

Prior research has identified several factors that influence brand extension evaluations. Extending this research, the authors suggest that external, situational factors can have an important influence on brand extension evaluations. This research focuses on mating mind-sets (i.e., thinking about a mate), which consumers commonly experience. Specifically, the authors propose that mating mind-sets triggered by the external situation can influence brand extension evaluations, particularly for men. Mating mind-sets induce male consumers (but not female consumers) to engage in relational processing, increasing fit perceptions and evaluations for moderately dissimilar brand extensions. These differences are more likely to emerge when a short-term mating mind-set is primed (vs. a long-term mating mind-set). Furthermore, using prestige brands (vs. functional brands) reduces the gap between men and women. In addition, subbrand architecture (vs. direct brand architecture) boosts the evaluations of female consumers but decreases those of male consumers. The authors find that the effects of mating mind-sets on brand extension evaluation are driven by male consumers' need to express creativity.

Keywords: brand extensions, mating, mind-set, gender, creativity

The Influence of Mating Mind-Sets on Brand Extension Evaluation

Brand extensions are an extremely popular way to launch new products. Almost 82% of new products introduced each year are brand extensions (Simms 2005). This is not surprising given that brands can serve as signals of quality to consumers (Erdem and Swait 1998), communicate unique symbolic attributes (Johar, Sengupta, and Aaker 2005), and reduce risks for both consumers and firms. Some recent examples of brand extensions include Apple iPhone, Gillette shampoo, Iams pet insurance, and Coppertone sunglasses. Academic research on consumer response to brand extensions has made significant contributions to understanding of successful brand extension strategies. The most important factor in brand extension success emerging from this literature is the degree of brand extension fit with the

parent brand. If consumers perceive a connection between the parent brand and the brand extension, perhaps by belonging to a similar product category or sharing an important attribute, they will evaluate the brand extensions more favorably (Aaker and Keller 1990; Broniarczyk and Alba 1994). For example, a consumer poll of actual brand extensions launched in 2007 shows that PetSmart PetsHotel and Disney Fairy Tale wedding gowns were rated among the best extensions, whereas Humane Society dog lovers wine club and Trump steak were rated among the worst extensions (Hein 2007). Favorable extension responses not only increase trial but also positively affect the parent brand (Gürhan-Canli and Maheswaran 1998; Swaminathan, Fox, and Reddy 2001).

What determines brand extension fit? The prevailing explanation indicates four factors that are pivotal in determining perceptions of brand extension fit and, consequently, brand extension evaluations. First, consumers consider the nature of the parent brand, such that prestige brands (e.g., Rolex) appear to have an advantage over functional brands (e.g., Timex) in launching distant extensions (e.g., neckties and scarves; Hagtvædt and Patrick 2009; Park, Milberg, and Lawson 1991). Similarly, high-quality

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brands have an advantage over low-quality brands (Aaker and Keller 1990). Second, the nature of the brand extension also matters. Similar extensions tend to be favored over dissimilar extensions (Aaker and Keller 1990). Furthermore, dissimilar extensions launched with a subbrand name are evaluated more favorably than those launched with a direct brand name (Kirmani, Sood, and Bridges 1999; Milberg, Park, and McCarthy 1997). Third, consumer characteristics also play an important role. Holistic thinkers are more accepting of dissimilar brand extensions than analytic thinkers (Monga and John 2007, 2010). In addition, consumers in a positive mood evaluate brand extension fit differently than those in a negative mood (Barone, Miniard, and Romeo 2000). Fourth, the nature of the marketing program matters. A dissimilar brand extension advertised many times is received more favorably than one advertised a few times (Lane 2000). Even from a manager's vantage point, these factors are considered the key determinants of brand extension fit (Volckner and Sattler 2006).

Surprisingly, existing research seems to have ignored external, situational elements that come into play while consumers are evaluating brand extensions. Brand extensions are not launched in a vacuum; when consumers evaluate brand extensions, they do so in the context of many situational factors. For example, recent research in consumer behavior shows that transient mind-sets induced by a situation can affect how consumers process information (Dhar, Huber, and Khan 2007). This suggests the interesting possibility that consumers may react differently to the same brand extension depending on how the external situation encourages them to think. In this article, we focus on a new type of mind-set—the mating mind-set, which has received little attention in marketing. Situations can trigger mating mind-sets quite frequently among consumers. For example, the presence of desirable people of the opposite sex in person, online, or on television can activate thoughts about mating. Similarly, dating or even browsing a dating website could induce mating mind-sets. Indeed, a survey reveals that adults think about mating often (Jones and Barlow 1990). Specifically, young men and women report that their external situation induces them to think about mating many times a day. Given that mating mind-sets are experienced so commonly, it becomes imperative that marketing researchers examine their influence. Our research is the first to introduce mating mind-sets and an evolutionary perspective into the branding literature. The evolutionary perspective provides novel insights and, by doing so, is likely to stimulate new directions for research in branding.

We suggest that people with a mating mind-set process information differently from those in a nonmating mind-set (Griskevicius, Cialdini, and Kenrick 2006; Griskevicius et al. 2006). We propose that these differences are likely to affect brand extension fit perceptions and evaluations. In a series of four studies, we identify factors that moderate the effect of mating mind-sets and demonstrate the underlying process mechanism. In Study 1, mating mind-sets induce male consumers (but not female consumers) to engage in relational processing, increasing brand extension fit perceptions and evaluations. These effects dissipate when a long-term mating mind-set is primed. In Study 2, in a mating mind-set, brand extension responses are more favorable for male consumers than for female consumers for a functional

brand. However, for a prestige brand, the brand extension responses of female consumers rise to the level of male consumers, in effect closing the gap between male and female consumers. In Study 3, in a mating mind-set, subbrand architecture (vs. direct brand architecture) heightens brand extension responses of female consumers but diminishes those of male consumers. Finally, in Study 4, in a mating mind-set, male consumers give more favorable brand extension responses than female consumers when goal satiation is low but not when goal satiation is high. Our findings contribute to a better understanding of brand extension evaluations by showing that mating mind-sets triggered by the external situation play a focal role in determining brand extension responses. Our studies identify multiple boundary conditions that add to our understanding of mating mind-sets. By doing so, we contribute to an emerging body of research that calls for a better understanding of how consumers evaluate brand extensions in realistic marketplace conditions (Klink and Smith 2001). Importantly, our studies suggest ways managers may be able to leverage mating mind-sets to elicit favorable extension responses from consumers.

CONCEPTUAL BACKGROUND

Mating Mind-Sets

Mating is an enduring concern for all humans. More than 90% of all people in all societies marry at some point (Buss and Schmitt 1993). Indeed, people are not only involved in long-term mating relationships but also in short-term ones, such as one-night stands. Estimates of adultery among American married couples range from 26% to 70% for women and 33% to 75% for men (Buss and Schmitt 1993). Situations can trigger mating-related thoughts often among adults regardless of whether they are in relationships. For example, a survey reveals that young adults are stimulated by their external situation to think about mating many times a day (Jones and Barlow 1990). This is not surprising because a wide variety of objects in the external environment encourage people to think about mating, such as attractive people of the opposite sex being present in person, on television, or online. Furthermore, going on a date or being in a short- or long-term relationship can prompt thoughts about mating.

