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Diluting Brand Beliefs: When Do Brand Extensions Have a Negative Impact?

This paper examines situations in which brand extensions are more or less likely to dilute beliefs associated with the family brand name. The results of an experimental investigation indicate that dilution effects do occur when brand extension attributes are inconsistent with the family brand beliefs. However, they are less likely to emerge when consumers perceive the brand extension as atypical of the family brand, and typicality of the brand extension is salient at the time beliefs are assessed. These findings held regardless of brand extension category, with the extension category being either the same or different from those product categories already occupied by the family brand, but differing by the type of family brand belief involved. Results are discussed in terms of the conditions under which two alternative theoretical perspectives ("bookkeeping" versus "typicality-based" models) are supported.

BRAND extensions have become an increasingly popular option for firms launching new products in the marketplace. As the financial risk and promotional costs have increased for introducing new products, firms have renewed their efforts to capitalize on the goodwill associated with existing brand names by launching brand extensions. Well over one-half of all new brands introduced in the 1980s were extensions marketed under existing brand names. Capitalizing on brand equity through brand extensions has truly become the "guiding strategy of product planners" (Tauber 1988, p. 26).

Amidst the enthusiasm for brand extensions, how-

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ever, have come concerns about the negative effects that extensions may have on brand names in the long run. Questions have been raised about the possibility that repeated brand extensions will eventually "wear out" a brand name and that unsuccessful brand extensions will "dilute" the equity associated with a well-established brand name. In fact, some observers believe that the combination of "wear out" and "dilution" effects will eventually result in the total demise of a brand's equity (Gibson, 1990).

Despite these concerns, surprisingly little effort has been directed toward investigating the potential negative effects of brand extensions on family brand names. Even more surprising, perhaps, is the fact that the few studies addressing this issue have found absolutely *no* evidence that brand names can be "diluted" by unsuccessful brand extensions (see Keller and Aaker 1992; Romeo 1991). In these studies, consumers were presented with information about a new product marketed under an established brand name, with the information providing evidence that the brand extension was "unsuccessful" in terms of sales volume generated (Keller and Aaker 1992) or in terms of product performance on several attributes (Romeo 1991). Despite receiving negative information about a brand ex-

tension, consumers did not evaluate the family brand name any differently than they had before learning about the brand extension (Romeo 1991) or any differently than a control group that had not received the extension information (Keller and Aaker 1992).

In this paper, we examine the issue of brand name dilution from a different perspective than the studies described above. Specifically, we investigate whether brand extension failures can cause "dilution" of *specific attribute beliefs* that consumers have come to hold about an established brand name, rather than "dilution" of the global affect associated with an established brand name emphasized in previous research. When brand names are extended to new products, it is often the specific attribute associations that consumers identify with the brand name that are being transferred and that form the basis for positioning the new product in the market. For example, consumer beliefs that "Neutrogena is mild" have formed the basis for extensions of the Neutrogena name from soap to new lines, such as shampoo and moisturizer. If brand extension failures result in a dilution of specific beliefs about the brand name, the consequences could be devastating. For instance, if a core belief, such as "Neutrogena is mild," is destroyed by an entry in the shampoo category that consumers feel is "harsh," not only does the brand name suffer in terms of the consumer's general disposition toward the brand name but it also suffers in terms of its positioning and differential advantage in the marketplace.

The purpose of this research is to identify situations in which brand extensions may be more or less likely to dilute specific attribute beliefs consumers have learned to associate with the family brand name. In the sections that follow, we describe theoretical perspectives from categorization theory that allow us to make predictions about the factors that may increase or decrease dilution of beliefs about a family brand. In particular, the impact of information that is inconsistent with previous category beliefs and the concept of "typicality" from categorization theory will be explored as a way to understand when brand extension failures will or will not spill over to beliefs associated with the family brand name.

These predictions are then tested in an experimental setting by examining changes in attribute beliefs about a brand name resulting from the introduction of new brand extensions. The paper concludes with a discussion of these findings in terms of their implications for theoretical and managerial issues as well as future research agendas in the area of brand name dilution.

Conceptual Background and Hypotheses

Researchers in marketing have increasingly applied concepts from categorization theory to understand

product categories, including both the effects of product category structure on evaluations associated with instances of the category and the reverse, the effects of particular instances on overall category structure (Meyers-Levy and Tybout 1989, Sujan and Bettman 1989, Sujan and Deklava 1987). Family brands (e.g., Neutrogena) are also recognized as categories (cf., Boush and Loken 1991), which over time have come to be associated with a number of specific attributes (e.g., "soap", "mildness", "quality"), based on the attributes associated with individual category members (e.g., Neutrogena soap, Neutrogena shampoo, and Neutrogena conditioner).

A new brand extension with the same family brand name introduces yet another set of attributes or beliefs that can be either consistent or inconsistent with the image already projected by the family brand name. Viewed in this manner, one issue of dilution pertains to the question of how consumers' existing beliefs about the family brand name are changed by new information conveyed by the brand extension that is inconsistent with the family brand beliefs. Since global evaluations are regarded by many attitude theorists as a function of beliefs, it follows that global evaluations of family brands may be diluted when family brand beliefs are changed, suggesting the importance of understanding dilution at the level of specific beliefs.

Alternative categorization perspectives make different predictions about the manner in which inconsistent information is incorporated into an existing set of beliefs and the manner in which the original beliefs are changed. Two of these perspectives make competing predictions and are addressed in the present research. By far the simplest perspective, what we will refer to as the "bookkeeping model," argues that beliefs change incrementally as new information is received (cf., Weber and Crocker 1983). When applied to family brand categories, the bookkeeping model suggests that any new inconsistent attribute information about a brand extension results in a minor modification or updating of the corresponding family brand belief; that is, dilution of the family brand belief results. For example, if Neutrogena, a brand name associated with "mildness," introduces a new product perceived by consumers to be "harsh" with the same family brand name (e.g. a "strong" Neutrogena shampoo), this introduction should dilute the belief that "Neutrogena products are mild." In the case of an extension in which more than one attribute is inconsistent with family brand beliefs, for example, a brand extension that is perceived as both harsh and low quality, both mildness and quality family brand beliefs should be diluted.

