

THE UNIVERSITY OF TEXAS AT SAN ANTONIO, COLLEGE OF BUSINESS

Working Paper SERIES

Date April 20, 2012

WP # 0019MKT-249-2012

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Authors' Note: The authors would like to thank Mark Nespoli for assistance with data collection and Josh Ackerman, Anne Roggeveen, and L. J. Shrum for comments on the manuscript.

Contribution Statement: Selecting good brand names for brand extensions is an important task for marketers to undertake. One method for brand name innovation is to modify an existing brand name linguistically, retaining some familiar elements (e.g., McCafe, an extension of McDonald's). To date, there has been no systematic research to determine what the optimal amount of linguistic innovation might be for brand names. However, linguistic theory allows for fairly specific predictions regarding such optimization. Using a highly controlled methodology based on linguistic rules, we test specific hypotheses pertaining to optimization, replicate our basic findings across marketing scenarios, identify boundary conditions for our basic pattern of effects, and provide the first set of phonetic guidelines regarding brand name innovation.

Abstract

When developing a new brand name, similarity of the new brand name to an existing brand name may affect perceptions of the new brand name. However, marketers typically have little guidance on the optimal level of similarity versus originality. Based on linguistic theory, we develop a method to determine this optimal level. In four experiments, we examine the phonetic similarity of a company's new brand names to the company's original brand name, implementing a highly controlled methodology based on linguistic rules. When pre-existing attitudes towards a company are positive, an inverted U-shaped pattern is observed in brand name attitudes, such that moderate levels of phonetic similarity are preferred over closer or more distant levels of phonetic similarity. When pre-existing attitudes towards a company are negative, an opposite, U-shaped pattern is observed, such that moderate levels of phonetic similarity are less preferred over closer or more distant levels of phonetic similarity. However, when there are no pre-existing attitudes towards the company, a direct, linear relation between phonetic similarity and attitudes is observed, such that close levels are preferred over moderate levels which, in turn, are preferred over distant levels, consistent with a simple familiarity effect on brand name attitudes.

JEL Codes: M30, M31

Keywords: Brand Names, Linguistics, Attitudes

Suppose that a certain brand name, such as Ukad, is very familiar to consumers. The firm that owns Ukad is about to enter the market with another line of products, and it must decide what to name this new brand. Should the firm develop a name that is very similar to the original brand name (Bellman 2005), or develop a novel brand name? On the one hand, similarity to the original brand may lead to positive outcomes based on a simple familiarity effect. On the other hand, a lower level of similarity to the original brand may lead to positive outcomes based on novelty effects.

Selecting good brand names for brand extensions is an important task for marketers to undertake. One method for brand name innovation is to modify an existing brand name linguistically, retaining some familiar elements (e.g., McCafe, an extension of McDonald's). To date, there has been no systematic research to determine what the optimal amount of linguistic innovation might be for brand names. However, linguistic theory allows for fairly specific predictions regarding such optimization. Using a highly controlled methodology based on linguistic rules, in four experiments we test specific predictions pertaining to optimization, replicate our basic findings across marketing scenarios, identify boundary conditions for our basic pattern of effects, and provide the first set of phonetic guidelines regarding brand name innovation. Our predictions are based on the familiarity effect (Zajonc 1968) and the Optimal Innovation Hypothesis (Giora et al. 2004), which suggests that innovations that allow for the reconstruction of the familiar within a meaningful novelty elicit the most positive brand name attitudes.

**TENSION BETWEEN PLEASURE IN THE FAMILIAR
AND PLEASURE IN THE NOVEL**

Similarity plays an important role in the formation of attitudes, as well as consequential consumption-related activities such as word of mouth (WOM), purchase intention, or search behavior. Research on the effect of similarity repeatedly shows that similarity elevates positive attitudes, due to the pleasing and comforting effect of familiarity (Freud 1960; Harler 1996). Merely encountering a familiar object leads to more positive attitudes towards the object (Zajonc 1968). For example, Kohli, Harich, and Leuthesser (2005) found an improvement in evaluations of non-meaningful brand names following repeated exposure. The authors suggest that brand names also influence evaluations of quality and other product attributes. A large amount of research on the effect of similarity, such as first name similarity (Burger et al. 2004; Garner 2005; Gueguen 2003), and similarity of the first letter of a person's name and a brand name (e.g., Brendl et al. 2005) consistently shows that increased similarity positively impacts attitudes and behavioral measure (e.g., compliance with requests). Further, the familiarity principle applies both to people and objects (Brehm et al. 2006).

When an existing brand name is familiar to consumers, a new brand name that is similar to the existing one produces positive perceptions (Martinez, Polo, and Chernatony 2008). The authors also find that the more familiar consumers are with the original brand name, the more positive their attitudes towards the brand image after introducing the brand extension. Thus, it is plausible that a simple familiarity effect can explain and predict attitudes towards new brand names: the more similar a new brand name is to a familiar one, the more likely it is that attitudes will be more favorable towards the new brand name. The recommendation for a marketer, then, would be to minimally deviate from the familiar brand name, as familiarity generally increases positive attitudes.

However, research on consumer innovation suggests that consumers may enjoy discovering new uses of products (Hirschman 1980a, 1980b), as well as novel experiences (e.g. Bianchi 1998; Bello and Etzel 1985), as that allows consumers to avoid the boredom of the familiar (Bornstein & D'Agostino 1992). A marketer who sticks to the familiar may lose this pleasurable effect of innovation. Therefore, it is important to find guidelines that can predict the amount of innovation that would elicit optimally favorable attitudes towards a new brand name. In other words, the question a marketer may face when planning to introduce a new brand name is how to vary the brand name so as to maximize interest and favorable attitudes towards the new brand name. The question is, to what extent does research on product innovation translate to brand name innovation? Product innovation research suggests that more novel (less similar) brand names may be more successful, a prediction different from a simple familiarity effect. Alternatively, there may be a compromise, or optimal balance between the familiar and the novel. In fact, research in linguistics suggests that there is.

