in the area of brand extensions has stressed on the importance of brand affect and product category similarity in the evaluation of an extension. Broniarczyk and Alba (1994) found that the impact of brand specific associations was so influential that it dominated brand affect and product category similarity. Our research re-examined this proposition and found that brand affect retained its importance in explaining attitude towards the extension, even when the brand's specific association was relevant in the extension category. Broniarczyk and Alba (1994) did not find a main effect for brand affect, but they acknowledge at the end of their paper that the range of affect was not large in their study and if the two brands chosen lie at the opposite ends of the affect continuum in the category, affect may dominate evaluation. The affect range for the brands used in our research was from 4.29 to

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5.66 on a seven point scale, which is definitely not at the opposite ends of the scale, yet brand affect retains importance in the evaluation of the extension. It follows that if a brand is valued positively in its parent category, there is a high likelihood that it will be valued positively in its extension category as well. This result is visible clearly in the evaluation of extensions from the soap category where we found that all extensions of the brand Lux were favored by consumers regardless of whether its association of `Image of film stars' was relevant for the extension or not.

However, at the same time, we also found that relevance of the association in the extension was also equally important in explaining attitude. Relevance of the association also moderated the effect of brand affect in the evaluation of the extension. It implies that a brand with a strong association can extend into categories on the basis of its association, even if it is not very strong on affect compared to the other brands in its parent category. It would hence be beneficial for marketers to build strong associations for their brands. Affect for the brand could also be built by building a strong association for the brand that would differentiate it from the other brands in the category and from the category associations.

Our research also shows that the prestige status of the parent brand and extent of use of the extension category have a direct bearing on the evaluation of the extension. The parent brands are all perceived to be non prestige in the study but at the same time, a significant main effect for prestige implies that the more a brand is perceived as prestigious by the consumer, the higher is his/her attitude towards an extension from the brand. Park, Milberg and Lawson (1991) state that brands with prestige associations can extend to dissimilar categories on the basis of their prestige image. This study suggests that consumers may develop an affect towards prestige brands for the sake of the prestige status of the brand itself and this strong affect could translate into positive attitude towards extensions from the brand. A main effect of the use of the extension category suggests that the more regularly an individual uses a particular category, the more predisposed he/ she is towards brand extensions in that category. This predisposition can be attributed to the individual's affect towards the product category itself. Sullivan (1992) states that brand extensions are launched into mature product categories which are used quite regularly by a vast chunk of consumers. It might do well for brand managers to concentrate not only on parent brand related aspects for the launch of an extension, but also on the category related

aspects like needs satisfied by the category, evaluation and choice processes of brands in the category and profile of heavy users vs. non users and their specific requirements.

Our results show that there is no direct effect of involvement in the evaluation of the extension, but there is a moderating role of involvement in the evaluation of an extension. This moderating role of involvement in the perception of the interaction of brand affect and relevance of association (BA x RA) was significant for low involved consumers and not for the high involved consumers as hypothesized. Instead the main effects of PC, BA, RA and SET were significant in explaining attitude towards the extension for high involved consumers. The high involved consumers did not perceive the BA x RA interaction because of the strong influence of the main effects, while the low involved consumers perceived the interaction due to the absence of a main effect for brand affect (BA) and presence of the main effect of relevance of association '(RA) in the model. When the ANOVA models are estimated separately for extensions from each parent category the moderating role of involvement was visible only in the extensions from the shampoo category. The effect of BA x RA was significant for low involved consumers in the shampoo category while the main effects of RA and BA x RA x SET are significant for high involved consumers. These results signify that our initial hypothesis that the low involved consumer in the extension category will go through a simpler process of evaluation like affect transfer for the evaluation of the extension fails to hold good. The low involved consumer in fact perceives both the effects of relevance of association and the interaction effect of BA x RA just like the high involved consumers.

We found that involvement in the extension category interacts with the demographic variables of age and education, implying that age and education might moderate the effect of involvement on the attitude towards the extension. When we estimated the model separately for high and low involved consumers in different categories of demographic variables, we found differences between high and low involvement consumers in terms of the moderating role of involvement on the effect of BA x RA in the evaluation of the extension. For the low involvement group in different age and education categories, the BA x RA interaction was significant while for the high involvement groups, the main effects of PC (product category), BA (brand affect), and RA (relevance of association) were significant. The same result was also seen for low involved and high involved males. It was interesting to find these results reversed only for the student group where low involved students seemed to rely on

prestige status of the parent brand to make an evaluation of the extension while high involved students perceived the main effects of PC, BA, RA and the interaction of BA x RA. This should warn marketers against using student samples for drawing generalizations with respect to the same behavior for the consumer population.