An alternative perspective argues that categories have prototypicality (or typicality) "gradients," that is, more typical members of a category share more

attributes than less typical members with other category members. According to a “typicality-based model,” the impact or weight given to inconsistent information on beliefs about a family brand name depends on whether the inconsistent information pertains to more or less typical members of the category (cf., Rothbart and Lewis 1988).

Generally speaking, dilution of a belief about a family brand will increase as the prototypicality of the extension, including inconsistent information, increases. Therefore, the more consumers perceive the new brand extension’s attributes as inconsistent with the attributes of the family brand name, that extension will be perceived as *less typical* of the family brand name, and, contrary to predictions of the bookkeeping model, generalization of the extension’s attributes to the family brand name is *less* likely to occur. In other words, if information about the brand extension suggests that the extension is atypical (low in prototypicality) of brands marketed under the family brand name, then consumers will be less likely to make an inference from the individual extension to the family brand beliefs. The less typical the product extension of the family brand, the less dilution will occur for corresponding brand beliefs, and the more typical the extension, the greater the dilution will be.¹

If Neutrogena (again, a name associated with “mildness”) introduces a new product perceived by consumers as “harsh” with the same family brand name (e.g., a “strong” Neutrogena shampoo), the amount of dilution of the belief “Neutrogena products are mild” depends on the perceived typicality of the new shampoo to the Neutrogena name. As the number of inconsistent attributes salient to the category (e.g., harsh, low quality) increases, the perceived typicality of the extension should decrease, and according to the typicality-based model, the amount of dilution of Neutrogena brand beliefs should decrease.² Thus, an ex-

tension that is harsh *and* low quality should be perceived as less typical of the Neutrogena name than an extension that is harsh and high quality, and unlike the predictions of the bookkeeping model, the former extension should result in *less* dilution of Neutrogena beliefs about mildness than the latter.

Hypotheses About Brand Extension Information

In this study, we examine the extent to which descriptions of brand extensions containing attribute information that is inconsistent with family brand beliefs will affect those family brand beliefs. The specific context for the study involves extensions of a well-known brand name in the health and beauty aids area (producing bath and hair care items) that consumers strongly associate with attributes such as “gentle” and “high quality.” In descriptions of hypothetical brand extensions, consumers were presented with information about the ratings of the extensions on these two product attributes, gentleness and quality, that was either consistent or inconsistent with the well-known brand (hereafter referred to as “Brand A”). As indicated earlier, the bookkeeping and typicality-based models make competing predictions about the effects of this attribute information on family brand beliefs. The bookkeeping model predicts that, when presented with information about the two brand extension attributes, inconsistent information will lead to dilution of the corresponding brand beliefs. Specifically:

H_{1a}: Dilution of beliefs that “Brand A” makes gentle products will occur whenever the gentleness attribute is inconsistent with family brand beliefs.

H_{2a}: Dilution of beliefs that “Brand A” makes high-quality products will occur whenever the quality attribute is inconsistent with family brand beliefs.

In other words, information about an attribute that is inconsistent with the family brand belief will lead to belief dilution, regardless of whether that information is presented in the context of a low or moderately typical extension.

By contrast, the typicality-based model argues that consumers’ perceptions of brand extension typicality will decrease as the number of inconsistent cues increases and, more importantly, that perceived typicality will influence the extent to which dilution of family brand beliefs will occur. Given that our interest centers on the effects of inconsistent rather than consistent information, our predictions concerning dilution effects for the typicality-based model were focused on moderate typicality (one cue inconsistent) and low typicality (two cues inconsistent) conditions, without considering high typicality conditions (with two cues consistent). Therefore, we predict that the greater the typicality of a brand extension in which inconsistent information exists, the greater the dilu-

¹A number of other theoretical perspectives lead to a similar prediction. For example, in the schema literature, a subtyping model has been proposed to explain the fact that, although highly discrepant or inconsistent information may be well remembered, it may have little effect on core beliefs related to the original schema (Crocker 1981; Crocker, Hannah, and Weber 1983; Suján and Bettman 1989; Weber and Crocker 1983). In such cases, atypical category instances are likely to be subtyped and may not affect what is perceived as typical of the general schema (although they influence the perceived variability on the attribute in the general schema; see Park and Hastie 1987). Theories of assimilation and contrast (e.g., Sherif and Hovland 1961) and information cue discounting (e.g., Anderson and Jacobson 1965; Lynch and Ofir 1989; Wyer 1970) also argue that highly discrepant information is, under certain conditions, discounted and not incorporated into a person’s impressions and, under other conditions, may even yield contrast effects on beliefs associated with the discrepant information.

²This statement assumes that typicality judgments are attribute-based. While categorization researchers do not always agree about the determinants of prototypicality (see, e.g., Loken and Ward 1990), most argue that typicality judgments vary depending upon the degree of overlap of category members along a set of attributes (e.g. Rosch and Mervis 1975) or “ideal” category characteristics (e.g. Barsalou 1985).

tion of corresponding beliefs about the family brand. Specifically:

- H_{1b}: Dilution of beliefs that "Brand A" makes gentle products will occur under moderate typicality conditions (i.e., when only the gentleness attribute is inconsistent with family brand beliefs) and will not under the low typicality condition (i.e., when both the gentleness and quality attributes are inconsistent).
- H_{2b}: Dilution of beliefs that "Brand A" makes high-quality products will occur under the moderate typicality conditions (i.e., when only the quality attribute is inconsistent with family brand beliefs) and will not under the low typicality condition (i.e., when both gentleness and quality attributes are inconsistent).