Recently, research in psychology has revealed that people in a mating mind-set show boosts in creativity (Griskevicius, Cialdini, and Kenrick 2006). In one study, Griskevicius, Cialdini, and Kenrick (2006) induced a mating mind-set by showing participants pictures of attractive people of the opposite sex and asked them to write stories about a series of ambiguous pictures. Participants in a mating mind-set generated stories that were more creative, imaginative, and original than those in a nonmating mind-set. In another study, the researchers induced a mating mind-set by asking participants to write stories about dating scenarios. Again, participants in a mating mind-set performed better on a creativity task that required them to relate remote concepts and ideas. More important, this heightened creativity was not related to differences in expended effort or to changes in mood and arousal. Griskevicius, Cialdini, and Kenrick (2006) suggest that mating mind-sets allow consumers to relate remote concepts and ideas. One possibility is that mating mind-sets boost the need to express creativity.

The other possibility is that mating mind-sets increase the ability to be creative by activating remote links.

Why does a mating mind-set trigger boosts in creativity? Several researchers have suggested that mental traits such as creativity increase a person's ability to attract a mate (Kanazawa 2000). Indeed, creativity can be a signal of good genes to a potential mate (Haselton and Miller 2006). Relatedly, Li et al. (2002) find that both men and women value creativity in a mate. Consequently, men and women express their creativity when selecting a mate. However, the expression of creativity varies with whether the relationship is *long-term* (e.g., marriage) or *short-term* (e.g., a one-night stand) (Griskevicius, Cialdini, and Kenrick 2006). In short-term relationships, men engage in creative displays, whereas women do not. This is because in a short-term relationship, women must invest significantly if a child is conceived. In contrast, men would not be expected to contribute to raising the child. Consequently, women tend to be selective in their mate choice (Kenrick et al. 1990), and it is the man who engages in creative displays to impress the woman. However, the difference between genders in the expression of creativity disappears when they consider long-term relationships (e.g., marriage). In this context, both men and women are expected to invest significantly if a child is conceived. Consequently, both men and women are selective in their mate choice (Kenrick et al. 1990), and both genders must impress the opposite sex through creative displays. Buss and Barnes (1986) find that creativity is perceived as a desirable characteristic for both men and women when considering a long-term, stable relationship. Consistent with this reasoning, Griskevicius, Cialdini, and Kenrick (2006) find that men are creative regardless of whether the mating prime required participants to think about short-term or long-term relationships, but women are creative only when the mating prime requires them to think about long-term relationships.

In summary, extensive research in psychology (Gangestad et al. 2007; Griskevicius, Cialdini, and Kenrick 2006; Griskevicius et al. 2006) suggests that mating primes can enhance the need to express creativity, and such expressions vary as a function of gender, particularly when people focus on short-term relationships. In this article, we primarily focus on short-term mating primes for several reasons. First, short-term primes cover a variety of situations—such as meeting someone attractive, seeing pictures of someone attractive online, and going on a date—that realistically trigger consumers to think about mating. As we mentioned previously, consumers are urged by the external situation to think about mating several times a day. Second, gender differences in short-term primes reported previously suggest the possibility that gender differences in brand extension evaluations might emerge. If so, gender, being an easily measurable consumer characteristic, emerges as a potential segmentation variable for managers.

Mating Mind-Sets and Brand Extension Evaluation

Perceptions of brand extension fit rely on consumers' ability to perceive connections between the parent brand and the extension product category (Aaker and Keller 1990; Broniarczyk and Alba 1994). Research indicates that consumers often judge brand extension fit on the basis of product class similarity (e.g., Is the extension product category

similar to the products currently marketed by the parent brand?) and attribute linkage (e.g., Does the parent brand have an attribute that would be useful in the extension context?). For example, when exposed to a new brand extension such as Coppertone sunglasses, consumers may try to determine whether there is a link between the parent brand Coppertone and sunglasses (e.g., UV protection). If they are able to uncover a link, they evaluate the brand extension favorably. However, if they cannot perceive a link, they evaluate the brand extension negatively.

Mating mind-sets may influence how brand extensions are evaluated. Previously, we mentioned that mating mind-sets boost creativity expression among men but not women. Creativity entails attending freely to relationships between items and an ability to detect higher-order abstractions (Zhu and Meyers-Levy 2007). Because mating mind-sets boost creativity (Griskevicius, Cialdini, and Kenrick 2006), they are likely to enhance perceptions of brand extension fit. Specifically, male consumers in a mating mind-set would find novel and creative ways to connect the brand and the extension. For example, when exposed to a moderately dissimilar brand extension (e.g., Kodak filing cabinet), male consumers in a mating mind-set might be able to uncover connections (e.g., using the filing cabinet to store pictures), even though there does not appear to be any similarity between the parent brand (Kodak) and the extension category (filing cabinet). In contrast, female consumers would not be expected to show any heightened creativity in response to a short-term mating prime, and thus a mating prime would not have any effect on female consumers' brand extension evaluations (Griskevicius, Cialdini, and Kenrick 2006). Similarly, no effects are anticipated for male and female consumers in a nonmating mind-set. Stated formally,

H_1 : In a mating mind-set, male consumers report greater fit perceptions and more favorable brand extension evaluations than female consumers. In a nonmating mind-set, no differences emerge between male and female consumers.

STUDY 1: EFFECTS OF MATING MIND-SETS

Sample and Design

We designed Study 1 to test H_1 . Three hundred seventy-one business students participated in the study, which consists of a 2 (mind-set: mating, nonmating) \times 2 (gender: male, female) between-subjects design. We conducted two separate studies with different brand replicates (Kodak vs. McDonald's), but the results are reported together for brevity.

Mind-Set Manipulation

We adapted the mind-set task from Griskevicius, Cialdini, and Kenrick (2006), in which participants read a scenario and wrote about it. Participants in the mating (vs. nonmating) mind-set condition were asked to imagine meeting someone desirable and spending a wonderful day and having dinner with this person (vs. imagine getting ready to go to a concert with a same-sex friend). A pretest confirmed that participants in the mating condition reported feeling more romantic (seven-point scale anchored by 1 = "not at all romantic" and 7 = "extremely romantic") than those in the nonmating condition (3.57 vs. 1.87; $F(1, 33) = 29.3, p < .01$). Furthermore, participants reported similar levels of involvement in the mating and nonmating conditions (4.56

vs. 4.32, $p > .1$) and among men and women (4.35 vs. 4.53; $p > .1$; scale anchored at 1 = “paying very little attention/concentrating very little” and 7 = “paying a lot of attention/concentrating a lot”; $n = 42$). Importantly, both male and female respondents were thinking of the same kind of short-term mating relationship upon exposure to the writing task. A second pretest showed that both genders responded similarly on an index of items anchored at mature–early stage, committed–uncommitted, and trustworthiness–untrustworthiness of the relationship (5.24 vs. 5.15, $F(1, 20) = .02$; $p > .1$).

Stimuli

We selected Kodak and McDonald’s as suitable parent brands on the basis of pretests showing favorable brand attitudes ($M_{\text{Kodak}} = 5.5$, $M_{\text{McDonald’s}} = 4.1$; scale anchored at 1 = “poor” and 7 = “excellent”) and a high degree of brand familiarity ($M_{\text{Kodak}} = 3.14$, $M_{\text{McDonald’s}} = 3.62$; scale anchored at 1 = “not at all familiar” and 4 = “extremely familiar”). We selected Kodak filing cabinet and McDonald’s chocolate bar as suitable brand extensions on the basis of a pretest ($M_{\text{Kodak}} = 2.80$, $M_{\text{McDonald’s}} = 3.5$; scale anchored at 1 = “inconsistent with brand” and 7 = “consistent with brand”; Monga and John 2007).