Thus, with respect to the role of involvement in the evaluation of an extension, our study suggests that the widely accepted typology of processing for high and low involved consumers - central message based processing and peripheral non-message based processing might be too simplistic in its outlook. There is research in the stream of advertising executional cues and involvement which states that certain characteristics of an executional cue can stimulate message based processing for low involved consumers and thus influence brand attitudes (MacInnis and Whan Park, 1991). We extend the same logic to the evaluation of extensions in the study, where the consumer has to formulate his/her attitude towards the extension on the basis of

(i) all the parent brand related information (brand affect, associations, advertising, promotion) that s/he possesses and

(ii) his/her predisposition (high involvement, heavy user, high affect) towards the category into which the parent brand is extending.

These two aspects could be at high or low levels for each consumer and a 2 x 2 grid could be formed. Literature is unanimous about the fact that, when the individual's predisposition towards the category is high, then s/he will go through detailed processing of brand extensions at both high and low levels of brand related information. However, from our results, we can suggest that even at low levels of predisposition towards the category, high levels of brand related information can act as a cue to elicit detailed processing of brand related information, inorder to form an attitude towards the extension.

We have to add that there might be a change in the processing strategies after the information on the marketing mix elements of promotion and distribution are available to low involved consumers. It may be possible that the marketing mix related inputs become more important to the low involved consumer than the brand related information and thus accordingly alter his/her process of evaluation.

The main effect of gender was also significant in the models estimated for the total data. When the ANOVA model was estimated for males, the main effects of PC, BA, RA, SET, GrpPres (prestige), GrpUse (use), GrpInvol (involvement) and the demographic variable of age are significant in

the model. The interaction effect of BA x RA is also significant at 5% implying that for males, brand specific associations do moderate the effect of brand affect in evaluation of the extension for males. The main effect of involvement suggests that high and low involved male consumers evaluate extensions differently and a significant effect of BA x RA x GrpInvol implies that involvement is a moderating variable in the evaluation of the extension by males. However, for the female consumers, relevance of association is the only significant main effect with the main effects of the demographic variable of age and household income. Research suggests that males and females often differ in how they process message claims and females are found to exhibit greater sensitivity to the particulars of relevant information when forming judgments than are males. Males' processing is more likely to be driven by overall message themes or schemas. (Meyers-Levy, 1989 cf. Meyers-Levy and Maheswaran, 1991, Meyers-Levy and Sternthal, 1991). We find these results represented in the study in the significant main effect of RA for females, but males also exhibit a detailed processing strategy in the study. Meyers-Levy and Maheswaran (1991) add that these gender differences in processing are likely to occur only when the demands of the response task or the content of the messages do not strongly support the use of a particular strategy. Females may process information on the basis of a schema and males could go through detailed processing depending on the demands placed on them by the response task and kind of message content. In our study, both males and females seem to have gone through a detailed processing strategy, though the males have considered more factors in their judgment of the extension.

6. Implications

The study reiterates the importance of affect and associations in building brand equity. Aaker (1991) has stated that five elements form the basis of brand equity viz. brand loyalty, name awareness, perceived quality, brand associations and other proprietary assets. These bases of brand equity provide the platform for growth via brand extensions. This study clearly shows that two of these dimensions - overall affect towards the brand (operationalised as perceived quality of parent brand in different studies on brand extension) and brand associations are the most important factors influencing attitude towards the extension. Thus the manager needs to concentrate on building affect and strong associations for his brand. Yet, all is not lost for a brand that is low on affect. A strong association

could be used to leverage the brand into related categories. Our research supports both the simple affect transfer process and the inference process for evaluation of extensions, as suggested in literature. This actually suggests that there might not exist one single dominant process in the evaluation of an extension by consumers. The consumer schema of the brand extension is built based on a lot of variables and the whole schema is important in forming his/her attitude towards the extension. Given that the brand extension schema for the consumers is an amalgam of various aspects of the brand, of the extension category and the other marketing mix variables, we need to study the formation of such schemas in a memory network model to understand the process of evaluation of extensions. Involvement in the extension category may be a relevant moderating variable only with respect to some categories, and even for these categories, the differences between high and low involved consumers lies in the way in which they process the information available to them. This has definite implications for marketers in designing promotion strategies for brand extensions. Future research could check for these results with inherently more involving categories than those used in this study. Further, marketing mix variables might play an important role in the evaluation of extensions by low involved consumers. Hence research needs to consider brands that have already been extended in the market and control for the promotion and distribution variables to understand the effect of involvement clearly in the evaluation of an extension.