HYPOTHESES DEVELOPMENT: OPTIMAL BRAND NAME INNOVATION

In the area of product innovation, an innovation that does not have an added value or meaning risks failure (e.g., bizarre products, which are high on innovation but low on usability; see Goldenberg et al. 2003). Consumers enjoy innovative products, such as the Prius Hybrid green car, if they value the meaning of the innovation (Ozaki and Sevastyanova 2011). Moreover, similarity of the innovative product to a familiar one can vastly influence adoption of new products (Moreau, Lehmann, and Markman 2001). When considering brand name innovation, meaningfulness is important for the brand name's success. The meaning that the

familiar brand name has for the consumer may play a role in the success or failure of new brand names that are variations of it. Thus, in brand name innovation, it matters whether consumers have formed attitudes towards the original, familiar brand name.

Research on language creativity shows that an innovation that allows for the recognition of a familiar experience is more pleasurable than a totally familiar one or a totally novel one. Rather than pure familiarity or pure novelty (Brinker 1988; Gerard 1764; Home 1765), it is the spin on the familiar that is most optimal (Giora et al. 2004). For example, expressions like an airport duty free sign which reads “Don’t leave without a good buy,” or a political sticker that reads “you don’t know your right from your left,” include twists on familiar expressions, which reminds one of a familiar expression but also bears some additional meaning. It was empirically shown that such language innovations are more pleasurable than the original expression or innovations that did not remind one of the original expression (e.g. Giora, Kotler, and Shuval forthcoming). A specific theory in linguistic innovation literature provides clear guidelines as to the optimal innovation. The Optimal Innovation Hypothesis (Giora et al. 2004, 116) posits that optimal innovation occurs when a stimulus is novel, yet allows for the automatic recoverability of a familiar entity (i.e., the similarity and difference between the novel stimulus and the familiar entity can be seen; see also Giora 2003, 176–84).

Following the Optimal Innovation Hypothesis, we suggest that there is an optimal degree of innovation in new brand names, including the added value of a meaningful innovation and a reminder of the familiar brand name. Thus, new brand names that are too distant from a familiar brand name and do not remind individuals of the familiar brand name may elicit less positive attitudes than variations that allow for recall of the familiar brand name. However, new brand names that are too similar to familiar brand names do not have sufficient added value, and

therefore may also not elicit favorable attitudes. If so, too similar and too distant variations should elicit less positive attitudes compared with moderate variations. We therefore predict that:

H1a: When pre-existing attitudes towards a familiar brand name are positive, phonetic similarity of new brand name variations will elicit an inverted U-shaped pattern of brand name attitudes, such that moderate phonetic variations will elicit the most favorable brand name attitudes in comparison to closer or more distant variations.

However, when a brand name bears a negative meaning in the consumer's perception, an opposite pattern should emerge, that of a regular U-shaped pattern. The reason for this is that the moderate variation is now a meaningful innovation that reminds consumers of a non-favored brand name. The close innovation is seemingly even more of a reminder of the non-favored brand, but since it is too close to the original, the innovation bears no meaning and the negative effect on attitudes is attenuated. The distant innovation is a weaker reminder of the disliked brand name and therefore attitudes will be higher than towards the moderate innovation. Thus, we suggest that:

H1b: When pre-existing attitudes towards a familiar brand name are negative, phonetic similarity of new brand name variations will elicit a U-shaped pattern of brand name attitudes, such that moderate variations will elicit the least favorable brand name attitudes in comparison to closer or more distant variations.

Importantly, the experiments supporting the familiarity principle conducted by Zajonc (1968) and others (e.g. Brendl et al. 2005) employ stimuli that elicit no particular pre-existing attitudes, such as letters, first names, faces, and symbols. The attitudes towards the familiar object are neutral. It is plausible then that the familiarity and similarity principles are good predictors in cases where there is no meaning to the innovation, as the Optimal Innovation

Hypothesis would require. Therefore we suggest that when consumers do not hold pre-existing attitudes towards a familiar brand name, variations of this brand name would be better liked if they are more similar to the original brand name. More formally,

H2: When there are no pre-existing attitudes towards a familiar brand name, a simple familiarity effect will cause phonetic similarity of a new brand name to elicit the most favorable brand attitudes, such that a direct, linear pattern should emerge. Close variations will be preferred over moderate variations, which will, in turn be preferred over distant variations.

We tested these hypotheses in four experiments. In experiment 1, we created pre-existing attitudes towards fictitious companies through a manipulation based on how these companies were described (i.e., various good vs. bad practices), and induced familiarity through a number of tasks. In addition, level of phonetic similarity of brand name variations was manipulated. In experiment 2, we replicated the general design, but with a different manipulation of pre-existing attitudes towards companies—in this experiment, companies were described as local or foreign. In experiment 3, we eliminated the manipulation of pre-existing attitudes to determine the effects of mere familiarity on attitudes toward brand name variations. Finally, in experiment 4, we eliminated the familiarity manipulation to demonstrate that familiarity is a prerequisite for our predicted patterns to emerge.

PRETEST

The purpose of the pretest was to create a pool of 10 imaginary nonsense brand names that do not differ on preliminary attitudes and connotations, as well as three variations for each brand

name, representing a highly similar variation, a moderately similar variation, and a distant variation.

Construction of the Original Brand Names

We developed a set of rules (Giora et al. 2004) to construct an initial set of 30 brand names. The full set of rules appears in appendix A. Briefly, the rules dictate specific two- or three- syllable word structures, such as vowel-consonant-vowel-consonant (VCVC, for instance *akir*), to avoid complicated variation formation and obvious semantic associations. Single-syllable words, even meaningless ones, may resemble real words or have associations (For example, *mal*, from the Sapir [1929] study, could be associated with a mall [large], or with a negative prefix, as in *malcontent* or *maladaptive*.) We also avoided words with alphabetically successive letters, same pronunciation position consonants (such as b and p), rare or complex sounds (such as x or th), and complex letter combinations such as diphthongs (e.g., *eo*). Also, we did not use q because it is normally followed by u and creates a specific sound. Following these rules, we created 30 brand names. For each of the 30 brand names, three variations were created.