Brand Extension Category

Although the focus of this research was on the relationship between the effects of inconsistent brand extension information and belief dilution, we also explored the issue of how these effects might vary across extensions from different product categories. For this purpose we presented consumers with descriptions of brand extensions that varied not only in terms of gentleness and quality but also in terms of extension category. Descriptions were developed for brand extensions in the same basic level category (shampoo) and for brand extensions in a different basic level category (facial tissue) than products currently produced under the family brand name.³ The "basic" categorization level was used to operationalize product class, by virtue of the fact that the basic level is the one most easily recognized and discriminated by consumers (see Sujana and Dekleva 1987).

Differences between product categories were deemed possible in light of recent evidence reported in the brand extension area. Most of this research reveals that generalization of beliefs about the family brand to a brand extension is greater for extensions in product categories similar to the family brand (e.g., Aaker and Keller 1990; Boush et. al 1987). Assuming the same relationship exists in the opposite direction, the generalization of beliefs about a brand extension to the family brand should be greater for extensions in product categories that are the same as those currently occupied by the family brand. Interestingly, however, this pattern has not emerged in initial studies of dilution effects. Neither Keller and Aaker (1992) nor Romeo (1991) found significant dilution of family brand beliefs for either "close" or "far" brand extensions, suggesting no product category differences in brand extension effects on dilution.

³Among many writers, products in the same basic-level category would be called line extensions and products in a different basic level category would be called brand extensions; among other writers, products in both same and different basic-level categories would be called brand extensions. This paper adopts the latter perspective in referring to both types of extensions as brand extensions.

Therefore, it is somewhat unclear whether the relationship between the brand extension and family brand category should influence the impact of brand extension failures. In fact, a category different from that of the family brand may actually be more or less compatible, depending on the types of attributes considered important in the category, common usage situations for products in the category, or technical capabilities required in manufacturing products in the category. These considerations led us to select categories for this study that would be similar with respect to some of these other factors, specifically the importance consumers place on our two key attributes (gentleness and quality)⁴ and the general usage situations (being in the same superordinate level category of health and beauty aids). The possible ambiguities involved in making product category comparisons led us to treat category differences as exploratory at this point.

Method

Overview

The study sample included 196 women between the ages of 18 and 49 who received information about a fictitious new brand extension as subjects in a 3 × 2 × 2 factorial design. The first factor in the study design was type of information received, with extensions described at varying levels of two attributes (gentleness and quality) that were strongly associated with the family brand name. As a result, brand extensions were described as (1) low in gentleness, low in quality; (2) low in gentleness, high in quality; or (3) high in gentleness, low in quality. Since our hypotheses pertain only to the effects of inconsistent information on typicality and belief dilution, we did not include a cell in our design for a product high in gentleness and high in quality. The second factor was product type, with extensions described as being either in the same basic level category as a current product offering by the company (shampoo) or in a different category from current product offerings (facial tissue). The third factor in our design was order of dependent measures, with beliefs being measured first, followed by typicality measures, or typicality measures followed by belief measures. Finally, in order to make the appropriate comparisons to assess dilution, we included a control group that received no information about new brand extensions.

⁴Subjects who were not exposed to brand extension information were asked to rate the importance of several attributes, including gentleness and quality, in evaluating brands of shampoo and facial tissue. On a scale from "not important" (1) to "very important" (7), both attributes were rated as very important for both product categories (for shampoo, $\bar{X} = 6.64$ for gentleness and $\bar{X} = 6.45$ for quality; for tissue, $\bar{X} = 6.58$ for gentleness and $\bar{X} = 6.13$ for quality).

To reduce demand artifacts, participants were told that the purpose of the study was to learn how people go about deciding whether to try new products. After receiving and reading the new brand extension information, respondents were asked several questions to ascertain whether they correctly comprehended the information regarding the two focal attributes—gentleness and quality. Respondents who passed these screening questions were then asked to complete a questionnaire measuring their perceptions of brand extension typicality, beliefs about the family brand, recognition of focal attribute information, product usage, and selected demographic characteristics.

Pretests

Three pretests were conducted prior to the final experiment. The first was conducted to determine whether consumers' perceptions were consistent with our expectations that the family brand name we chose (Brand A) was strongly associated with "gentleness" and "quality." A sample of 18 college students confirmed our expectations, in that "gentle" and "high quality" were the attributes most frequently mentioned in a free association test with the Brand A name (mentioned by 44% and 39% of the sample, respectively). Additionally, Brand A products were strongly perceived to be high on "gentleness" (on a scale from 1 to 7, where 7 means "likely" and 1 means "unlikely" to be associated with gentleness, $\bar{X} = 6.6$) and high in quality ($\bar{X} = 5.9$ on a similar 1 to 7 scale anchored by "good quality" and "bad quality").

The second and third pretests were conducted to verify that the specific manipulations of the design factors used in the study represented varying levels of brand extension typicality and therefore could be used to test the typicality-based model predictions. For this purpose, stimuli were developed using an attribute by product matrix in a *Consumer Reports* format, containing six brands of the product type (including the new Brand A extension) and four different attributes (including the two focal attributes and two irrelevant attributes to the purposes of the study). After viewing these data, subjects were asked to complete a questionnaire measuring their perceptions of how typical the new product was of Brand A products, their usage of individual products marketed under the Brand A name, and selected demographic characteristics.

Findings from both pretests were used to make necessary modifications in the experimental stimuli and in the final sample composition. The stimuli selected for the study were deemed acceptable in terms of manipulating the necessary levels of brand extension typicality. Specifically, ratings on a sum scale of four items indicated that the new brand extension was viewed as moderate in typicality when one of the focal attributes was inconsistent with family brand be-

liefs and was rated as low in typicality when both of the focal attributes were inconsistent. In terms of sample composition, an analysis of product usage data and demographic characteristics indicated that, while most subjects had some familiarity with Brand A products, women tended to be more familiar with these products and were more likely to have the gentleness-quality associations we anticipated for these products. Based on these results, it was determined that a sample of female consumers would be most appropriate for the final experiment.