Appendix 1

GLM - ANCOVA Procedure with independent variables and covariates

General Linear Models Procedure

Class Level Information

Class	Levels	Values
PC	3	1 2 3
BA	2	1 2
RA	2	1 2
SET	2	1 2

Number of observations in data set = 1080

General Linear Models Procedure

Dependent Variable: Attitude towards the extension

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	47	479.9057314	10.2107602	4.91	0.0001
Error	1032	2148.0942686	2.0814867		
Corrected Total	1079	2628.0000000			

R-Square	C.V.	Root MSE	ATT Mean
0.182613	33.29390	1.442736	4.33333333

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General Linear Models Procedure

Source	DF	Type I SS	Mean Square	F Value	Pr > F
PC	2	63.6263889	31.8131944	15.28	0.0001
BA(PC)	3	60.1708333	20.0569444	9.64	0.0001
RA(PC)	3	43.5277778	14.5092593	6.97	0.0001
SET(PC)	3	21.5819444	7.1939815	3.46	0.016
BA*RA(PC)	3	56.1138889	18.7046296	8.99	0.0001
RA*SET(PC)	3	10.3125	3.4375	1.65	0.1759
BA*RA*SET(PC)	6	31.0805556	5.1800926	2.49	0.0214
PRES	1	24.6768805	24.6768805	11.86	0.0006
USE	1	105.1989207	105.1989207	50.54	0.0001
PRES*BA(PC)	5	11.9168908	2.3833782	1.15	0.3347
PRES*RA(PC)	3	10.6478696	3.5492899	1.71	0.1642
USE*BA(PC)	5	9.5154401	1.903088	0.91	0.4708
USE*RA(PC)	3	14.0295976	4.6765325	2.25	0.0813
PRES*BA*RA(PC)	3	11.5361982	3.8453994	1.85	0.1368
USE*BA*RA(PC)	3	5.9700451	1.990015	0.96	0.4128

Source	DF	Type III SS	Mean Square	F Value	Pr > F
PC	2	12.67982969	6.33991485	3.05	0.048
BA(PC)	3	1.95785106	0.65261702	0.31	0.8156
RA(PC)	3	6.86565993	2.28855331	1.1	0.3484
SET(PC)	3	4.49652704	1.49884235	0.72	0.5401
BA*RA(PC)	3	10.49804197	3.49934732	1.68	0.1693
RA*SET(PC)	3	3.63142799	1.210476	0.58	0.6272
BA*RA*SET(PC)	6	25.98141377	4.33023563	2.08	0.053
PRES	1	25.75356777	25.75356777	12.37	0.0005
USE	1	98.42351492	98.42351492	47.29	0.0001
PRES*BA(PC)	3	2.14402336	0.71467445	0.34	0.794
PRES*RA(PC)	3	12.50944526	4.16981509	2	0.1118
USE*BA(PC)	3	5.08313294	1.69437765	0.81	0.4862
USE*RA(PC)	3	14.19009857	4.73003286	2.27	**0.0786**
PRES*BA*RA(PC)	3	11.15693023	3.71897674	1.79	0.148
USE*BA*RA(PC)	3	5.97004507	1.99001502	0.96	0.4128

Category wise ANCOVA Procedure with Independent variables and covariates

Product Category - RUB AND BALM

Number of observations in by group = 360

Dependent Variable: Attitude towards the extension

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	15	142.9377008	9.5291801	3.99	0.0001
Error	344	822.2282715	2.3901985		
Corrected Total	359	965.1659722			