Construction of the Variations

We developed three sets of rules (to create three variations) to form a similar, a moderate, and a distant variation for each brand name. The rules for the highly similar variation allowed for only one replacement of a consonant or a vowel (e.g., original *vadu* – variant *vadi*). For the moderate variation, no replacements were allowed but consonants or vowels were switched (e.g., original

vadu – variant *vuda*). The distant variation rule allowed for the replacement of all vowels or all consonants, but not both (e.g., original *vadu* – variant *samu*). Thus, 30 original brand names and 90 variations were created.

Participants and Procedure

All 120 words were included in the pretest. Thirty university students (13 women and 17 men; mean age = 22.6,) from a southwestern university participated in this pretest for partial course credit. First, participants were asked to rate their perceived familiarity with the “original” brand names on a 7-point scale. The 30 words appeared one by one on a separate screen, with the phrase, “Please rate the word according to how familiar it sounds to you.” After that, associations and attitudes were assessed in a standard thought-listing task. Each of the 30 names appeared on a separate screen, with an empty box for thought listing. Participants were then asked to rate how positive or negative each of the names sounded, using a bipolar scale ranging from +3 (very positive) to -3 (very negative).

Finally, participants were randomly assigned to one of three phonetic similarity groups. Each participant was presented with a set of word pairs and asked to rate on a 7-point scale the degree to which the two words in each pair were similar to each other. Each group received only 30 pairs, representing the 30 originals along with one of three variants predesigned as very, moderately, or barely similar. The purpose of this design was to make sure every participant saw only one of the variants for each original word, to avoid comparison between pairs of originals and variations. After this, participants were debriefed, thanked, and dismissed.

Results

In general, the original names differed in degree of perceived familiarity. To target the most average words in our list, we picked the words whose rating of familiarity differed from the mean ($M = 2.75$) by no more than $SD = .05$. Following this procedure, 15 words were chosen. Next, we looked for words that formed a pattern of gradually descending degree of phonetic similarity along the three variations. That is, the 10 brand names that had three variations descending in perceived degree of similarity, according to our participants' ratings, were included in the stimuli pool. Finally, we checked the chosen words and their variations for perceived valence. We found no differences between the words in perceived valence. Namely, all 10 words and their three variations were rated around zero in perceived valence, indicating that they were not perceived either as positive or as negative. Familiarity scores for the original brand names and similarity ratings for the variations are reported in appendix B.

To summarize, the pretest served as a selection procedure for our experimental stimuli. Out of 30 brand names that were created following strict phonetic rules, we chose those 10 names that were moderately familiar, had variations that followed our intended pattern of phonetic similarity and that, along with their variants, elicited no initially valenced attitudes. An additional analysis made sure that the names chosen consisted of different phonemes, so that attitudes are not biased for reasons of phonetic symbolism (see Lowrey and Shrum, 2007).

EXPERIMENT 1

Participants and Procedure

Fifty-four undergraduate students from the same university (but who had not participated in the pretest) participated in this survey for partial course credit (26 women and 28 men; mean age = 25). To manipulate attitude valence, we varied the descriptions of the original (yet fictitious) brands; Participants read an introductory sentence that indicated that a) the names displayed in the red font are for brands that have been found to use environmentally-hazardous materials [this part of the sentence was also displayed in red]; and b) the names displayed in the green font are for brands that have been found to use only environmentally-friendly materials [this part of the sentence was also displayed in green]. Part of the sample read alternative formulations, in which the negative companies were described as engaging in corrupt management or were found to have a poor refund policy, and the positive companies were described as engaging only in ethical management practices or were found to have an excellent refund policy.

After reading this introduction, all participants got acquainted with the 10 original brand names chosen for the study. Five of the 10 names were presented in red throughout the familiarity stage, whereas the other five names were presented in green. Familiarity was enhanced through four tasks for all participants: first, they simply read each of the names. The names appeared on the screen one by one in a random order, and each name appeared four times during this stage. In the second stage, participants received a randomized list of the 10 names and were instructed to arrange them in alphabetical order by the first letter. In the third task, participants had to place the names in alphabetical order by the last letter. In the last task, participants received a list of all the names appearing randomly four times and were asked to use the computer mouse to drag all the occurrences of the same name to one of 10 designated boxes.

Following this familiarity stage, all participants rated the degree of perceived familiarity with each of the 10 names on a 7-point scale to ensure no initial familiarity bias across the original brand names. Participants then received a randomly ordered list of the 30 variations (three variations for each of the 10 original names), all displayed in a black font. For each variation, participants answered three questions on a 7-point scale: How much do you like this brand name? How likely are you to purchase a product with this brand name? How likely would you be to recommend a product with this brand name to a friend? Reliability of responses regarding liking, purchase intent, and WOM for each of the 30 variations was between $\alpha = .924$ and $\alpha = .813$. Thus, these three measures were combined into a composite measure of brand name attitude for each variation.

In the next stage of the procedure, participants received the 30 variations again in random order, and were asked to indicate their top 10 choices for five separate criteria: the most credible companies; the most enjoyable products, the most long-lasting products, the most popular products, and the most perfect brand names. Finally, participants were asked several demographic questions, after which they were debriefed, thanked, and dismissed.

Results

Calculation of Mean Attitude Towards the Six Types of Variations. Each participant had 30 mean composite brand name attitudes (i.e., one towards each of the 30 variations). Out of these 30 composite attitudes, a set of six mean attitudes was computed for each participant, in the following way. There were 10 original brand names, five of them representing good companies and five of them representing bad companies. For each of the original brand names belonging to

the two types of companies (good/bad) there were three variations (close, moderate, and distant in phonetic similarity). Thus, each participant had six mean attitudes—representing the participant's attitude towards close variations of good companies, moderate variations of good companies, and distant variations of good companies, as well as close variations of bad companies, moderate variations of bad companies, and distant variations of bad companies.