Sample and Procedure

Subjects were recruited by a marketing research firm in a mall-intercept study. Women between the ages of 18 to 49 who were the principal shoppers in the family, with at least a high school education, and with an income of \$10,000 or more were invited to participate in the study. Those who agreed were taken to a research facility in the shopping mall, randomly assigned to one of the study conditions, and given the appropriate instructions. Subjects in the experimental conditions, who were to see information on a new brand extension, were told that we were interested in learning "how people go about deciding whether to try new products." They were asked to read, at their own pace, some information from *Consumer Reports* on a new product (either a shampoo or facial tissue) being marketed by Brand A in the eastern part of the United States that would be available sometime soon in the Minneapolis area. Participants were asked several questions to ensure that they had paid attention to and comprehended the key pieces of information in the table ("Does the table say that Brand A is gentle?" and "Does the table say that Brand A is of high quality?"). Those answering incorrectly to either question were excused from the study.

For the remainder of the subjects, interviewers removed the *Consumer Reports* table, gave them the survey questionnaire, and instructed them to fill it out on a self-administered basis at their own pace. Subjects first completed several questions about the typicality of the brand extension they had read about and their beliefs about the family brand for this product (Brand A). To capture possible order effects, half the subjects completed the typicality measures first and the belief measures second, and the other half completed them in the reverse order. Next, the subjects completed additional questions in the following order: (1) recognition of the brand extension information in the *Consumer Reports* table, (2) several filler questions unrelated to the major hypotheses of the study, (3) product usage for current Brand A products, and (4) selected demographic characteristics (age, income, education). Subjects were then debriefed about the purpose of the study and dismissed.

Subjects in the control group were recruited in the same manner as those participating in the experimental conditions but were not presented with the *Consumer Reports* information. They were told that we were interested in consumers' opinions about products and were asked to simply fill out several questions in an attached survey. The survey they completed contained the same measures as those included in the one for experimental subjects, with the exception of questions regarding brand extension typicality, recognition of *Consumer Reports* information, and several of the filler items.

Stimuli

The *Consumer Reports* table used in the experimental conditions consisted of a brand-by-attribute matrix, with six brands of shampoo or six brands of tissue (one of which was the Brand A extension) and four attributes per brand. The gentleness attribute was rated as either "high" or "low" for the Brand A extension, "high" for one other brand, "low" for one other brand, and "medium" for the three other brands. The quality attribute was rated as either "very good" or "poor" for the Brand A extension, "very good" for one other brand, "poor" for one other brand, "good" for one other brand, and "fair" for two other brands. The other two attributes were not relevant to the experimental manipulations. They included type (normal, oily, and/or dry) and size availability (7 oz., 10 oz., etc.) for shampoo and colors (white, pastels, and/or designer) and size availability (100, 150, 200 tissues, etc.) for facial tissue.

Dependent Measures

Consumers' perceptions of the typicality of the brand extension described in the *Consumer Reports* table were measured by four items, shown in Table 1, which were summed to form a multi-item scale. Beliefs about the family brand were also measured by multi-item scales, with three items measuring "quality" beliefs and three items measuring "gentleness" beliefs. Scales were constructed so that higher numbers indicated more typical brand extensions (for the typicality measure) and more positive beliefs about the family brand (for the belief measures).

Results

Manipulation Checks

Comprehension screening. Most of the people surveyed (196 out of 204, or 96%) passed the initial comprehension screening question. That is, most people were able to correctly state whether the *Consumer Reports* table of information said that the quality ratings were either high ("very good") or low ("poor")

TABLE 1
Summary of Dependent Measures

Measure/Items	Reliability (Coefficient Alpha)
Brand Extension Typicality	
(7-point scales)	
Similar-Dissimilar to Brand A image	$\alpha = .98$
Consistent-Inconsistent with Brand A image	
Typical-Atypical of Brand A image	
Representative-Unrepresentative of the Brand A image	
Family Brand Beliefs	
(7-point scales)	
Brand A products are very gentle: strongly agree-strongly disagree extremely likely-extremely unlikely very probable-not at all probable	$\alpha = .92$
Brand A products are high quality: strongly agree-strongly disagree extremely likely-extremely unlikely very probable-not at all probable	$\alpha = .97$

and that the gentleness ratings were either high or low.⁵

A second comprehension screening question, for those who passed the initial screener, was completed later in the experiment in the form of a recognition task. Specifically, subjects were asked what they could remember about the information in the *Consumer Reports* table. Embedded within six items were questions about whether the new shampoo or tissue product shown in the table was described as "being very good quality" and as "being very gentle." We expected to find that recognition, measured subsequent to the typicality and belief measures, would yield accurate judgments about the *Consumer Reports* information, particularly since all participants passed the initial screener. While this was the case when the table information was consistent with the brand's image (i.e., 89% of people in the high-gentleness stimulus condition responded correctly to this cue; 91% of people in the high-quality stimulus condition responded correctly to that cue), not surprisingly, more errors occurred when the information was inconsistent with the brand's image. About 81% of the people in the low-gentleness stimulus conditions answered this item

⁵Interestingly, those individuals who failed the screener tended to fall into the high-quality, low-gentleness cell (75% of those who failed the screener). It seems likely that when only one cue was inconsistent, particularly the gentleness cue that is so salient as a family brand belief, subjects misread or miscomprehended the stimulus materials. By contrast, when both cues were inconsistent, no errors occurred.

correctly, and 84% of the people in the low-quality stimulus conditions answered the quality cue correctly. To be consistent with the method used for the initial comprehension screener, those who failed either the gentleness or quality recognition item were omitted from subsequent data analyses.⁶

Brand extension typicality. Consistent with the pretest findings, brand extensions with one inconsistent cue (either low gentleness or low quality) were viewed as moderately typical of the family brand by virtue of being rated around the midpoint of the scale ($\bar{X} = 4.20$ and 4.62 for shampoo extensions and $\bar{X} = 4.25$ and 4.56 for tissue extensions). Furthermore, as expected, brand extensions with two inconsistent cues (low gentleness and low quality) were viewed as low in typicality, being rated well below the midpoint of the scale ($\bar{X} = 2.97$ for the shampoo category and $\bar{X} = 2.25$ for the tissue category) and less typical than either of the extensions with one inconsistent attribute (for shampoo extensions, $t(1,79) = 3.46, p < .01$, and $t(1,79) = 2.57, p = .01$, for contrasts with the low-gentleness/high-quality and high-gentleness/low-quality conditions, respectively; for tissue extensions, $t(1,80) = 4.30, p < .01$, and $t(1,80) = 4.97, p < .01$, for contrasts with the low-gentleness/high-quality and high-gentleness/low-quality conditions, respectively).