R-Square	C.V.	Root MSE	ATT Mean
0.148096	38.50360	1.546027	4.01527778

Source	DF	Type III SS	Mean Square	F Value	Pr > F
PC	0	0.	.	.	
BA(PC)	1	1.05890167	1.05890167	0.44	0.5061
RA(PC)	1	2.11233633	2.11233633	0.88	0.3478
SET(PC)	1	1.5563226	1.5563226	0.65 .	0.4203
BA*RA(PC)	1	4.2539162	4.2539162	1.78	0.1831
RA*SET(PC)	1	0.63758315	0.63758315	0.27	0.6059
BA*RA*SET(PC)	2	23.58944159	11.79472079	4.93	0.0077
PRES	1	4.65752816	4.65752816	1.95	0.1636
USE	1	56.02752639	56.02752639	23.44	0.0001
PRES*BA(PC)	1	0.05849403	0.05849403	0.02	0.8758
PRES*RA(PC)	1	5.31721877	5.31721877	2.22	0.1367
USE*BA(PC)	1	1.13228431	1.13228431	0.47	0.4917
USE*RA(PC)	1	1.28092898	1.28092898	0.54	0.4646
PRES*BA*RA(PC)	1	10.08213446	10.08213446	4.22	**0.0407**
USE*BA*RA(PC)	1	1.37209315	1.37209315	0.57	0.4492

Product category - SHAMPOO

General Linear Models Procedure

Dependent Variable: Attitude towards the extension

Source	DF	Sum of Squares	Mean Square .	F Value	Pr > F
Model	15	151.6001157	10.1066744	5.18	0.0001
Error	344	671.6186343	1.9523798		
Corrected Total	359	823.2187500			

R-Square	C.V.	Root MSE	ATT Mean
0.184155	30.34807	1.397276	4.60416667

General Linear Models Procedure

Source	DF	Type III SS	Mean Square	F Value	Pr > F
PC	0	0.	.	.	
BA(PC)	1	0.0064801	0.0064801	0	0.9541
RA(PC)	1	2.42530969	2.42530969	1.24	0.2658
SET(PC)	1	2.32006233	2.32006233	1.19	0.2764
BA*RA(PC)	1	5.27189456	5.27189456	2.7	0.1012
RA*SET(PC)	1	2.46720283	2.46720283	1.26	0.2617
BA*RA*SET(PC)	2	1.62334912	0.81167456	0.42	0.6602
PRES	1	1.77092196	1.77092196	0.91	0.3416
USE	1	39.66813149	39.66813149	20.32	0.0001
PRES*BA(PC)	1	0.13873544	0.13873544	0.07	0.79
PRES*RA(PC)	1	7.06988278	7.06988278	3.62	**0.0579**
USE*BA(PC)	1	1.45269495	1.45269495	0.74	0.389
USE*RA(PC)	1	4.16634676	4.16634676	2.13	0.145
PRES*BA*RA(PC)	1	1.07245848	1.07245848	0.55	0.4591
USE*BA*RA(PC)	1	3.37313945	3.37313945	1.73	0.1896

Product category - SOAP

General Linear Models Procedure

Number of observations in by group = 360

Dependent Variable: Attitude towards the extension

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	15	121.7415260	8.1161017	4.27	0.0001
Error	344	654.2473629	1.9018819		
Corrected Total	359	775.9888889			

R-Square	C.V.	Root MSE	ATT Mean
0.156886	31.48202	1.379087	4.38055556

Source	DF	Type III SS	Mean Square	F Value	Pr > F
PC	0	0.	.	.	
BA(PC)	1	0.89246929	0.89246929	0.47	0.4938
RA(PC)	1	2.32801392	2.32801392	1.22	0.2693
SET(PC)	1	0.62014211	0.62014211	0.33	0.5684
BA*RA(PC)	1	0.97223122	0.97223122	0.51	0.4751
RA*SET(PC)	1	0.52664201	0.52664201	0.28	0.5991
BA*RA*SET(PC)	2	0.76862306	0.38431153	0.2	0.8171
PRES	1	30.96235249	30.96235249	16.28	0.0001
USE	1	13.55755977	13.55755977	7.13	0.0079
PRES*BA(PC)	1	1.94679389	1.94679389	1.02	0.3124
PRES*RA(PC)	1	0.12234371	0.12234371	0.06	0.7999
USE*BA(PC)	1	2.49815368	2.49815368	1.31	0.2526
USE*RA(PC)	1	8.74282283	8.74282283	4.6	0.0327
PRES*BA*RA(PC)	1	0.00233729	0.00233729	0	0.9721
USE*BA*RA(PC)	1	1.22481247	1.22481247	0.64	0.4228

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Table 1 : Choice of brands and extensions for study