Tests of Hypotheses. We expected that moderate phonetic variations would produce the most favorable brand name attitudes for good companies compared to close and distant variations (an inverted U-shaped pattern) but just the opposite pattern (a regular U-shaped pattern) for bad companies. To test this hypothesis, we conducted a 2 (company: good vs. bad) x 3 (phonetic similarity: close, moderate, distant) repeated measures ANOVA, with company and phonetic similarity as within-subject factors and the alternative company descriptions (i.e., environmental/management/customer care) as a between-subjects factor. The phrasing factor had no significant main effect, therefore we collapsed all phrasings into one group ($F(1,52) = .964, p = .388$) The results of this analysis can be seen in figure 1. As expected, the company x phonetic similarity interaction was significant ($F(1, 52) = 10.54, p < .001$). As the figure shows, the predicted inverted U-shaped pattern for good companies, and the predicted regular U-shaped pattern for bad companies, were observed.

Planned contrasts revealed significantly higher attitudes towards the moderate variation ($M = 2.64$) than towards the close variation ($M = 2.34$) and towards the distant variation ($M = 2.25, F(1, 52) = 6.7, p < .003$) for the good companies. In contrast, for the bad companies, attitudes towards the moderate variation were significantly lower ($M = 2.25$) than towards the close variation ($M = 2.66$) or the distant variation ($M = 2.49, F(1, 52) = 5.9, p < .005$). While these mean differences are quite small, this is not surprising given the extremely subtle nature of

the phonetic similarity manipulations used in this research (Forgas 1999; Fussel and Moss 1998; Slatcher and Pennebaker 2006).

Insert figure 1 about here

Further Analyses. Participants also indicated the 10 most credible, most enjoyable, most long lasting, potentially most popular, and finally most perfect variations out of the randomized-order list of 30 variations. To calculate the ranking of each variation we first gave each variation within each participant a value, ranging from 0 (not in the box) through 1 (in the box, last place) to 10 (in the box, first place). Then we averaged the rankings for the five attributes for each variation, to receive a single ranking for each variation. Then six means were calculated to represent the five close, five moderate, and five distant variations for the good companies, as well as five close, five moderate, and five distant variations for the bad companies. We then conducted a 2 (good/bad company) x 3 (close/moderate/distant phonetic similarity) repeated measures ANOVA, with company and phonetic similarity as within-subject factors. As expected, the 2-way interaction was significant ($F(1, 52) = 14.23, p < .001$), with strikingly similar patterns as those obtained for the composite measure of brand name attitudes.

Planned contrasts revealed significantly higher preferences for the moderate phonetic variation ($M = 9.41$), compared to the close variation ($M = 8.3$) and the distant variation ($M = 7.0, F(1, 52) = 22.7, p < .001$) for the good companies. For the bad companies, the moderate phonetic variation was significantly less preferred on all five aspects ($M = 7.7$) than the close variation ($M = 10.9$) or the distant variation ($M = 11.2, F(1, 52) = 10.7, p < .001$). These results replicate those obtained for our main attitudinal measure.

Discussion

In this experiment, we trained our participants to get familiar with a set of 10 nonsense brand names, five of which were presented as belonging to good companies, and five others as belonging to bad companies. This manipulation was intended to create pre-existing attitudes towards the companies and their brand names. Our results suggest that the manipulation not only succeeded, but that it also affected attitudes towards phonetic variations of these brand names. Supporting our hypotheses H1a and H1b, our findings suggest that when attitudes towards the company are positive, variations of familiar brand names of that company elicit the most positive attitudes when they are moderately similar to the original brand name, compared to when the variation is either similar or distant from the original brand name. In contrast, when attitudes towards the company are negative, variations of familiar brand names of that company elicit the most negative attitudes when they are moderately similar to the original brand name, compared to when the variation is either similar or distant from the original brand name.

The most striking finding in this experiment is that the pattern of inverted U-shape for good companies and regular U-shape for bad companies was obtained despite the variations being completely randomized in order and appearing in a black font, so that our participants could not have any indication as to which variation belonged to which type of company (good or bad). The Optimal Innovation Hypothesis leading to our predictions was reaffirmed through the further analyses of the additional task in this experiment, where participants were asked to indicate their 10 preferred brand name variations, judging them on various dimensions of a company's success. We found that attitudes towards phonetic brand name variations held throughout various cognitive tasks.

To further explore the effects found in this experiment, we conducted experiment 2. In this experiment, we replace good/bad companies with local/foreign companies, in an effort to address in-group and out-group attitudes towards companies as a more complex indicator of positive and negative attitudes.

EXPERIMENT 2

In-group and out-group attitudes have previously been shown to affect perception and acceptance of companies and consumer goods (Escalas and Bettman 2005). Consumers may perceive local brand names more positively than foreign brand names (Loeffler 2002, Muniz and O'Guinn 2001). In this era of globalization, a question may be posed regarding the persistence of the difference between local and foreign brand name perceptions. The purpose of experiment 2 is to explore the effect of country of origin of a brand name on attitudes towards variations of this brand name. We follow hypotheses H1a and H1b in our predicted patterns of effects. Thus, we expect an inverted U-shaped pattern to emerge for local companies, and a regular U-shaped pattern to emerge for foreign companies.

Participants and Procedure

Fifty-five undergraduate students from the same university participated in this survey for course credit (21 women and 34 men; mean age = 23.7). In this experiment, we followed the same procedure as described in experiment 1, with one difference. In the familiarity manipulation phase, instead of the introductory sentence describing the green brand names as

belonging to good companies and the red brand names as belonging to bad companies, we had an introductory sentence that described green brand names as belonging to local companies and blue brand names as belonging to foreign companies. Blue was chosen as a more neutral font color than the red font used in experiment 1.