Typicality judgments were analyzed further to determine whether brand extensions with one inconsistent cue (either low gentleness or low quality) and two inconsistent cues (low gentleness and low quality) were perceived consistently across product categories (shampoo versus tissue) and order conditions (belief measures followed by typicality measures versus typicality measures followed by belief measures). The results indicated that typicality perceptions were robust across these experimental conditions, with product category effects and order effects failing to reach significance (all F 's < 1). Thus, the manipulation checks for brand extension typicality were strongly supported.

Family Brand Beliefs

Given that the manipulation checks were successful, we were able to examine predictions from the bookkeeping versus typicality-based models regarding dilution of beliefs about the family brand name (hypotheses 1 and 2). Remember that for the bookkeeping model, belief dilution was expected when either one

cue was inconsistent or both cues were inconsistent with the prior family brand belief. That is, relative to the control group, the *gentleness beliefs* were expected to be diluted in both the low-gentleness, high-quality and the low-gentleness, low-quality conditions, and *quality beliefs* were expected to be diluted in both the low-quality, high-gentleness and the low-quality, low-gentleness conditions. By contrast, for the typicality-based model, belief dilution was expected for the moderate typicality conditions (i.e., with one cue inconsistent) but *not* for the low-typicality condition (i.e., with two cues inconsistent).

These alternative hypotheses were initially tested by conducting a set of planned contrasts that compared the means for the gentleness and quality belief measures against those of the control group. Specifically, within each product category, contrasts for the gentleness beliefs were performed for the appropriate one inconsistent cue condition (low gentleness, high quality) and the two inconsistent cues condition (low gentleness, low quality) against the control group. Similarly, for quality beliefs, contrasts were performed for the appropriate one inconsistent cue condition (high gentleness, low quality) and the two inconsistent cues condition (low gentleness, low quality) against the control group.

During the course of the analysis, however, it became apparent that differences in the belief measures had occurred as a result of the ordering of the dependent measures (belief followed by typicality measures versus typicality followed by belief measures). Specifically, three of the four order by inconsistent cue condition interactions were significant or approached significance (for shampoo, $F = 2.60, p < .08$, and $F = 1.31, n.s.$, for gentleness and quality beliefs, respectively; for tissue, $F = 4.07, p < .02$ and $F = 3.92, p < .02$, for gentleness and quality beliefs, respectively). In view of these results, analyses were pursued by conducting the necessary planned contrasts within each dependent measure order separately. Means and standard deviations within experimental condition, including dependent measure order, are presented in Table 2.

As an inspection of the means suggests, several significant dilution effects occurred for both the gentleness and quality beliefs, and the pattern of effects varied by order of dependent measures. *When beliefs were measured first*, prior to the typicality measures, results appear to support a bookkeeping model of dilution effects. That is, *gentleness beliefs* for conditions with either one or two inconsistent cues were significantly lower (diluted) relative to the control group, for extensions in both the shampoo and tissue categories (see Table 3 for contrasts with the control group and Figure 1A for a graphical representation of means). *Quality beliefs* showed a similar pat-

⁶The data were reanalyzed, including those subjects who failed the recognition screener, to determine whether the results were altered substantively by excluding the failures. In fact, they did not. Results (including recognition failures) showed changes in the pattern of significance in three of the twenty-four design cells; one change was in a direction consistent with the authors' predictions, whereas only two changes were in a direction inconsistent with their predictions.

TABLE 2
Means and Standard Deviations
for Belief Measures
by Experimental Conditions

Family Brand Belief	Low Gentleness High Quality	High Gentleness Low Quality	Low Gentleness Low Quality	Control Group
Beliefs Measured First				
Gentleness: Shampoo	4.27 (1.91)	5.87 (.94)	4.03 (1.62)	5.81 (1.01)
Tissue	4.56 (1.80)	6.30 (.60)	4.07 (1.59)	5.81 (1.01)
Quality: Shampoo	5.43 (1.13)	4.44 (1.68)	4.50 (1.54)	5.68 (.90)
Tissue	6.33 (.87)	4.18 (2.34)	4.77 (2.19)	5.68 (.90)
Typicality Measured First				
Gentleness: Shampoo	4.59 (1.61)	5.11 (1.38)	5.20 (1.63)	5.81 (1.01)
Tissue	4.53 (1.31)	6.13 (.70)	5.79 (.94)	5.81 (1.01)
Quality: Shampoo	4.74 (1.22)	4.93 (.86)	4.83 (1.57)	5.68 (.90)
Tissue	5.47 (.86)	5.62 (.99)	5.54 (1.17)	5.68 (.90)

tern of effects. Three of the four means for conditions with either one or two inconsistent cues were significantly lower (diluted) than those of the control group, for extensions in both the shampoo and tissue categories, with the fourth mean approaching significance (see Table 3 for contrasts and Figure 1B for a graphic representation of means). Therefore, when beliefs were measured immediately following presentation of the *Consumers Reports* data and prior to judgments of typicality, results strongly support a bookkeeping model.