Procedure and Measures

Participants were informed that they would be asked to give their opinions about some new products. Participants first indicated their opinion of the parent brand, along with several other filler brands, on a seven-point scale (1 = “poor,” and 7 = “excellent”) before being exposed to the mind-set manipulation. Next, participants were shown the brand extension and asked to evaluate it on two seven-point scales (1 = “poor,” and 7 = “excellent”; 1 = “unfavorable,” and 7 = “favorable”) and in an open-ended question (“Even though you have never tried this product, what went through your mind when you were deciding if it would be a good product or a bad product?”). No further information about the brand extension was provided, similar to many situations in which consumers are made aware of new products from sources providing little information, such as billboards, grocery store ad sheets, and mystery advertisements announcing new products. Then, they evaluated brand extension fit on seven-point scales (1 = “inconsistent with brand,” and 7 = “consistent with brand”; 1 = “doesn’t fit with brand,” and 7 = “fits with brand”), consistent with scales used in prior brand extension research (e.g., Loken and John 1993). Participants also rated to what extent they felt positive arousal and mood (energetic, excited, passionate, happy, upbeat, and joyful) and negative arousal (upset, tense, and nervous) on five-point scales to rule out the possibility that arousal and mood affect our results (Griskevicius, Cialdini, and Kenrick 2006). Finally, respondents answered demographic questions.

Results

Brand extension fit perceptions. We analyzed all dependent variables using a 2 (mind-set: mating, nonmating) \times 2 (gender: male, female) between-subjects analysis of variance (ANOVA). A mind-set \times gender interaction emerged (Kodak: $F(1, 139) = 4.34$, $p < .05$; McDonald’s: $F(1, 224) = 4.12$, $p < .05$). (for means and standard deviations, see Table 1). As hypothesized, in a mating mind-set, male consumers perceived greater brand extension fit than female consumers

(Kodak: $F(1, 139) = 5.18$, $p < .05$; McDonald’s: $F(1, 224) = 4.85$, $p < .05$). In contrast, no gender differences emerged for participants in a nonmating mind-set ($ps > .1$).

Brand extension evaluation. A mind-set \times gender interaction emerged (Kodak: $F(1, 139) = 3.79$, $p = .05$; McDonald’s: $F(1, 224) = 3.29$, $p < .05$). (for means and standard deviations, see Table 1 and Figure 1). As hypothesized, in a mating mind-set, male consumers provided more favorable brand extension evaluations than did female consumers (Kodak: $F(1, 139) = 4.74$, $p < .05$; McDonald’s: $F(1, 224) = 4.23$, $p < .05$). In contrast, no gender differences emerged for participants in a nonmating mind-set ($ps > .1$).

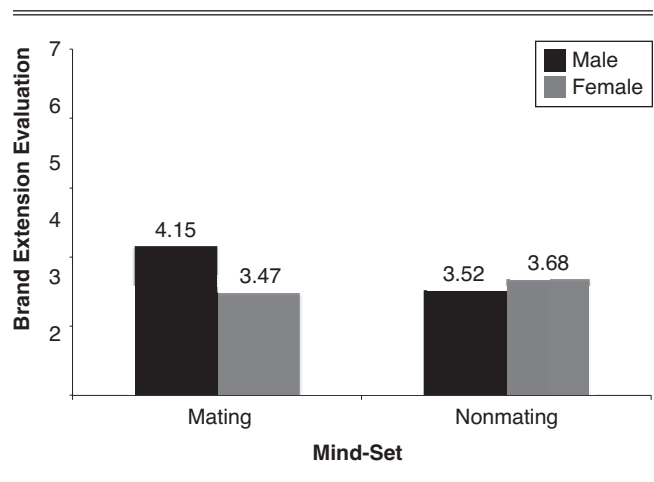
Relational thoughts. Independent coders coded thoughts about the brand extension to tap into the process (interrater

Table 1
STUDY 1: MEANS AND STANDARD DEVIATIONS

Measure	Mating		Nonmating	
	Male	Female	Male	Female
<i>Extension Evaluation</i>				
Kodak	4.15 (1.35)	3.47 (1.28)	3.52 (1.18)	3.68 (1.29)
McDonald’s	3.35 (1.45)	2.69 (1.47)	2.84 (1.39)	3.02 (1.76)
<i>Extension Fit</i>				
Kodak	4.32 (1.53)	3.47 (1.62)	2.90 (1.16)	3.14 (1.72)
McDonald’s	2.82 (1.79)	2.09 (1.42)	1.98 (1.29)	2.38 (1.59)
<i>Relational Thoughts</i>				
Kodak	73.50%	43.80%	41.90%	47.50%
McDonald’s	36.40%	18.80%	18.20%	14.30%
<i>Total Thoughts</i>				
Kodak	4.52	4.23	4.00	4.05
McDonald’s	4.24	3.94	4.20	4.07
Positive mood and arousal	2.71 (.87)	2.43 (1.05)	2.73 (1.04)	2.49 (.93)
Negative arousal	2.01 (.82)	1.85 (.88)	2.02 (.89)	1.91 (.90)

Notes: Standard deviations are in parentheses.

Figure 1
STUDY 1: MATING MIND-SETS CAN BOOST KODAK BRAND EXTENSION EVALUATIONS FOR MALES BUT NOT FEMALES



reliability = 92.7%). Using a coding scheme developed by Ahluwalia (2008), they coded thoughts as relational if participants reported that there was a connection between the parent brand and the extension (e.g., Kodak filing cabinet could be used to store pictures; Kodak makes reliable products, so the filing cabinet would be reliable as well; McDonald's is already into foods and this would be another kind; McDonald's consumers would eat the chocolate as dessert). They coded all other thoughts as nonrelational. (for percentage of relational thoughts, see Table 1). Consistent with our expectations, in the mating mind-set, chi-square tests revealed that male consumers generated a higher percentage of relational thoughts than female consumers (Kodak: Pearson $\chi^2(1) = 6.04, p < .05$; McDonald's: Pearson $\chi^2(1) = 3.14, p = .07$). There were no differences for participants in a nonmating mind-set ($ps > .1$). No differences emerged in the total number of thoughts generated in response to the brand extensions ($ps > .1$; for means, see Table 1).

Mediation analysis. We conducted mediation analysis to test whether relational thoughts mediate the effect of gender and mind-set on brand extension evaluation. We expected mediation to emerge only for the mating mind-set and not for the nonmating mind-set (for results, see the Appendix). As anticipated, for both brands, relational thoughts mediate the effect of gender on brand extension evaluation for the mating mind-set but not the nonmating mind-set.

Mood and arousal. To rule out the possibility that differences in mood or positive or negative arousal explain the differences observed between mating and nonmating mind-sets, we compared the experimental conditions on these measures. Mind-set and gender did not induce any differences ($ps > .1$; for means, see Table 1).

Discussion

Our results demonstrate that in a mating mind-set, male consumers perceive greater fit and evaluate a brand extension more favorably than female consumers. However, in a nonmating mind-set, no differences emerge between male and female consumers. An analysis of relational thoughts reveals that male consumers in the mating mind-set are able to think more relationally (connecting the parent brand to the extension) than female consumers, indicating that the accessibility of relational thoughts may be driving the differences in brand extension responses. Results of a mediation analysis show that relational thoughts mediate the effect of gender on brand extension evaluation for the mating mind-set but not for the nonmating mind-set. Moreover, our results are not driven by mood, arousal, or total thoughts (involvement).