Results

Tests of Hypotheses. Following a similar procedure as in experiment 1, we obtained six means of attitudes towards the three close/moderate/distant variations of brand names for local companies and three close/moderate/distant variations of brand names for foreign companies. We then conducted a 2 (local/foreign company) x 3 (close/moderate/distant phonetic similarity) repeated measures ANOVA, with company and phonetic similarity as within-subject factors. The results of this analysis can be seen in figure 2. As expected, the company x phonetic similarity interaction was significant ($F(1, 53) = 6.9, p < .001$). As the figure shows, the predicted inverted U-shaped pattern for local companies, and the predicted regular U-shaped pattern for foreign companies, were observed.

Planned contrasts revealed significantly higher attitudes towards the moderate variation ($M = 2.61$) than towards the close variation ($M = 2.34$) and the distant variation ($M = 2.42, F(1, 53) = 6.9, p < .002$) for local companies. In contrast, for foreign companies, attitudes towards the moderate variation were significantly lower ($M = 2.53$) than towards the close variation ($M = 2.73$) or the distant variation.

Insert figure 2 about here

Further Analyses. In this experiment, participants were also asked to indicate the 10 most credible, most enjoyable, most long lasting, potentially most popular, and finally most perfect variations out of the randomized-order list of 30 variations. Following the same calculation approach, we once again obtained six means representing attitudes towards the three types of variations for brand names of the local versus foreign companies. We then conducted a 2 (local/foreign company) x 3 (close/moderate/distant phonetic similarity) repeated measures ANOVA, with company and phonetic similarity as within-subject factors. As expected, the 2-way interaction was significant ($F(1, 53) = 8.2, p < .001$), and similar patterns of effects were again obtained.

Planned contrasts revealed significantly higher preferences for the moderate phonetic variation ($M = 11.3$) compared to the close variation ($M = 9.7$) and the distant variation ($M = 9.3, F(1, 53) = 3.7, p < .03$) for the local companies. For the foreign companies, the moderate phonetic variation was significantly less favored on all aspects ($M = 9.2$) than the close variation ($M = 10.9$) and the distant variation ($M = 10.4, F(1, 53) = 3.6, p < .035$). These results replicate those obtained in experiment 1, in a more complex marketing scenario that investigates more subtly differential attitudes towards local versus foreign companies (rather than the more pronounced manipulation in experiment 1 that strongly manipulated good vs. bad companies).

Discussion

The findings of this experiment further support the Optimal Innovation Hypothesis, and are remarkably similar to the findings in experiment 1, although no indication for the quality of the

companies was provided except their identification as local or foreign. Our results also provide further data on attitudes towards local and foreign brand names.

However, as discussed in the background sections, our results may be different when no initial attitudes towards a company exist, as is often the case. We therefore conducted experiment 3, to test H2, that suggests a direct, linear relation between phonetic similarity and attitudes, assuming that without any additional reason such as pre-existing attitudes, only the familiarity effect would impact attitudes towards brand name innovations.

EXPERIMENT 3

Participants and Procedure

A total of 115 undergraduate students from the same university participated in this experiment (27 women and 88 men; mean age = 23.3). This experiment tests H2, following the same procedure as in experiments 1 and 2, with one difference. In this experiment, no biasing information about the 10 original brand names was provided to the participants, and the brand names were all displayed in a black font.

Results

Tests of Hypotheses. Calculation of the six means for the six types of variations was similar to the one in experiments 1 and 2. First, H2 predicts a main effect for phonetic similarity, such that a direct, linear pattern should emerge. Thus, and in keeping with the familiarity effect,

we would expect the close variants to elicit the most favorable responses, followed by the moderate variants, with distant variants eliciting the least favorable responses. Indeed, in the absence of pre-existing attitudes, this main effect emerged: $M_{\text{close}} = 2.86$, $M_{\text{moderate}} = 2.61$, $M_{\text{distant}} = 2.36$ ($F(1, 114) = 29.8$, $p < .001$).

Internal Analysis. Recall that, in this experiment, we did not actually have a group of positive (good or local) and negative (bad or foreign) companies. However, we conducted an internal analysis to ensure that the original brand names used in experiments 1 and 2 for good/bad versus local/foreign companies did not have any confounding effects. Thus, we conducted a 2 (positive/negative distinction for original brand names) x 3 (close/moderate/distant phonetic similarity) repeated measures ANOVA. The results of this analysis can be seen in figure 3. As predicted, the patterns of attitudes towards close, moderate, and distant variations represent a descending line that depicts the direct, linear relation between phonetic similarity and attitudes towards brand variations in the case of no pre-existing attitudes towards the original brand names. No interaction of original brand name type (good/bad vs. local/foreign) was found in this experiment ($F(1, 114) = .48$, $p = .62$). Distance (close/moderate/distant) showed a main effect on attitudes towards brand name variations suggesting that the more similar brand name variations were more favored than the moderate and more distant brand name variations, as hypothesized, and consistent with the familiarity effect. Planned contrasts revealed significantly higher attitudes towards the close variation for both good/local original brand names ($M = 2.88$) and bad/foreign original brand names ($M = 2.85$) compared with the moderate variations of good/local versus bad/foreign original brand names ($M = 2.63$, $M = 2.59$ respectively) and the distant variations ($M = 2.3$, $M = 2.42$ respectively, $F(1, 114) = 22.8$, $p < .001$, and $F(1, 114) = 10.2$, $p < .001$, respectively).

Insert figure 3 about here

Further Analyses. Participants also indicated the 10 most credible, most enjoyable, most long lasting, potentially most popular, and most perfect variations out of the randomized-order list of 30 variations. Similar to experiments 1 and 2, we obtained six mean scores to represent preferences for the three variations of brand names of original positive (good/local) and negative (bad/foreign) companies (again, in this experiment the companies were not marked as good/local or bad/foreign, and they are represented here in this way only for the sake of comparison to experiments 1 and 2). We conducted a 2 (positive/negative distinction for original brand names) x 3 (close/moderate/distant phonetic similarity) repeated measures ANOVA. In support of H2, no significant interaction of valence and distance on ranking was revealed, but a significant main effect of phonetic similarity on attitudes was, represented by rankings ($F(1, 114) = 20.4, p < .001$). Beyond that, we once again found a similar pattern suggesting that the more similar brand name variations were more favored than the moderate and more distant brand name variations. Planned contrasts revealed significantly higher attitudes towards the close variation for both originally positive ($M = 11.01$) and negative companies ($M = 11.16$) compared with the moderate variations ($M = 10.15, M = 9.84$ respectively) and towards the distant variations ($M = 9.11, M = 8.89$ respectively, $F(1, 114) = 45.4, p < .001$ and $F(1, 114) = 8.07, p < .005$, respectively).