Results of the second order condition, when typicality was measured first, prior to measures of beliefs, yielded quite different conclusions. *Gentleness beliefs* were diluted in a fashion consistent with the typicality-based model. That is, extensions with one inconsistent cue (i.e., the moderately typical extension) yielded dilution of gentleness beliefs and extensions with two inconsistent cues (i.e., the low-typi-

cality extension) did *not* yield dilution of gentleness beliefs for both shampoo and tissue categories (see Table 3 for contrasts with the control group and Figure 1C for a graphical representation of means). *Quality beliefs*, on the other hand, were not diluted in the presence of extensions with either one or two inconsistent cues for either shampoo or tissue categories (see Table 3 for contrasts and Figure 1D for a graphical representation of means).⁷ Possible explanations for the lack of dilution effects in quality beliefs are discussed below.

⁷One of these four contrasts with the control group approached significance ($p < .07$). While not pertinent to the hypotheses, the authors found dilution effects for quality beliefs in the low-gentleness, high-quality cell (see Table 3) for the shampoo extension. While this result could suggest that, for shampoo, the gentleness and quality attributes may have interacted with one another, other data (e.g., pretest and typicality manipulation results) suggest otherwise. Also, since this result was not part of a general pattern in the results, its source was not pursued further.

TABLE 3
T-Values For Contrasts of
Experimental Conditions With Control Group

Family Brand Belief	Low Gentleness High Quality	High Gentleness Low Quality	Low Gentleness Low Quality
Beliefs Measured First			
Gentleness: Shampoo	3.11***	.15	3.58***
Tissue	2.90***	1.24	4.19***
Quality: Shampoo	.54	3.02***	2.60***
Tissue	1.28	3.15***	1.85*
Typicality Measured First			
Gentleness: Shampoo	2.35**	1.35	1.22
Tissue	3.07***	.85	.03
Quality: Shampoo	1.99**	1.60	1.87*
Tissue	.43	.14	.25

Note: *** $p \leq .01$
 ** $p \leq .05$
 * $p \leq .075$

Discussion

These findings contribute to the growing literature on brand extensions by providing the first indication that unsuccessful brand extensions *can* dilute brand names by diminishing the favorable attribute beliefs consumers have learned to associate with the family brand name. Moreover, the data suggest that dilution is a complex phenomenon, emerging for certain types of brand extensions in only some types of situations. Implications of these findings for understanding when dilution is likely to occur, what theoretical model best describes dilution effects, and what managerial strategies can be employed to anticipate and manage dilution effects are discussed next.

Theoretical Implications

A categorization perspective was pursued to identify two theoretical models, the bookkeeping model and the typicality-based model, capable of making predictions about the effect of brand extension information on family brand beliefs. In testing the competing predictions from these models, support was found for both models, depending on the order of the dependent measures. In particular, the bookkeeping model was supported when family brand beliefs were measured first, and the typicality-based model received moderate support when typicality judgments were measured first. These patterns were not the result of differences in consumers' perceptions of typicality from

one order condition to the next. Rather, the differential *salience* of typicality judgments versus brand extension information at the time beliefs were rendered appears to be responsible for which model was supported.

Bookkeeping model. When consumers rated their beliefs about the family brand immediately after reading about the brand extension in the *Consumers Reports* table, thereby making the brand extension attribute information salient, results supported a bookkeeping model. Inconsistent attribute information led to a revision (dilution) of the corresponding family brand beliefs. As a result, when brand extension information about gentleness was inconsistent with Brand A's image, consumer perceptions of Brand A's gentleness were lowered (diluted). Similarly, when brand extension information about quality was inconsistent with Brand A's image, consumer perceptions of Brand A's quality were lowered (diluted).

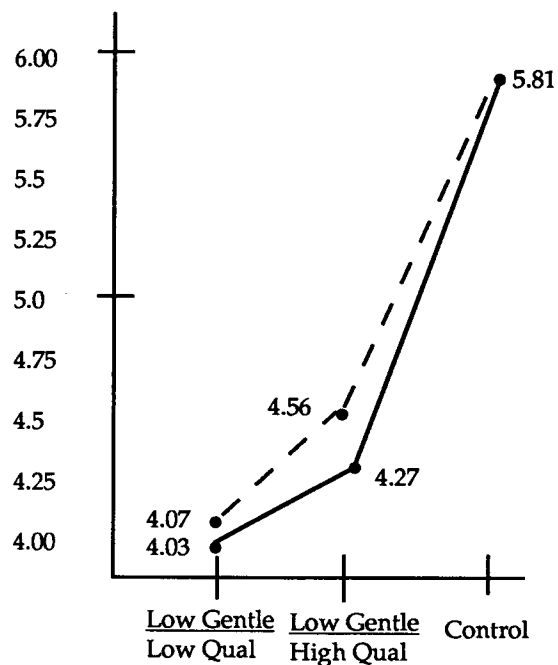
These findings suggest that the salience of the extension attribute information probably led to changes in corresponding beliefs about the family brand *and* that brand extension typicality was simply not as salient as brand extension information at the time family brand beliefs were assessed. An interesting process explanation for this pattern of findings, albeit tentative, may be that, when inconsistent extension attributes are most salient to the consumer, piecemeal rather than category-based processing (Fiske and Pavelchak