As a follow-up, we explored a boundary condition for the effect of mating mind-sets. We expected that no gender differences would emerge when a long-term mating mind-set is primed, because both genders would engage in creativity, thus eliminating differences in brand extension responses. To test this, 59 participants responded to questions about McDonald's chocolate bar in a 2 (mind-set: long-term mating, nonmating) \times 2 (gender: male, female) between-subjects design. Measures and procedure were similar to Study 1. We primed long-term mating mind-set (Griskevicius, Cialdini, and Kenrick 2006) by asking participants to imagine and write about the following scenario: "Imagine meeting someone desirable and spending a wonderful day and a din-

ner with this person. Imagine that you have been dating for a while and you've met each other's friends. Your friends like and approve of this person." This manipulation signifies trustworthiness and commitment, which are typical of a long-term relationship (Griskevicius, Cialdini, and Kenrick 2006). As expected, a main effect of mind-set emerged for brand extension evaluation ($F(1, 55) = 7.07, p < .05$) and fit perceptions ($F(1, 55) = 6.1, p < .05$), with participants reporting more favorable evaluations and fit perceptions in the long-term mating than the nonmating mind-set. Importantly, for brand extension fit perceptions, no gender differences emerged in the nonmating ($M_{\text{female}} = 2.8, M_{\text{male}} = 2.60$) and long-term mating ($M_{\text{female}} = 4.00, M_{\text{male}} = 4.07$) mind-set conditions. Similarly, for brand extension evaluation, no gender differences emerged in the nonmating ($M_{\text{female}} = 2.94, M_{\text{male}} = 2.87$) and long-term mating ($M_{\text{female}} = 4.27, M_{\text{male}} = 4.07$) mind-set conditions. As expected, both male and female consumers boost their brand extension fit perceptions and evaluations in a long-term mating mind-set, thus eliminating gender differences. By showing conditions under which mating mind-sets eliminate gender differences in brand extension response, we provide an important boundary condition. In the remaining sections of the article, we predominantly focus on short-term mating mind-sets.

STUDY 2: PRESTIGE VERSUS FUNCTIONAL BRANDS

In Study 2, we examine how consumers respond to brand extensions from prestige versus functional parent brands (Park, Milberg, and Lawson 1991). Although brands can be positioned in several ways, one of the most basic distinctions is the prestige versus functional brand concept (Park, Milberg, and Lawson 1991). Prior research has shown that prestige brand concepts are more abstract and hedonic than functional brand concepts, allowing prestige brands to accommodate a wider range of products that share few physical features (Hagtvedt and Patrick 2009; Monga and John 2010; Park, Milberg, and Lawson 1991). A prestige brand such as Rolex can be successful launching distant extensions such as scarves and neckties, because consumers would be able to use the prestige concept to connect the brand and the extension. In contrast, a functional brand such as Timex, with associations tied to specific attributes and a product category, would not be successful at launching scarves and neckties (Hagtvedt and Patrick 2009; Park, Milberg, and Lawson 1991). For functional brands, consumers have more difficulty finding a connection or basis of fit for extensions in dissimilar product categories.

If the accessibility of relational thoughts is responsible for the observed differences in brand extension response between male and female consumers, the degree of differences in brand extension response should vary for functional versus prestige brands. For the functional brand, male consumers in a mating mind-set, due to boosts in creativity, will be able to find novel ways to link the parent brand and the extension. Thus, fit perceptions and consequently extension evaluations will be more favorable for male consumers than for female consumers. We would expect no gender differences to emerge for extensions of prestige brands, in which relational thoughts are accessible to both male and female consumers, allowing both groups of consumers to connect the brand and the extension. Thus, for consumers in a mating mind-set:

H₂: For the functional brand, male consumers report greater fit perceptions and more favorable brand extension evaluations than female consumers. For the prestige brand, differences in fit perceptions and brand extension evaluations between male consumers and female consumers diminish.

Sample, Design, and Procedure

We designed Study 2 to test H₂. In addition, we wanted to determine whether mating mind-sets differ in terms of need for cognitive closure: It might be speculated that mating mind-sets spur male consumers into finding closure quickly by resolving the inconsistency between the parent brand and extension. One hundred sixty-eight business students participated in a study with a 2 (brand: functional, prestige) × 2 (gender: male, female) × 2 (mind-set: mating, nonmating) between-subjects design. Experimental procedure, measures, and mind-set manipulation were identical to those used in Study 1 with one exception: We measured need for closure using Webster and Kruglanski's (1994) scale.

Stimuli

First, we sought brands that competed in the same product category but differed in consumer perceptions of prestige (Monga and John 2010). Participants perceived BMW as more prestigious than Honda ($M_{\text{BMW}} = 6.53$, $M_{\text{Honda}} = 3.21$; $p < .001$; $n = 36$). Second, we sought a prestige and functional brand with equally favorable brand attitudes and similar levels of brand familiarity. Results indicated that our subject population had equally favorable attitudes toward BMW and Honda ($M_{\text{BMW}} = 6.35$, $M_{\text{Honda}} = 5.95$; $p > .1$; $n = 36$; seven-point scale, where 1 = "poor" and 7 = "excellent") and similar levels of brand familiarity ($M_{\text{BMW}} = 4.00$, $M_{\text{Honda}} = 3.68$; $p > .1$; $n = 36$; five-point scale, where 1 = "not at all familiar" and 5 = "extremely familiar"). We selected sunglasses as the extension category. In pretests, participants perceived sunglasses as dissimilar from cars ($M = 1.8$; 1 = "not at all similar," and 7 = "extremely similar"; $n = 20$). Sunglasses were equally associated with prestige and functional brands, indicated by agreement with the following statements: "When I think of sunglasses, I can easily remember examples of expensive, luxury brands," and "When I think of sunglasses, I can easily remember examples of moderately priced, functional brands" ($M_{\text{prestige}} = 6.1$, $M_{\text{functional}} = 5.50$; $p > .10$; $n = 20$).

Results

We used a 2 (brand: functional, prestige) × 2 (gender: male, female) × 2 (mind-set: mating, nonmating) between-subjects ANOVA in our analyses. As a manipulation check, we found that participants in the mating mind-set reported feeling more romantic than those in the nonmating mind-set condition ($M_{\text{mating}} = 4.74$, $M_{\text{nonmating}} = 3.73$; $F(1, 160) = 14.42$; $p < .001$).

Brand extension fit perceptions. Our analysis revealed a three-way interaction ($F(1, 160) = 3.78$, $p = .05$) (for means and standard deviations, see Table 2). As we expected, in a mating mind-set, for the functional brand, male consumers provided greater fit perceptions than female consumers ($F(1, 160) = 13.68$, $p < .001$). However, in a mating mind-set, for the prestige brand, no differences emerged between the male and female consumers ($p > .1$). In the nonmating

Table 2
STUDY 2: MEANS AND STANDARD DEVIATIONS

Measure	Mating		Nonmating	
	Male	Female	Male	Female
<i>Extension Evaluation</i>				
Functional (Honda)	4.00 (.77)	2.75 (.86)	2.74 (1.45)	2.70 (1.34)
Prestige (BMW)	4.48 (1.61)	5.09 (1.31)	4.38 (1.53)	4.59 (1.22)
<i>Extension Fit</i>				
Functional (Honda)	3.92 (1.19)	2.06 (1.48)	2.30 (1.64)	1.90 (1.21)
Prestige (BMW)	3.29 (1.10)	3.91 (1.82)	3.21 (1.79)	3.47 (2.12)
<i>Relational Thoughts</i>				
Functional (Honda)	68.0%	37.5%	30.4%	40.0%
Prestige (BMW)	61.9%	54.5%	62.5%	58.8%
<i>Total Thoughts</i>				
Functional (Honda)	3.68	4.06	3.86	3.85
Prestige (BMW)	3.80	4.04	3.91	4.00
Positive mood and arousal	2.59 (.87)	2.69 (.85)	2.82 (.81)	2.51 (.85)
Negative arousal	1.74 (0.82)	1.66 (.62)	1.57 (.73)	1.72 (.75)

Notes: Standard deviations are in parentheses.

mind-set, no gender differences emerged for the functional and the prestige brands ($ps > .1$).