Discussion

Results of the current experiment demonstrate that, in the case of no pre-existing attitudes towards a company, phonetic similarity has a direct, linear effect on perceptions of brand name variations. This is important, as the first two experiments demonstrated the role of pre-existing attitudes towards a company in the optimal degree of innovation on attitudes towards the brand name variations (i.e., pre-existing attitudes skew the effect of phonetic similarity on perceptions to form U-shaped effects, as the Optimal Innovation Hypothesis predicts). When no such pre-existing attitudes exist, the familiarity effect is a superior explanatory mechanism for our results.

Our next and final purpose is to test the underlying mechanism of familiarity, that serves as the explanation for the results obtained in our first three experiments. Thus, experiment 4 serves as a mechanism test.

EXPERIMENT 4

Participants and Procedure

Forty participants were enrolled in this experiment (12 women and 28 men; mean age = 22.2). The procedure was similar to that of experiment 3, with one difference: the entire familiarity manipulation was eliminated from the experiment. Thus, participants were immediately asked to rate their attitudes towards the 30 brand name variations.

Note that experiments 1, 2, and 3 used the same procedure of making participants familiar with brand names and then measuring their attitudes towards variations of those names. The familiarity manipulation was administered because our main hypothesis is that it is due to similarity with a familiar object that our effects occur. The purpose of the current experiment is

to test and reconfirm the fundamental effect of familiarity. We attempt to do this by omitting the familiarity manipulation altogether from the process. This should eliminate the effect of familiarity, and in turn inhibit or flatten the effects predicted in our hypotheses.

Results

Tests of Hypotheses. Calculation of the six means for the six types of variations was similar to that in experiment 3. We then conducted a 2 (positive/negative distinction for original brand names) x 3 (close/moderate/distant phonetic similarity) repeated measures ANOVA. As in experiment 3, in this experiment too we did not actually have a group of positive (good/local) and negative (bad/foreign) companies, but the analysis relates to the same groups of brand name variations to ensure the brand name variations exhibit similar attitudinal patterns. The results of this analysis can be seen in figure 4. As expected, the patterns of attitudes towards close, moderate, and distant variations for originally positive and negative companies form a flattened line, suggesting that it is indeed familiarity that causes the patterns we found in the previous experiments.

Insert figure 4 about here

Our results show no interaction of original company type (positive/negative) ($F(1, 38) = .36$, $p = .7$), as well as no main effect of distance (close/moderate/distant) ($F(1, 38) = .16$, $p = .86$), suggesting that familiarity plays a crucial role in the effect of degree of phonetic variation on

attitudes towards the new brand names. Planned contrasts revealed no significant effects for either originally positive or negative companies ($F(1, 38) = .09, p = .77$ and $F(1, 38) = .79, p = .38$, respectively). We also received no significant effects in further analysis relating to the additional task of indicating the 10 most preferred brand names to measure other attitudes.

Discussion

Our results in this experiment suggest that familiarity is the main reason for the phonetic similarity effects we found in experiments 1, 2, and 3. These findings also reconfirm the role of familiarity in similarity effects in general. In the next section we relate the importance of type of object and type of innovation to the effect of familiarity on attitudes towards innovations of the object.

GENERAL DISCUSSION

In this article we addressed a highly prominent phenomenon that has been overlooked in the literature: the degree of phonetic similarity of new brand names to familiar ones. We relied on the linguistic literature to theorize about the relation between degree of phonetic similarity with a familiar brand name and attitudes towards a brand name innovation. Our highly controlled methodological approach allows for a close look at these relationships. We used nonsense brand names, constructed following predefined language rules, to create a set of 10 original brand names. Then we made participants acquainted and familiar with these original brand names by way of various linguistic tasks. On the basis of these newly familiar brand names, we tested our

hypotheses regarding the effect of degree of phonetic similarity with a familiar brand name on attitudes towards the variations, in conditions of having versus not having pre-existing attitudes towards the familiar brand name. Through these careful manipulations we manage to distinguish between various conditions and to demonstrate the underlying mechanisms hypothesized.

The most remarkable effect we find in this work is that once participants were familiar with the originals, the originals were removed and participants were then exposed to the variations in an utterly random order and with no previous knowledge about them being variations of the original brand names. Nevertheless, a strikingly similar effect was found in different rating and judgment cognitive tasks the participants were asked to complete regarding the variations, suggesting that the effects we hypothesized are strong and generalizable.

It is possible that the manner of creating the brand names and their variations was partially the reason for the effects we have seen. We created the brand names and the variations following strict and repeating linguistic rules. It is possible that other rules could have created other effects or at least influenced our results in some way. As brand names in the real world are probably rarely created following linguistic rules, field research may contribute to the validity of our findings. Notably, the values of attitudes we obtained in the experiments were consistently below the mean of the scale, and seemingly did not differ from each other much, though the differences were significant. We propose that the reason for the relatively low values of liking or purchase intention is due to the fact that the names had no meaning and that the originals were totally unfamiliar to the respondents prior to participation in the experiments. This could have resulted in relatively low fluency, that in turn lowered attitudes (e.g. Lee and Labroo 2004; Schwarz 2004). As to the relatively small (though significant) differences between the values, it

is common in linguistic research that differences are small and significant (e.g. Forgas 1999; Fussell and Moss 1998; Slatcher and Pennebaker 2006).