FIGURE 1
Mean Beliefs About the Family Brand by Experimental Condition

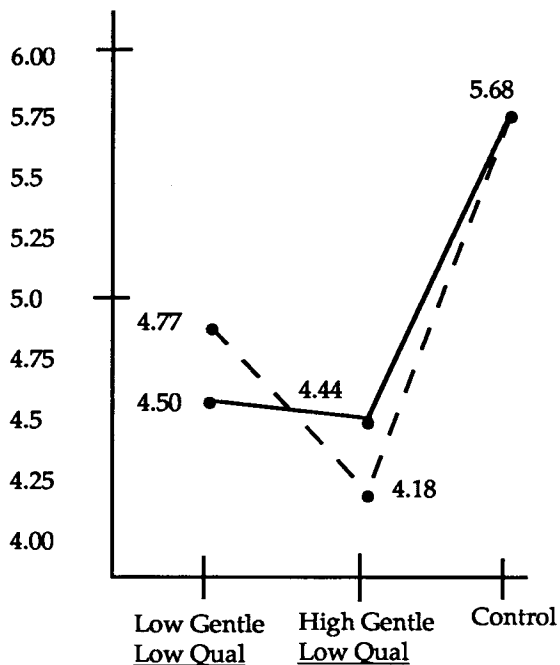
— Shampoo
 - - - Tissue

Beliefs Measured First

A. Gentleness Beliefs¹

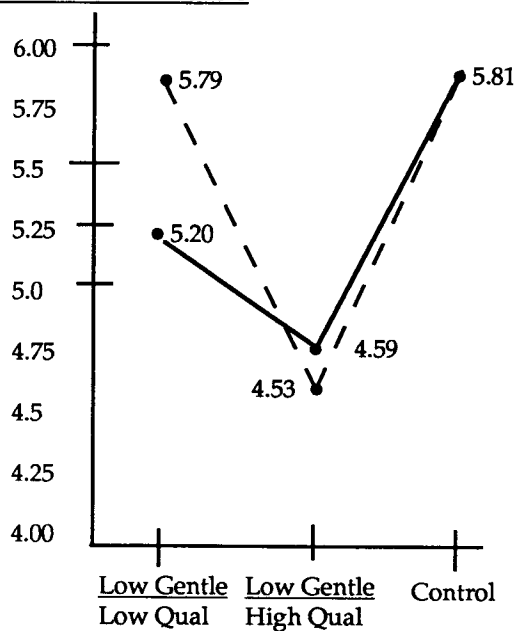


B. Quality Beliefs

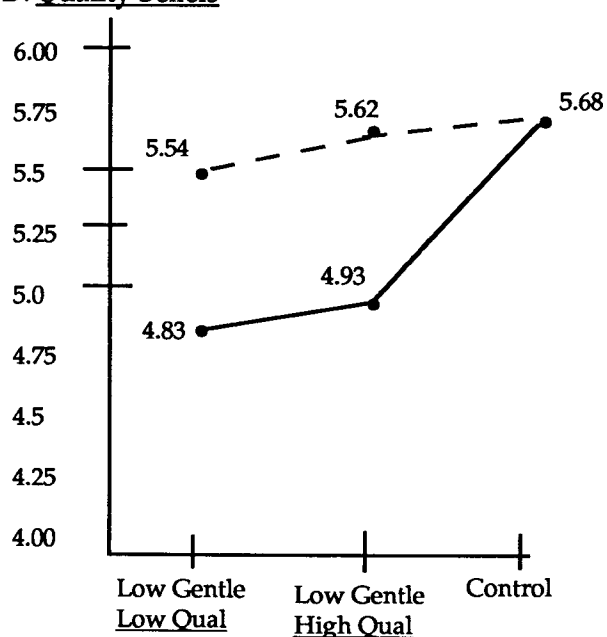


Typicality Measured First

C. Gentleness Beliefs



D. Quality Beliefs



¹Note that, as indicated in Hypotheses 2 and 3, only conditions that include low-gentleness attribute information are compared for gentleness beliefs. Analogously, for quality beliefs, only conditions that include low-quality attribute information are compared.

1986) is likely to occur (see also Boush and Loken 1991, Romeo 1991).

Typicality-based model. When consumers rated their beliefs about the family brand immediately after rating how typical the brand extension was of the family brand, thereby increasing the salience of their typicality judgments, a different picture emerged from the results. In this case, dilution of family brand beliefs was limited to only certain types of brand extensions and certain types of beliefs. Consistent with a typicality-based model, dilution did *not* occur for brand extensions perceived to be atypical of the family brand image (i.e., two inconsistent attributes). Also consistent with this model was the finding that inconsistent attribute information about the extension being low in gentleness led to dilution of corresponding family brand beliefs only when that information was presented in the context of a moderately typical extension (i.e., one inconsistent attribute for either shampoo or tissue). Analogous to conclusions regarding the bookkeeping model, a process explanation for these findings, although speculative, may be proposed. When typicality judgments were made salient by measuring them prior to family brand beliefs, typicality perceptions may have induced category-based (rather than piecemeal) processing and driven gentleness belief ratings according to a typicality-based model.

However, an unexpected finding was the lack of dilution effects for quality beliefs, even for brand extensions perceived to be moderately typical of the family brand. These results support neither the bookkeeping model nor the typicality-based model. In attempting to explain this anomaly, we examined typicality ratings for the high-gentleness, low-quality conditions to see if consumers perceived them as moderately typical (as expected) or if they perceived them as low or high in typicality, which could explain the lack of dilution. An inspection of typicality ratings, however, revealed that the high-gentleness, low-quality condition was perceived as moderately typical for both shampoo and tissue categories, as expected.

Having ruled out this possibility, the most promising explanation appears to be that typicality is more likely to affect beliefs that relate to core or distinctive attributes. Though quality was a salient belief for the family brand category examined here, it may not be as central or distinctive as gentleness in defining the family brand image. Accordingly, dilution effects were found for the distinctive “gentleness” attribute but were absent for the more general “quality” attribute.

This explanation is in line with the absence of di-

lution effects in earlier studies by Keller and Aaker (1992) and Romeo (1991). In both studies, dilution was measured with respect to a global feature such as “quality” or “success.” Furthermore, like the present study, in which dilution did not occur when typicality judgments preceded belief measures, these prior studies preceded the measurement of global beliefs with a summary judgment of the brand extension, either a judgment of the extension’s “fit” with the parent brand (Keller and Aaker 1992) or an overall evaluation of the brand extension itself (Romeo 1991). An interesting speculation at this point is whether, without such summary judgments, dilution effects would have emerged in these previous studies.

Managerial Implications

The findings suggest several factors that need to be considered in assessing the risk of launching brand extensions and several directions for managers hoping to limit the damage inflicted by brand extension failures.