Parent category	Brand	Extension -Relev. of Assoc.	Extension - Non Relev. of Assoc.
Confectionery	Coffee Bite	1. Chocolate Bar 2. Coffee	1. Breathmints 2. Mouth freshener
	Polo	1. Breathmints 2. Mouth freshener	1. Chocolate bar 2. Coffee
Shampoo	Sunsilk	1. Conditioner 2. Hair cream/gel	1. Medicated bath soap * 2. Tik Shampoo for dogs *
	Mediker	1. Medicated bath soap * 2. Tik Shampoo for dogs *	1. Conditioner 2. Hair cream/gel
Soap	Lux	1. Shampoo 2. Cosmetics	1. Talcum powder 2. Perfume
	Jai	1. Talcum powder 2. Perfume	1. Shampoo 2. Cosmetics
Rub and Balm	Iodex	1. Medicated plaster 2. Pain killer tablets	1. Lip Gel * 2. Winter cream
	Krack	1. Lip Gel * 2. Winter cream	1. Medicated plaster 2. Pain killer tablets

* These three extensions fell short of the required score of 4 on the relevance scale. They were included in the study nevertheless, to complete the design, and in the case of similar low ratings in responses to the final experiment, the extensions would be dropped.

Table 2: Variables and Measures

Variable		Measure
Attitude towards the extension (Dependent variable)	Att$_e$	Overall evaluation of the potential extension (7 point scale) a) Inferior to existing brands - Superior to existing brands b) Dislike - Like c) Not willing to try at all - Definitely willing to try d) Unfavorable - Favorable
Attitude towards parent brand	BA	7 point scales measuring brand affect a) Dislike - Like b) Low Quality - High Quality c) Unfavorable - Favorable
Similarity (FIT)	SIMPF SIMUS	Two 7 point scales measuring similarity a) Not similar - Very similar on *physical features and product characteristics* b) Strongly Disagree - Strongly Agree on usage of the two categories together in certain *usage situations.*
Relevance of brand association	RACOMBN RAIMP	a) Distinctiveness of the feature/association to the brand name (1-7, seven pt. scale) x evaluation of transferable feature in extension category (1-7 pt. scale) (Associated with product class - Uniquely associated with brand) x (Dislike - Like) b) A 7 point scale measuring *importance* of parent brand association in extension category Not at all important - Very important
Involvement in the extension category	INVOL	The McQuarrie and Munson (1992) ten item scale is used to measure the consumers' involvement in the extension category
Prestige status of the parent brand	PRES	The prestige status of the parent brand is measured using the scale developed in table 1
Extent of use of the extension category	USE	The extent to which the extension category is used by consumers is measured on a 7 point scale Do not use the product at all - Use the product regularly.
Demographic variables		Information on the demographic variables of gender, age, occupation, education and household income per month was also collected from respondents.

Table 3: Consistency of Manipulations with Pretests

Parent categ.	Brand	Brand Specific Association (Strength)	Brand Affect (Mean Scores)	Extension -Relev. of Assoc.	Relevance (RaImp)	Relevance (RaCombn)
Rub and Balm	Iodex	Relief from sprains/ muscular pain (5.34)	5.815	1. Medicated plaster	5.11	28.33
				2. Pain killer tablets	5.33	28.73
	Krack	Soft crackless feet (5.32)	4.7519	1. Lip Gel	4.00	19.44 *
				2. Winter cream	4.60	25.27
Shampoo	Sunsilk	Shiny silky great looking hair (4.71)	5.3481	1. Conditioner	5.84	29.51
				2. Hair cream/ gel	5.36	25.18
	Mediker	Anti-lice (5.38)	4.9704	1. Medicated bath soap	4.02	22.71
				2. Tik Shampoo for dogs	4.67	25.64
Soap	Lux	Image of film stars (4.72)	5.1630	1. Shampoo	4.82	23.89
				2. Cosmetics	4.56	25.62
	Jai	Fragrance of flowers (4.29)	4.2111	1. Talcum powder	5.82	26.24
				2. Perfume	5.51	23.22
Confect-ionery	Coffee Bite	Coffee satisfaction in a chocolate (5.11)	5.6444	1. Chocolate Bar	5.64	30.64
				2. Coffee	5.18	26.96
	Polo	Mint / Mint with a hole (5.66)	5.8741	1. Breathmints	6.16	36.16
				2. Mouth freshener	6.02	33.98