Brand extension evaluation. Our analysis revealed a three-way interaction ($F(1, 160) = 3.94$, $p < .05$) (for means and standard deviations, see Table 2). As we expected, in a mating mind-set, for the functional brand, male consumers provided more favorable brand extension evaluations than did female consumers ($F(1, 160) = 9.01$, $p < .01$). However, in a mating mind-set for the prestige brand, no differences emerged between male and female consumers ($p > .1$). In the nonmating mind-set, no gender differences emerged for the functional and the prestige brands ($ps > .1$).

Relational thoughts. Consistent with our expectations, for the functional brand in the mating condition, male consumers generated a higher percentage of relational thoughts than did female consumers (Pearson $\chi^2(1) = 3.68$, $p = .055$). In addition, no differences emerged for the functional brand in the nonmating condition for the prestige brand in the mating and nonmating conditions (all $ps > .1$) (for percentage of relational thoughts, see Table 2). Moreover, no differences emerged in the total number of thoughts generated in response to the brand extensions ($ps > .1$; for means, see Table 2).

We anticipated that relational thoughts would mediate the effects of our three-way interaction on brand extension evaluation (for results, see the Appendix). Our analysis showed evidence for partial mediation.

Supplementary analysis. No differences emerged for mood and arousal. ($ps > .1$; for means, see Table 2). To rule out the possibility that mating mind-sets could spur male consumers into finding closure quickly, we compared the experimental conditions on need for closure. Only a main effect of gender emerged ($F(1, 160) = 4.49$, $p < .05$). We found female consumers to have higher scores for need for closure than male consumers ($M_{\text{female}} = 5.01$, $M_{\text{male}} = 4.73$, $p < .05$). Because this pattern is not consistent with our

speculation, it shows that male consumers are not driven to find closure more than female consumers.

Discussion

Our results reveal that for a functional brand, male consumers in a mating mind-set report greater fit perceptions and more favorable brand extension evaluations than female consumers. However, for the prestige brand, brand extension responses of female consumers in a mating mind-set rise to the level of male consumers, in effect closing the gap between male and female consumers. An analysis of relational thoughts reveals that in a mating mind-set, male consumers generate more relational thoughts than female consumers for the functional brand. However, in the case of the prestige brand, relational thoughts of female consumers rise to the level of male consumers, reducing differences between male and female consumers. We also find that relational thoughts partially mediate the effect of our three-way interaction on brand extension evaluation.

Our findings support the view that male consumers in a mating mind-set respond more favorably to a dissimilar brand extension than female consumers due to differences in relational thinking. In the case of a functional brand, male consumers engage in relational thinking more than female consumers, leading to more favorable responses to brand extensions among male consumers than female consumers. However, in the case of the prestige brand, in which abstract ways to relate the brand and the extension are equally accessible to both genders, differences in brand extension response between male and female consumers disappear. Thus, choosing to launch brand extensions under a prestige brand rather than a functional brand may be an effective strategy to boost brand extension responses of female consumers in a mating mind-set.

STUDY 3: DIRECT VERSUS SUBBRAND ARCHITECTURE

In Study 3, we explore another boundary condition, brand architecture. Several options exist for naming brand extensions, and researchers have examined two types of brand architectures in particular: direct brands (e.g., Kodak filing cabinet) and subbrands (e.g., Excer filing cabinet by Kodak). Firms use direct brands to indicate a close relationship between an extension and parent brand, whereas subbrands indicate a more distant relationship between an extension and parent brand (Milberg, Park, and McCarthy 1997). Subbrands can be especially useful for dissimilar brand extensions, increasing brand extension evaluations and decreasing risks for brand dilution (Milberg, Park, and McCarthy 1997). Prior research has shown that subbrands allow consumers to transfer positive affect and beliefs associated with the parent brand (Kodak) to the new product while differentiating this product from the other products under the brand. Specifically, subbrands help to reduce inconsistencies between the parent brand and its extension by creating distance between the extension and the parent brand (Milberg, Park, and McCarthy 1997; Kirmani, Sood, and Bridges 1999). For example, for Kodak filing cabinet, consumers may have negative inferences about whether filing cabinets fit with Kodak's image or competency. However, for Excer filing cabinet by Kodak (the subbrand name), consumers may no longer think that Kodak's image

or competency is relevant (Milberg, Park, and McCarthy 1997). Thus, there is a less need to relate the brand and the extension, leading to more favorable brand extension evaluations for subbrands.

We predict that brand extension responses in a mating mind-set will be perceived differently depending on the nature of the brand architecture employed. For the direct brand, male consumers in a mating mind-set would provide more favorable responses than would female consumers, due to increases in relational thinking (as in our previous studies). However, we predict that for the subbrand, male and female consumers will perceive a more distant relationship between the brand and the extension. Thus, there is a less need to relate the brand, and the extension and differences between male and female consumers would be eliminated. Thus, we predict the following for consumers in a mating mind-set:

H₃: For the direct brand, male consumers report more favorable brand extension responses than female consumers. For the subbrand, male and female consumers do not vary in their brand extension responses.

Sample, Design, and Procedure

For Study 3, it was necessary to identify a way to induce mating mind-sets in a realistic consumer setting. Three hundred seventeen students participated in a study with a 2 (mind-set: mating, nonmating) × 2 (gender: male, female) × 2 (brand name: direct, subbrand) between-subjects design.

Stimuli

Our stimuli consisted of Kodak filing cabinet, which was presented in an advertisement format. We manipulated brand architecture by using the brand name "Kodak filing cabinet" for the direct brand and "Excer filing cabinet by Kodak" for the subbrand (Milberg, Park, and McCarthy 1997). We induced a mating mind-set in participants using an advertisement with the headline "Imagine meeting someone desirable on the last day of your vacation," followed by an image of a couple on a beach. At the foot of the advertisement was the tagline "Introducing Kodak filing cabinet [Excer filing cabinet by Kodak]. Come check it out at stores nationwide." Participants in the nonmating control condition saw the same advertisement, excluding the image and headline, with a tagline reading, "Introducing Kodak filing cabinet [Excer filing cabinet by Kodak]. Come check it out at stores nationwide." In a pretest, participants exposed to the mating advertisement reported feeling more romantic than participants exposed to the nonmating control advertisement ($M_{\text{mating}} = 3.73$, $M_{\text{nonmating control}} = 2.25$; $F(1, 25) = 19.11$, $p < .01$). Furthermore, as a check on the realism of the advertisement, participants rated the advertisement as being significantly reasonable and sensible and something they were likely to see in a magazine (average = 4.75, which is significantly higher than the midpoint of the seven-point scale; $p < .05$). Importantly, both male and female respondents were thinking of the same kind of short-term mating relationship upon exposure to the mating advertisement. Both groups responded similarly in terms of mature-early stage, committed-uncommitted, and trustworthiness-untrustworthiness nature of the relationship ($ps > .1$).

Results

Brand extension fit perceptions. We used a 2 (mind-set: mating, nonmating) \times 2 (gender: male, female) \times 2 (brand name: direct, subbrand) between-subjects ANOVA in our analyses.¹ Our analysis revealed a three-way mind-set \times gender \times brand name interaction ($F(1, 309) = 4.02, p < .05$) (for means and standard deviations, see Table 3). In the mating mind-set, for the direct brand, planned contrasts showed that male consumers perceived greater brand extension fit than female consumers ($F(1, 309) = 3.56, p < .05$). However, in a mating mind-set, for the subbrand, female consumers perceived higher brand extension fit than male consumers ($F(1, 309) = 5.17, p < .05$). Comparing responses with control groups for the subbrand, male consumers perceived lower brand extension fit in the mating subbrand condition than in the nonmating subbrand condition ($F(1, 309) = 2.45, p = .06$). In contrast, female consumers showed no difference ($p > .1$). Comparing responses with control groups for the direct brand, brand extension fit was greater for male consumers in the mating direct brand condition than in the nonmating direct brand condition ($F(1, 309) = 7.08, p < .01$). In contrast, female consumers showed no difference ($p > .1$).