Risk assessment. Our data suggest that well-established brand names can be hurt, in the eyes of consumers, by certain kinds of brand extensions. Extensions delivering attributes that are at odds with what consumers expect from the family brand can produce dilution of the specific beliefs associated with the family brand name. Though early research on dilution has failed to find much of a negative impact from brand extensions, our findings confirm that firms are at risk in launching brand extensions that contain attributes that are incompatible with or negate favorable family brand beliefs. Furthermore, the degree of risk is likely to vary as a function of several factors.

First, the risk of brand name dilution appears to be greater for brand extensions that are perceived to be moderately typical of the family brand. Regardless of which theoretical model was operative—the bookkeeping or typicality-based model—family brand beliefs were diluted for brand extensions viewed as moderately typical, that is, extensions that were consistent with some expectations about the family brand but not others. By contrast, brand extensions perceived to be clearly different from products offered under the family brand name, as a result of delivering atypical product attributes, carried a more moderate degree of risk, with virtually no dilution in cases where the brand extension’s typicality was salient to consumers. Interestingly, these differences in risk are offset by prior research findings that moderately typical extensions benefit more from the equity associated with

the family brand name than do atypical brand extensions (Boush et al 1987, Aaker and Keller 1990).

Second, the risk of brand name dilution appears to be more evident for some types of beliefs than others. In this study, for example, dilution was more apparent for gentleness beliefs than for quality beliefs associated with the family brand name. Because only two attributes were considered here, conclusions regarding types of attribute beliefs must be considered speculative at this point. However, an interesting possibility is that beliefs about more global and less distinctive attributes (e.g., quality) are more immune to dilution than beliefs about very specific and distinctive attributes (e.g., gentleness).

Finally, the findings suggest that dilution may not be forestalled by launching brand extensions in different product categories than those currently occupied by the family brand. In this study, dilution effects were, for the most part, consistent across product categories that were the same as or different from those marketed under the family brand name. Though previous research shows that the similarity between the extension category and the family brand category drives consumer perceptions of how favorable or successful the extension will be, similarity between the extension and the family brand category was *not* a strong determinant of dilution of the family brand beliefs in this study. The most plausible explanation for this disparity is that brand extension studies have typically given consumers very limited descriptions of the extensions, including brand name and product category, whereas this study (as well as others examining brand dilution) involved giving consumers very detailed and specific attribute descriptions and ratings for the extensions. It seems likely that specific attribute data outweighed any possible effects resulting from product category alone. Nevertheless, since only two product categories were used in the present study, these conclusions are speculative and require further study.

Damage control. The results have additional implications for "damage control" in the face of an unsuccessful brand extension launch. First, and perhaps foremost, the findings suggest the importance of assessing the extent of damage (or dilution) in terms of *specific* attribute beliefs about the family brand. Global measures of overall brand image or attitude may not pick up the true extent of the damage that has been done to the family brand name by an unsuccessful brand extension. Even though the data on dilution effects are still sketchy at this point, a conservative strategy would be to measure both global and specific beliefs in damage assessments.

Second, the findings suggest several directions for diminishing the degree of damage once it has occurred. One strategy would be to increase consumer

perceptions that the brand extension is atypical of the family brand. For example, this might be accomplished by placing more "distance" between the extension and family brand through repackaging to make the extension appear more dissimilar and through abatement of joint promotional programs and in-store displays featuring the extension with other family brands.

Alternatively, a second strategy would be to increase the veracity and saliency of prior beliefs about the family brand name. This approach capitalizes on the fact that consumers tend to favor their prior beliefs over new information (relating to an unsuccessful brand extension in this case). Therefore, it may be effective to shore up the positive associations consumers hold about the family brand name through increased advertising for successful family brands or through corporate image advertising.

Future Research

Our findings raise several questions of importance for future research. One issue concerns whether the dilution effects found in this study will emerge with natural exposure conditions rather than the forced exposure technique used here. In this study, consumers were forced to pay attention to the new brand extension information and were subsequently questioned to ensure that they had done so. This procedure, while necessary to rule out inattention as a potential source of manipulation failure, may have nevertheless heightened dilution effects over those that might be obtained under more natural conditions.

Furthermore, the study's ecological validity may have been impaired by the heightened salience of the brand extension information. Under natural exposure conditions, consumers may be less likely to recall brand extension information when evaluating the family brand. An encoding specificity hypothesis would argue that maintaining comparable contexts at encoding (i.e., when presenting brand extension information) and at retrieval (i.e., when measuring family brand beliefs) should have increased the likelihood of direct comparisons of the extension and the family brand, perhaps creating greater dilution effects. A contrasting hypothesis might argue that repetition of brand extension information, which is likely to be found in more natural settings, should strengthen dilution effects over and above those found in this study that used a single exposure procedure.

Another consideration in the present research was that the inconsistent information consumers received about the brand extension would probably be perceived by them as negative information, whereas the family brand beliefs pertained to positive attributes. An interesting question for future research is to what extent brand "enhancement" rather than brand "di-

lution" takes place when extensions are perceived positively and as consistent with the family brand's image. Also important is whether the same dilution effects found here would exist for family brand beliefs that are initially negative; that is, would an extension perceived as moderately typical, with positive attributes, change the negative family brand beliefs? Additional research is also certainly warranted to determine whether the same dilution effects found in the present study will occur through direct experience with the brand extension rather than the word-of-mouth route taken here. Although it might appear that direct experience with a brand extension would increase the salience of inconsistent cues, and thereby produce even greater dilution effects, it may also be the case that consumers would simply distort their experience to be consistent with prior beliefs about a well-liked brand name, resulting in smaller dilution effects.

Conclusion

In pursuing these lines of inquiry, we believe the conceptual approaches described here can provide a useful starting point for future research. Although the topic of how new information impacts or changes individuals' prior beliefs has been virtually ignored in the psychological literature in recent years, the idea of linking categorization concepts and belief change presents an interesting direction for brand extension researchers. The "typicality" concept is similar in some ways to the "fit" construct proposed by several researchers in this area, but it also provides a concrete link to theoretical areas of psychological research (e.g., categorization theory) which may further our ability to make predictions regarding the likely impact of brand extensions.

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