Except for the degree of familiarity with the brand name and pre-existing attitudes towards the brand name or the company, there are additional effects like the number of different brand names the company has and the relations of similarity between its current brand names, the strength of the original brand name in the market, as well as the relation between the product lines represented by the original brand name and the new brand name. Those aspects may affect perceptions of innovations on brand names the company currently holds. Moreover, the similarity of the new brand name to an existing one may depend on the similarity of products as well. The current work focuses on brand names in a setting that is detached from the products these brand names may represent. Further research may explore the interaction between brand name similarity and product similarity on the perception of brand name and product innovations.

An interesting case may be when a different company makes a variation on an existing strong brand name, in order to attract potential customers and to penetrate the market with a borrowed halo. We expect similarity effects to be different for brand innovations created within a company, such as McDonalds and McCafé, and brand innovations that are created by competing companies, such as Nestle and Tastle. In the latter case, similarity may negatively affect attitudes towards the borrowing company, unrelated to the reputation of the borrowed company, because of the borrowing act itself. As companies sometimes consider making variations on familiar or even popular brand names, further research on the effects of brand innovation on brand names that are external to the company naming the brand may be interesting and important.

In this work we focused on nonsense brand names. However, in many cases brand names have semantic meaning or at least imply a certain meaning. For example, the brand name Puma

refers to a strong and fast predator. These attributes of a puma are delivered through the brand name. A variation on a meaningful brand name such as Puma may create an utterly different set of questions and predictions, and will probably require a different methodological approach for variation generation.

Finally, in line with the ideas regarding semantic brand name innovation, it is important to note that semantic innovation is not merely a manipulation of graphemes and phonemes of a word. Meaning can be altered in various ways—literally (as in Puma-Panther), or metaphorically (as in Puma-Rocket). Also, the variation of meaning depends on the dimension that is chosen for variation. For example, a puma is fast, but also furry, and it could also be considered merciless. Variations on more prototypical dimensions may create different effects than variations on less prototypical dimensions of the original brand names. We look forward to engaging in future research on semantic brand name innovation.

APPENDIX A

RULES FOR THE CREATION OF BRAND NAMES AND THEIR VARIATIONS

Rules For All Brand Names (Originals And Variations)

1. All names are 2 syllables - possible vowel-consonant arrangements: VCVC (adur),CVCV (cofa), CVCVC (tuman).
2. Avoid diphthongs (2 vowels, like “eo”) and long vowels (i.e. “ee”, “oo”).
3. Avoid using two C’s together (like “tr” in “train”) – also avoid “x”.
4. Avoid sh, ch, and th.
5. Avoid using the same vowel twice in a word.
6. No names ending with silent “e”.
7. Make sure to have an equal number for each V-C arrangement.
8. Make sure to include all alphabet consonants in the names.
9. Avoid using alphabetically successive letters in the same name.
10. Avoid using same-position consonants in the same name: b,p,f,v,w,m – produced at the lips; d,j,l,r,t,s,z,n – produced at tongue tip; h,k,g,c,y – produced at tongue base.
11. No “q”, since there would necessarily be a “u” after it, which would make it a special (=better remembered) word.

RULES FOR VARIATION CREATION – POSSIBLE REPLACEMENTS

Original	Similar Variation	Moderate Variation	Distant Variation
	Possible switches	Possible switches	Possible switches
VCVC (adur)	1 st V (<i>odur</i>) 2 nd V (<i>ader</i>) 1 st C (<i>agur</i>) 2 nd C (<i>adur</i>)	Switch C’s (<i>arud</i>) Switch V’s (<i>udar</i>)	All C’s (<i>abum</i>) All V’s (<i>idor</i>)
CVCV (cofa)	1 st V (<i>cifa</i>) 2 nd V (<i>cofu</i>) 1 st C (<i>dofa</i>) 2 nd C (<i>cosa</i>)	Switch C’s (<i>foca</i>) Switch V’s (<i>cafo</i>)	All C’s (<i>doma</i>) All V’s (<i>cifi</i>)
CVCVC (tuman)	1 st V (<i>timan</i>) 2 nd V (<i>tumen</i>) 1 st C (<i>guman</i>) 2 nd C (<i>tugan</i>) 3 rd C (<i>tumas</i>)	Switch C’s (<i>mutan</i>) Switch V’s (<i>tamun</i>)	All V’s (<i>temon</i>) All C’s (<i>sulaf</i>)

APPENDIX B: LIST OF BRAND NAMES AND THEIR VARIATIONS

“Positive” Brand names (familiarity score)	Close Variation	Moderate Variation	Distant Variation
Ukoz (1.89)	uhoz	uzok	ugor
Similarity to original:	4.56	4.33	2.78
Kani (2.92)	pani	kina	gasi
Similarity to original:	4.33	3.75	2.67
Funa (2.02)	funi	nufa	juca
Similarity to original:	4.78	3.33	3.00
Lafu (3.11)	lofu	falu	dapu
Similarity to original:	5.78	3.89	3.56
Dakip (2.17)	dagip	dikap	takiv
Similarity to original:	5.00	4.08	2.33
“Negative” Brand names (familiarity score)	Close Variation	Moderate Variation	Distant Variation
Udom (2.5)	ukom	umod	ulog
Similarity to original:	3.58	3.17	2.17
Vadu (2.75)	vadi	vuda	vodi
Similarity to original:	5.00	4.17	2.58
Duyo (2.50)	duya	doyu	juho
Similarity to original:	4.92	3.67	3.33
Rewo (3.00)	kewo	wero	bejo
Similarity to original:	5.33	3.67	2.11
Wogel (3.00)	vogel	gowel	Moyet
Similarity to original:	5.11	3.67	1.67

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FIGURE 1
ATTITUDES TOWARDS CLOSE, MODERATE, AND DISTANT VARIATIONS
OF FAMILIAR BRAND NAMES FOR GOOD AND BAD COMPANIES