Brand extension evaluation. Our analysis revealed a three-way mind-set \times gender \times brand name interaction ($F(1, 309) = 4.28, p < .05$) (for means and standard deviations, see Table 3). In the mating mind-set, for the direct brand, planned contrasts showed that male consumers provided more favorable evaluations than did female consumers ($F(1, 309) = 2.9, p < .05$). However, in a mating mind-set, for the subbrand, female consumers provided more favorable evaluations than did male consumers ($F(1, 309) = 4.25, p < .05$). Comparing responses with control groups for the subbrand, male consumers provided lower evaluations in the mating sub-brand condition than in the nonmating subbrand condition ($F(1, 309) = 3.21, p < .05$). In contrast, female consumers showed no difference ($p > .1$). Comparing responses with control groups for the direct brand, evaluations were more favorable for male consumers in the mating direct brand condition than in the nonmating direct brand condition ($F(1, 309) = 5.23, p < .05$). In contrast, female consumers showed no difference ($p > .1$).

Supplementary analysis. Thus far, we find that in a mating mind-set, brand extension responses are more favorable for male consumers than for female consumers when a direct brand is used. However, when a subbrand is used, brand extension responses are more favorable for female consumers than male consumers. One possible reason for this is that for male consumers in a mating mind-set, the perception of distance created between the parent brand and the extension by the subbrand acts in opposition to the natural inclination of male consumers in a mating mind-set to express creativity by seeking out relationships between the parent brand and the extension. We know that information that does not match with a consumer's processing style results in a decline in evaluations (Petty and Wegener 1998). For example, Monga and John (2010) show that when brand extension information is presented in a format that does not match the natural processing style of the consumer (analytic vs. holistic), brand extension evaluations decline. As a follow up, we examined possible reasons for our results. Information that matches a person's attitudes, goals, or processing style may be more effective for several reasons, including perceptions of higher message quality (Lavine and Snyder 1996), greater fluency (Lee and Aaker 2004), and greater motivation and scrutiny (DeBono and Harnish 1988). We measured all three of these factors—message quality (“I found the material in the ad to be convincing/strong,” seven-point scale; Lavine and Snyder 1996), ease/fluency of message processing (“I found the material in the ad to be easy to understand,” seven-point scale; Lee and Aaker 2004), and motivation/scrutiny (“When I was reading the ad, I was...”: 1 = “paying little attention,” and 7 = “paying a lot of attention”; Lee and Aaker 2004)—to explore whether they might be responsible for the matching effect we observed in our study. We analyzed all measures in a 2 (ad type: mating-direct brand, mating-subbrand) \times 2 (gender: male, female) between-subjects ANOVA.² We found that in a mating mind-set, a matching effect (ad type \times gender interaction) was significant only for message quality ($F(1, 226) = 5.84, p < .05$; other measures, $ps > .10$). Planned contrasts showed that for the direct brand, male consumers perceived higher message quality than did female consumers ($M_{\text{male}} = 3.82, M_{\text{female}} = 3.35; F(1, 226) = 2.63, p <$

¹Because we have a theory-based directional hypothesis, all planned contrasts in this study are one tailed.

²The degrees of freedom in this analysis are lower because we exclude the control group.

Table 3
STUDY 3: MEANS AND STANDARD DEVIATIONS

Measure	Nonmating Direct Brand		Mating Direct Brand		Mating Subbrand		Nonmating Subbrand	
	Male	Female	Male	Female	Male	Female	Male	Female
Extension evaluation	3.58 (1.12)	3.56 (.71)	4.28 (1.33)	3.90 (.97)	3.90 (1.21)	4.35 (1.25)	4.43 (.87)	4.00 (1.23)
Extension fit	3.00 (.94)	3.17 (1.62)	3.87 (1.32)	3.42 (1.20)	3.37 (1.46)	3.90 (1.27)	3.86 (.65)	3.72 (.75)
Relational thoughts	33.3%	38.9%	50.8%	35.4%	34.7%	26.4%	33.3%	24.1%
Total thoughts	3.99	4.33	3.96	4.12	4.12	4.22	4.00	3.72
Positive mood and arousal	2.87 (1.00)	2.87 (.91)	3.30 (1.32)	3.40 (1.27)	3.34 (1.41)	3.29 (1.43)	3.29 (.72)	3.00 (1.21)
Negative arousal	2.65 (1.00)	2.52 (.71)	2.77 (1.25)	2.93 (1.07)	2.51 (1.11)	2.78 (1.19)	2.69 (.64)	2.60 (.48)

Notes: Standard deviations are in parentheses.

.05). However, in a mating mind-set, for the subbrand, female consumers perceived higher message quality than did male consumers ($M_{\text{male}} = 3.36$, $M_{\text{female}} = 3.86$; $F(1, 261) = 3.23$, $p < .05$).

Mediation analysis. As a follow-up, we tested relational thoughts as a mediator of the effects of gender on brand extension evaluation. Relational thoughts mediated our effects for the direct brand condition (Sobel's statistic = 1.45, $p = .07$) but not the subbrand condition ($p > .1$). We also tested message quality as a mediator of the effects of gender and ad type on brand extension evaluation. Message quality perfectly mediates the effect of ad type and gender on extension evaluation (for results, see the Appendix).

Supplementary analysis. No differences emerged in the total number of thoughts generated in response to the brand extensions ($ps > .1$; for means, see Table 3). No differences emerged in mood or arousal ($ps > .1$; for means, see Table 3).

Discussion

In a mating mind-set, for a direct brand, male consumers provided more favorable extension evaluations and fit perceptions than did female consumers. However, in a mating mind-set, for a subbrand, female consumers provided more favorable extension evaluation and fit perceptions than male consumers. Comparisons made with a nonmating, subbrand control group reveal that brand extension responses of male consumers in the mating subbrand condition were less favorable than the nonmating control. It is possible that men in a mating mind-set have a need to express their creativity, and the subbrand (which does not need relational processing) prevents them from doing so, thereby dampening their extension evaluations. In contrast, for the female consumers, no differences emerged between the mating subbrand and the nonmating control conditions. Differences in perceptions of message quality mediated our effects. Furthermore, our findings also show that mating mind-sets may be induced in an advertising context to elicit favorable responses from consumers.

STUDY 4: GOAL SATIATION

In Study 4, we examine the process in greater depth. Mating mind-sets may affect brand extension evaluations through two different mechanisms: They could enable creativity through a cognitive activation process or by increasing the need to be creative (a motivational process). Prior research has shown that cognitive and motivational processes can be distinguished from each other by focusing on goal satiation (Chartrand et al. 2008; Fitzsimons, Chartrand, and Fitzsimons 2008). When a goal has been achieved, it decreases in strength (Chartrand et al. 2008). In contrast, cognitive activation processes tend to increase in strength because of the greater attention brought to them through achievement (Chartrand et al. 2008). For example, Chartrand et al. (2008) show support for a motivational process by demonstrating that an unconsciously held goal can affect a choice task when an intervening task does not satiate the goal, but not when the intervening task satiates the goal. Drawing on these results, we expect that if the effect of mating mind-sets is driven by a need to express creativity, brand extension responses for male consumers in a short-term mating mind-set will be more favorable when goal satiation

is low than when it is high. When goal satiation is low, there is no intervening creativity task, and brand extension responses of male consumers will be favorable (as in Studies 1–3). However, when goal satiation is high, the goal of expressing creativity will be met through an intervening creativity task, thus reducing the need to be creative while evaluating the brand extension in a subsequent task. In contrast, for female consumers in a mating mind-set who have the need to be creative, goal satiation will not affect their brand extension responses. Alternatively, if our effects are more cognitive, the effects for male consumers will magnify when goal satiation is high because of the greater salience brought to creativity. This study also clarifies the role of creativity: If our effects are driven by creativity, brand extension responses of male consumers should vary as a function of the goal satiation task. An intervening creativity task that diminishes the need to be creative in a subsequent brand extension task would confirm the role of creativity.