Table 4: Study 1-Significant effects in the GLM-ANOVA for total data

No	Significant Effects	(F. Significance)
1	PC	6.83 (.001)
2	BA	4.07 (.007)
3	RA	5.27 (.001)
4	SET	NS
5	BA x RA	8.33 (.000)
6	RA x SET	NS
7	BA x RA x SET	NS
8	GrpPres	8.104 (.000)
9	GrpUse	23.64 (.000)
10	Gender	8.812 (.003)

PC: Product category
BA: Brand Affect
RA: Relevance of Association
Set: Set of Extensions
GrpPres: Prestige status of parent brand
GrpUse: Use of extension category

Table 5 : Moderating role of involvement

Effects	F-value	Significance
PC	7.641	.001
Gender	8.551	.004
BA (pc)	3.513	.015
RA (pc)	6.789	.000
SET (pc)	2.482	.060
BA x RA (pc)	3.715	.011
BA x RA x SET (pc)	1.961	.069
GrpPres	9.066	.000
GrpUse	15.67	.000
SET x GrpInvol	3.078	.027
BA x RA x GrpInvol	3.586	.013
GrpInvol x Age	3.885	.004
GrpInvol x Education	2.781	.040

Table 6: Moderating Role of Involvement

Effects	High involvement (F.sign.)	Low involvement (F.sign.)
PC	8.239 (.000)	NS
BA (pc)	3.48 (.016)	NS
RA (pc)	3.73 (.011)	2.47 (.061)
SET (pc)	4.02 (.008)	NS
BA x RA (pc)	NS	7.05 (.000)
GrpPres	6.12 (.002)	3.01 (.050)
GrpUse	6.55 (.002)	7.87 (.000)
Gender	6.742 (.010)	NS
Age	3.244 (.012)	NS
Education	2.902 (.035)	NS

Table 7 : Significant Effects of the GLM-ANOVA model for extensions from parent categories

Category	Significant Effects	Total data		High invol		Low invol	
Rub and Balm	1. RA (pc)	3.52	(.061)	NS		NS	
	2. BA x RA (pc)	4.47	(.035)	NS		NS	
	3. BA x RA x SET (pc)	3.21	(.041)	NS		NS	
	4. GrpUse	8.16	(.000)	NS		6.27	(.002)
	5. Age	NS		2.52	(.045)	NS	
	6. Education	NS		2.55	(.059)	NS	
Shampoo	1. RA (pc)	12.95	(.000)	13.0	(.000)	8.73	(.004)
	2. SET (pc)	NS		17.06	(.000)	NS	
	3. BA x RA (pc)	20.06	(.000)	NS		18.56	(.000)
	4. BA x RA x SET (pc)	NS		4.96	(.008)	NS	
	5. RA x SET (pc)	NS		NS		2.81	(.096)
	5. GrpPres	NS		NS		2.46	(.089)
	6. GrpUse	13.22	(.000)	7.3	(.001)	NS	
	7. RA x GrpPres (pc)	3.73	(.025)	NS		3.26	(.041)
	8. Gender	4.44	(.036)	8.03	(.005)	NS	
	9. Age	NS		NS		2.01	(.096)
Soap	1. BA (pc)	13.61	(.000)	12.34	(.001)	10.36 (.002)	
	2. GrpPres	4.86	(.008)	3.05	(.050)	NS	
	3. GrpUse	4.38	(.013)	3.08	(.048)	NS	
	4. HH income/mth	3.79	(.005)	4.04	(.004)	2.73	(.035)

Table 8: Comparison of means of *attitude towards the extension* with respect to experimental and control brands

Parent Category	Extension categories	Exptl brand	Control brand	Pr>|T|
Rub and Balm		Krack	Iodex	
Set I	1. Medicated Plaster	3.972	4.783	.017
	2. Winter Cream	4.15	3.97	.608
Set II	1. Painkiller tablets	3.72	3.84	.713
	2. Lip Gel	4.38	3.28	**.003**
Shampoo		Mediker	Sunsilk	
Set I	1. Conditioner	4.405	5.627	**.000**
	2. Medicated bath soap	4.505	4.37	.684
Set II	1. Hair Cream/Gel	4.95	4.98	.895
	2. Tik Shampoo for dogs	3.98	3.99	.974
Soap		Jai	Lux	
Set I	1. Shampoo	3.77	5.02	**.000**
	2. Talcum powder	4.13	4.79	**.030**
Set II	1. Cosmetics	3.95	4.71	**.006**
	2. Perfume	4.14	4.50	.287