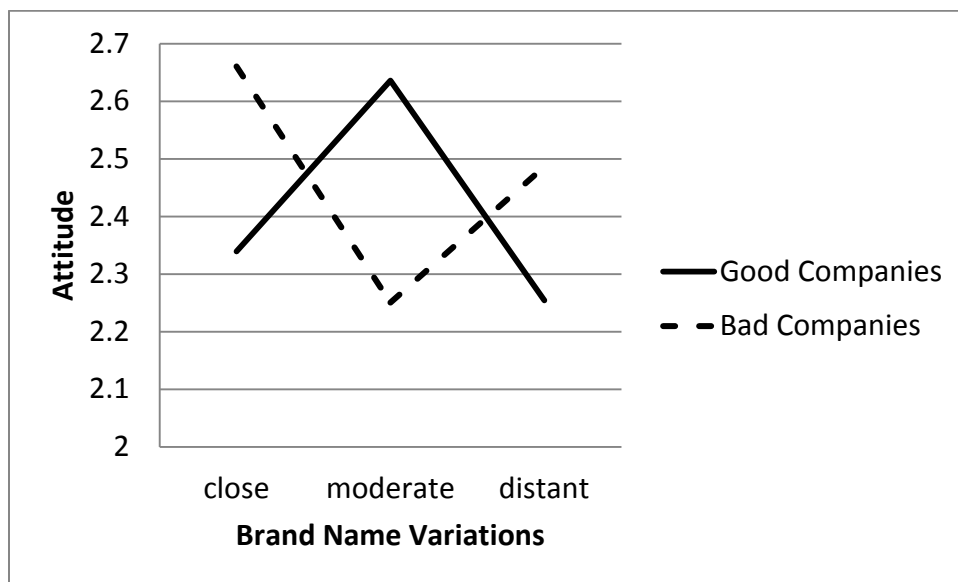


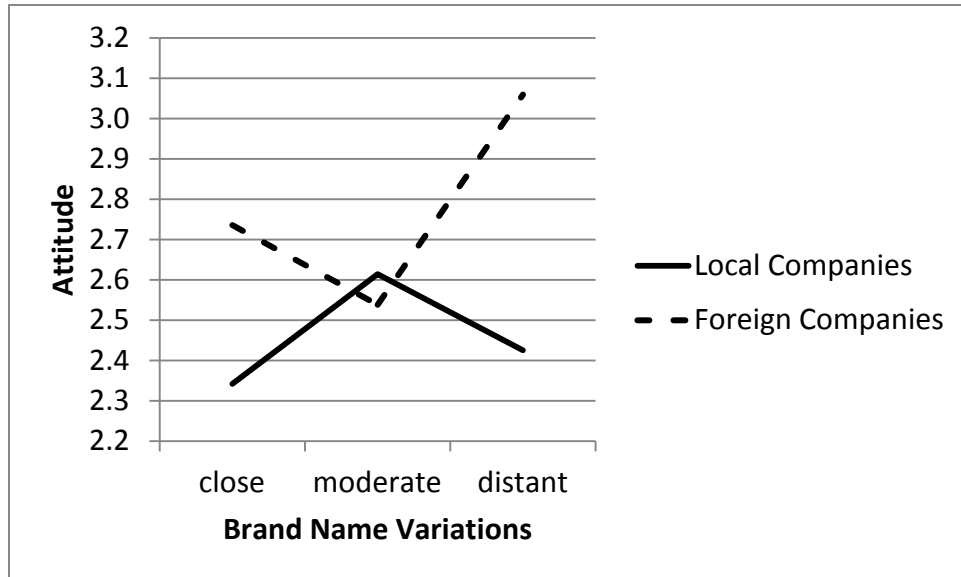
FIGURE 2**ATTITUDES TOWARDS CLOSE, MODERATE, AND DISTANT VARIATIONS
OF FAMILIAR BRAND NAMES FOR LOCAL AND FOREIGN COMPANIES**

FIGURE 3

ATTITUDES TOWARDS CLOSE, MODERATE, AND DISTANT VARIATIONS OF FAMILIAR BRAND NAMES WHEN NO PRE-EXISTING ATTITUDES ARE PRESENT

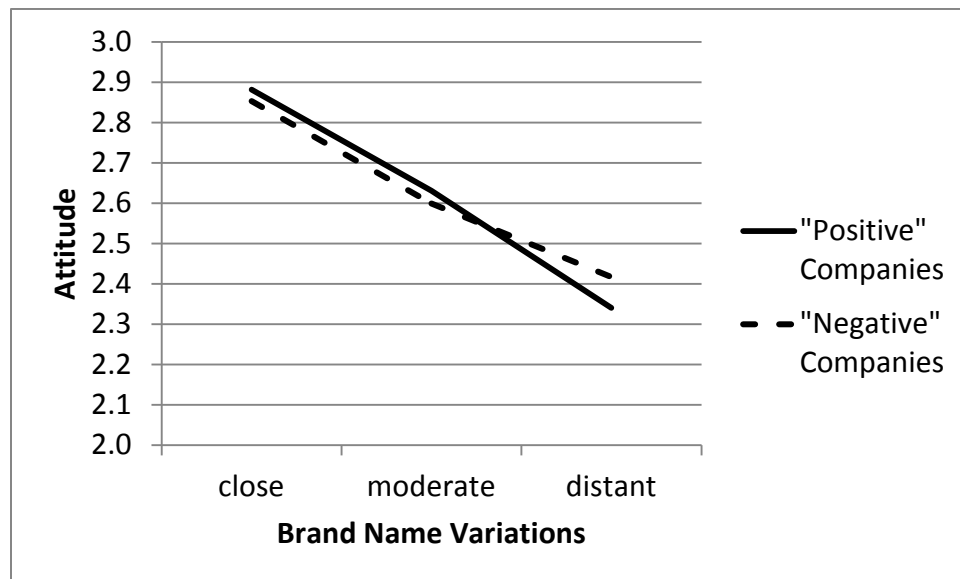


FIGURE 4
ATTITUDES TOWARDS CLOSE, MODERATE, AND DISTANT VARIATIONS
OF FAMILIAR BRAND NAMES WHEN FAMILIARITY
MANIPULATION IS ELIMINATED