Sample, Design, and Procedure

One hundred thirteen students participated in a study with a 2 (goal satiation: low, high) \times 2 (gender: male, female) between-subjects design. All participants were induced in a short-term mating mind-set. Our stimuli consisted of Kodak filing cabinet. The procedure was identical to the first study, with the exception of the goal satiation task, which we inserted directly after the mating mind-set manipulation. In addition to the measures in Study 1, we assessed a manipulation check on completion of all the dependent variables in the study to ensure that our manipulation was active during the completion of the dependent variables. In addition, it is possible that the need for closure measure in Study 2 did not show any effects because it captures the trait, rather than the state. Thus, we measured need for closure by adapting some items from the need for closure scale to reflect state variables rather than trait variables (e.g., "While you were thinking about Kodak filing cabinet, to what extent were you in a hurry to decide quickly?" "While you were thinking about Kodak filing cabinet, to what extent were you trying to reach an understanding of the product quickly?" "While you were thinking about Kodak filing cabinet, to what extent were you thinking in many different ways?" [seven-point scales]).

Goal Satiation Manipulation

When the goal satiation was high, participants were asked to respond to seven problems from the remote associates test (Mednick 1962), a standard creativity task in which participants are asked to think of a word that is related to sets of three words (e.g., "skate," "cream," "water"). The correct response to this problem would be "ice" (ice skate, ice cream, and ice water). When goal satiation was low, participants were presented with the same sets of words (e.g., skate, cream, water) but only asked to read them.

Results

We used a 2 (goal satiation: low, high) \times 2 (gender: male, female) between-subjects ANOVA in our analyses. All participants were in a mating mind-set. As expected, our mind-set manipulation was equally active in all experimental conditions, and there were no differences across conditions ($p > .1$; for means and standard deviations, see Table 4).

Table 4
STUDY 4: MEANS AND STANDARD DEVIATIONS

Measure	Male Consumers Goal Satiation		Female Consumers Goal Satiation	
	Low	High	Low	High
Extension evaluation	4.18 (.90)	2.58 (1.51)	3.42 (1.31)	3.61 (1.33)
Extension fit	3.67 (1.05)	2.24 (1.39)	2.92 (1.55)	3.26 (1.75)
Romantic manipulation check	4.76	4.76	4.92	5.05
Relational thoughts	48.5%	17.6%	28.0%	34.2%
Total thoughts	3.90	3.94	4.00	4.60
Positive mood and arousal	2.82 (.84)	2.56 (.92)	2.42 (.91)	2.48 (.81)
Negative arousal	1.79 (.71)	1.66 (.76)	1.69 (.98)	1.74 (.64)

Notes: Standard deviations are in parentheses.

Brand extension fit perceptions. Our analysis revealed a goal satiation \times gender interaction ($F(1, 109) = 9.29, p < .01$) (for means and standard deviations, see Table 4). Planned contrasts showed that male consumers' fit perceptions declined when goal satiation was high compared with when it was low ($F(1, 109) = 10.54, p < .01$). In contrast, female consumers' fit perceptions did not vary across goal satiation conditions ($p > .1$). Consistent with Studies 1–3, for the low goal satiation condition, male consumers' fit perceptions were greater than those of female consumers ($F(1, 109) = 3.63, p = .06$).

Brand extension evaluation. Our analysis revealed a goal satiation \times gender interaction ($F(1, 109) = 13.24, p < .01$) (for means and standard deviations, see Table 4). Planned contrasts showed that male consumers' evaluations declined when goal satiation was high, compared with when it was low ($F(1, 109) = 18.26, p < .01$). In contrast, evaluations of female consumers did not vary across goal satiation conditions ($p > .1$). Consistent with Studies 1–3, for the low-goal-satiation condition, male consumers' evaluations were more favorable than those of females ($F(1, 109) = 5.29, p < .05$).

Relational thoughts. Consistent with our expectations, male consumers generated a lower percentage of relational thoughts when goal satiation was high than low (Pearson $\chi^2(1) = 4.52, p < .05$). No differences emerged for the female consumers ($p > .1$) (for percentage of relational thoughts, see Table 4). No differences emerged in the total number of thoughts generated in response to the brand extensions ($ps > .1$; for means, see Table 4).

Mediation analysis. We anticipated that relational thoughts would mediate the effects of our two-way interaction on brand extension evaluation (for results, see the Appendix). Our analysis showed evidence for partial mediation (Sobel's statistic = 1.61, $p = .05$).

As a supplementary analysis, we also tested for mood and arousal effects. No effects emerged ($ps > .1$).

Discussion

Our results demonstrate that in a mating mind-set, male consumers perceive greater fit and evaluate a brand extension more favorably when goal satiation is low than when it is high. However, for female consumers in a mating mind-set, the degree of goal satiation has no effect on brand extension responses. Furthermore, our results are not driven

by mood or arousal. Importantly, this study provides strong support for our process mechanism. The effects of mating mind-sets are driven by a motivational process (vs. a cognitive activation process), in which male consumers experience a greater need to be creative. The role of creativity was also confirmed: Because male consumers in a mating mind-set experienced boosts in creativity, their brand extension responses varied as a function of the goal satiation. When male consumers were given the opportunity to satiate their goal in an intervening creativity task, their need to express creativity dissipated and thus had no effects on subsequent brand extension responses. In contrast, for female consumers, for whom creativity was not activated in response to a mating mind-set, the goal satiation manipulation had no impact.

GENERAL DISCUSSION

Our findings support the view that situational factors, such as mating mind-sets, are an important determinant of brand extension fit and evaluations. Our predictions are supported in a variety of experiments employing different types of mating mind-set manipulations (e.g., writing tasks, viewing advertisements), parent brands (e.g., Kodak, McDonald's, Honda, BMW), and extension categories (e.g., filing cabinet, chocolate bar, sunglasses).

Our results also provide evidence regarding the psychological processes responsible for the effects of mating mind-sets. In Study 1, we find that male consumers in a short-term mating mind-set are better able to engage in relational thinking than female consumers. Consequently, male consumers respond more favorably to brand extensions than female consumers. Importantly, when we primed a long-term mating mind-set, the gender differences in brand extension evaluation dissipated. In Study 2, we find that in a mating mind-set, brand extension responses for a functional brand are more favorable for male consumers than for female consumers because of relational thinking among male consumers. However, in the case of a prestige brand, in which abstract ways to relate the brand and the extension are available to both male and female consumers, brand extension responses of female consumers rise to the level of male consumers, in effect closing the gap between male and female consumers. In Study 3, in a mating mind-set, sub-brand (vs. direct brand) architecture, which distances the brand from the extension, heightens brand extension responses of female consumers but diminishes those of male consumers. Perception of message quality mediates this effect. Finally, in Study 4, we demonstrate that the effect of mating mind-sets on brand extension evaluation is driven by a greater need to express creativity. Male consumers' brand extension responses (and relational thoughts) were more favorable (higher) when goal satiation was low. However, when goal satiation was high, their brand extension responses (and relational thoughts) declined. In contrast, for female consumers, goal satiation had no impact.

Conceptual Contributions

Our findings suggest that a consideration of mating mind-sets is essential to understanding how consumers respond to brand extensions. Prior research has identified many factors that influence how brand extensions are evaluated (Aaker and Keller 1990). Our results demonstrate that external situations

that trigger mating mind-sets are important in determining brand extension evaluations. To our knowledge, this research is the first to introduce evolutionary theories to the area of branding. We concur with Griskevicius et al. (2009), who suggest that both evolutionary approaches (which involve ultimate explanations for behavior) and traditional approaches (which involve proximate explanations) are needed for understanding any consumer phenomenon.

Our research adds to a body of work that calls for a better understanding of how consumers evaluate brands extensions in everyday situations (Klink and Smith 2001). Prior research on branding has raised concerns about the generalizability of brand extension research, suggesting that a lack of generalizability curbs the ability of academics and managers to apply various findings from brand extension research (Volckner and Sattler 2006). Because consumers often experience mating mind-sets in their daily lives, our research brings more realism to branding research.

We also contribute to an emerging stream of research that examines how evolutionary psychology can impart insights into consumer behavior (Dahl, Sengupta, and Vohs 2009; Griskevicius et al. 2009). Prior research in psychology has shown that mating mind-sets can trigger changes in conformity, aggression, and even preference for conspicuous or benevolent products (Griskevicius et al. 2009). First, we add to this body of research by showing that mating mind-sets can affect responses to brand extensions. Moreover, we identify various moderators (prestige vs. functional brands, direct vs. subbrand architecture) that add to the understanding of mating mind-sets. Second, we make an important contribution by showing that effects of mating mind-sets on brand extension evaluations stem from the accessibility of relational thoughts. To our knowledge, this is the first study to directly manipulate the accessibility of relational thoughts (through prestige vs. functional brands) and test how it interacts with mating mind-sets. Finally, we demonstrate that the effects of mating mind-sets on brand extension evaluation are driven by a motivational process.

Managerial Contributions

Our findings make significant contributions in advancing managerial knowledge. The prevailing view that brands should not extend too far away from the parent brand is sensible advice; yet it is also restrictive. What can managers do if they must extend their brands to distant categories? Our findings suggest the following. First, our findings suggest that managers may be able to manipulate mating mind-sets to elicit more favorable brand extension responses among consumers. Advertising new brand extensions on dating websites or introducing brand extensions during periods when consumers are likely to be in a mating mind-set (around Valentine's Day) are possible options. Notably, some brands (e.g., De Beers, Paris) and products (e.g., perfumes, jewelry) are positioned with respect to mating themes, and our research suggests that they may have an advantage in launching brand extensions. Furthermore, our findings suggest that female consumers are less amenable to the effects of short-term mating mind-sets. To address this, we suggest strategies available to managers to leverage the favorable effects of mating mind-sets. First, launching brand extensions using prestige brands rather than functional brands is one option. Thus, managers of prestige

brands have greater leeway in launching dissimilar brand extensions. Second, launching brand extensions using a subbrand architecture instead of a direct brand architecture can boost evaluations for female consumers.

Further Research

Our research represents an important launching point for exploring the influence of mating mind-sets. Prior research has shown that launching a dissimilar brand extension can decrease the positive attitudes and associations that consumers hold toward a certain brand (Gürhan-Canli and Maheswaran 1998; Loken and John 1993). However, our research implies that male consumers in a mating mind-set may be less likely to show brand dilution because of their ability to see more relationships between the brand and the extension. A limitation of our research is that we measured mood and arousal after measuring all our dependent variables. Thus, further research could examine how mating primes' effect on mood and arousal vary with the elapse of time. Another worthwhile avenue to explore is the role of depletion. In Study 4, it could be speculated that for male consumers in the high goal satiation condition, resources are depleted, which prevents creativity expression. In contrast, recent research has shown that taking steps toward goal fulfillment does not deplete but rather frees up resources (Masicampo and Baumeister 2011). Moreover, our goal satiation task was a simple task that generally should not deplete resources. However, this issue could be explored in more depth. Further research could also examine how mating mind-sets influence consumer responses to hybrid products (Rajagopal and Burnkrant 2009). Exploring these ideas would provide important boundary conditions for the effect of mating mind-sets.

APPENDIX: MEDIATION ANALYSES

Study 1

Kodak. For the mating mind-set and the Kodak brand extension,

1. Gender predicts brand extension evaluation ($\beta = -.25$, $t = 2.11$, $p < .05$);
2. Gender predicts relational thoughts ($\beta = .30$, $t = 2.54$, $p < .05$); and
3. When brand extension evaluation is regressed on gender and relational thoughts, the effect of relational thoughts remains significant ($\beta = .57$, $t = 5.39$, $p < .001$), while that of gender drops to nonsignificance ($\beta = .04$, $t = .43$, $p > .1$).

For the nonmating mind-set and the Kodak brand extension, there was no mediation.

McDonald's. For the mating mind-set and the McDonald's brand extension,

1. Gender predicts brand extension evaluation ($\beta = -.21$, $t = -2.1$, $p < .05$);
2. Gender predicts relational thoughts ($\beta = -.17$, $t = -1.7$, $p = .07$); and
3. When brand extension evaluation is regressed on gender and relational thoughts, the effect of relational thoughts remains significant ($\beta = .52$, $t = 5.97$, $p < .001$), while that of the gender drops to nonsignificance ($\beta = -.11$, $t = -1.35$, $p > .1$).

For the nonmating mind-set and the McDonald's brand extension, there was no mediation.

Study 2

For Study 2, the regression equations are as follows:

1. Brand \times gender \times mind-set interaction predicts brand extension evaluation ($\beta = -.13, t = -1.98, p < .05$);
2. Brand \times gender \times mind-set interaction predicts relational thoughts ($\beta = -.13, t = -1.69, p = .09$);
3. When brand extension evaluation is regressed on the three-way interaction and relational thoughts, the effect of relational thoughts remains significant ($\beta = .17, t = 2.62, p < .01$), while that of the three-way interaction drops in significance ($\beta = -.11, t = -1.77, p = .08$); and
4. Sobel's test (statistic = $-1.52, p = .06$).

Study 3

For Study 3, the regression equations are as follows:

1. Ad type \times gender interaction predicts extension evaluations ($\beta = -.77, t = -2.56, p < .05$);
2. Ad type \times gender interaction predicts message quality ($\beta = -.73, t = -2.42, p < .05$); and
3. When ad type \times gender interaction and message quality were regressed on extension evaluation, the effect of message quality remains significant ($\beta = .58, t = 10.68, p < .001$), while that of the ad type \times gender interaction drops to non-significance ($\beta = -.35, t = -1.4, p > .10$).

Study 4

For Study 4, the regression equations are as follows:

1. Goal satiation \times gender interaction predicts extension evaluations ($\beta = .32, t = 3.69, p < .001$);
2. Goal satiation \times gender interaction predicts relational thoughts ($\beta = .18, t = 1.99, p < .05$);
3. When goal satiation \times gender interaction and relational thoughts were regressed on extension evaluation, the effect of relational thoughts remains significant ($\beta = .18, t = 2.03, p < .05$), while that of the goal satiation \times gender interaction drops in significance ($\beta = .28, t = 3.2, p < .01$); and
4. Sobel's test (statistic = $1.62, p = .05$).

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