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Temporal Construal and Brand Extension Evaluation

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Abstract

Past research shows that several situational factors like self-construal and field dependency influences the evaluation of an extension. In this paper, I show that the evaluation of an extension is influenced by how people think in time, a widely explored situational factor. I use findings from the temporal construal theory to show that the evaluation of an extension depends on whether one is in a near or distant temporal mindset. I show that when consumers are in a near temporal mindset, they favorably evaluate an exemplar extension compared to a prototype extension and vice versa when they are in a distant temporal mindset.

A brand and its products form the brand category. Seeing a brand as a category determines how the brand extension is evaluated by the consumer (Boush and Loken 1991). Research shows that an extension is favorably evaluated when it fits the parent brand category (Boush and Loken 1991; Keller 2002). Mao and Krishnan (2006) demonstrated that fit may be similar to an existing product of the brand, as in exemplar fit, or with the "generalized imagery of the brand" (p.42), as in a prototype fit. For example, if Nike launches a kneepad extension, it will be perceived similar to a prototype of the brand Nike, "athletic" (Mao and Krishnan 2006). Or, if Nike launched a new pair of sports shoes, it would be perceived in a very similar way as an already existing exemplar, another Nike shoe. Consequently, both extensions would have a fair chance of success.

I expect that the extension evaluation depends on the temporal construal. In the following section, I explore the interaction of the type of extension fit and the temporal construal of consumers on their evaluation of the extension.

Temporal Construal and Prototype/Exemplar Fit

When evaluating an extension, consumers engage in a category verification task. Research shows (Maa and Krishnan 2006) that a brand category can be represented by the exemplars or prototypes associated with the brand. Therefore, whether an extension is liked will be determined by an exemplar or prototype fit with the brand. Furthermore, the accessibility of brand knowledge has an influence on the brand extension evaluation (Ng and Houston 2006). This accessibility is also determined by the temporal construal of an event . For example , when one thinks about the near future events , concrete representation are used to describe the events ,while when one thinks about distant future events, abstract representation depict how the event will be construed (Liberman and Trope 1998). As a demonstration of this theory , which is popularly known as the temporal construal theory (Trope and Liberman 2003) , " I am an African America working for GE in New York" is a near temporal

representation of an event, while, " I am Black Woman " describe the same self from a distant temporal perspective. Therefore, when individuals are in a near temporal mindset they would prefer an extension that is a concrete representation of the brand. Exemplar extension is an example of such a concrete representation. While when one is in a distant temporal perspective one would prefer to see what the brand means in general, leading to the preference for protypes extension. Therefore, it is primarily the most accessible brand knowledge that will determine the favorability of an extension. Since the temporal construal has an influence on the representation of a brand category, it would also affect the evaluation of an extension. Based on this theoretical background, I propose the following hypotheses .

H_{1a}: Individuals with near temporal construals will evaluate an exemplar fit extension more favorably than a prototype fit extension.

H_{1b}: For an exemplar fit extension, individuals with near temporal construals will evaluate the extension more favorably than individuals with distant temporal construals.

H_{2a}: Individuals with distant temporal construals will evaluate a prototype fit extension more favorably than an exemplar fit extension.

H_{2b}: For a prototype fit extension, individuals with distant temporal construals will evaluate the extension more favorably than individuals with near temporal construals.

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Insert Figure 1 about here

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The purpose of this study was to test whether the evaluation of exemplar and prototype fit extensions changed with a different temporal construal.

Experimental Stimulus. I used Johnson & Johnson as the experimental brand. Two extension types, an exemplar fit, "bath sponge," and a prototype fit, the "purifying mask," were used as brand extension stimuli (Mao and Krishnan 2006).

Manipulation check of the prototype and exemplar fit extensions. Thirty participants rated each extension's similarity to the brand and to each of the existing products of the brand on a three-item, seven-point scale. The items include the types of needs satisfied, situations in which the products are used, and physical features. The participants rated the prototype fit extension as more similar to the brand (M = 4.74(1.21) versus M = 2.31 (1.23), t(29) = 18.58, $p < .01$), while they rated the exemplar fit extension as more similar to an existing product (M = 4.50 (.98) versus M = 2.77 (1.01), t (29) = 7.91, $p < .01$). This confirmed that the manipulations were perceived as such.

Method: Design, Participants, Variables, and Procedure

A 2 (temporal construal: near versus distant) × 2 (brand extension evaluation: prototype versus exemplar fit) mixed ANOVA design was used. The participants were 112 students (42% female, 58% male) at a large U.S. university, ranging in age from 19 to 34.

Independent Variables. The temporal construal (manipulated) and the brand extension (prototype and exemplar fit).

Dependent Variable. Following Mao and Krishnan (2006), the participants' extension evaluation was defined as the difference between the extension and the product attitude score.

Procedure: First, the participants' temporal construal was manipulated. Second, they were exposed to a fictitious news release. The news release contained (i) a brief description of the

company (Johnson & Johnson), and (ii) the new extensions (the "purifying mask" and "bath sponge").

Next, the participants reported their attitude toward the extension on a five-item seven-point scales (bad/good, not pleased/pleased, not likeable/ likeable, undesirable/desirable, low quality/high quality, α = .92) (Kim and John 2008; Park, Milberg and Lawson 1991). Following which, they evaluated the Johnson & Johnson brand and the product categories to which the brand was extended, the "bath sponge" and "purifying mask" (bad/good, not pleased/pleased, not likeable/likeable, α = .88). Finally, they completed several classification questions. I thanked and debriefed them.

Results

See Table 1 for cell means. The 2 (temporal construal: near versus distant future) $2 \times$ (extension type: prototype versus exemplar fit) mixed design analysis, with the temporal construal as the between subject factor, the extension type as the within subject factor, and brand attitude as a covariate, yielded a significant two-way interaction ($F(1, 109) = 37.77$, $p <$ .01). The covariate did not have any significant effect (F < 1). Consistent with hypothesis 2a, a paired sample t-test revealed that the participants assigned to the distant temporal condition evaluated a prototype fit more favorably than an exemplar fit extension ($M_{Prototype} = .69$ (.66) versus $M_{Exemplar} = .38$ (.73), t(55) = 3.51, $p < 0.01$). In contrast, consistent with hypothesis 1a, a paired sample t-test revealed that participants assigned to the near temporal condition evaluated an exemplar fit extension more favorably than a prototype fit extension ($M_{Prototype} = .14$ (.64) versus $M_{Exemplar} = .60$ (.57), t(55) = 4.93, $p < .01$).

Moreover, an independent sample t-test revealed that participants with near temporal construals evaluated an exemplar fit extension more favorably than participants with distant temporal construals ($M_{Near} = .60$ (.57) versus $M_{Distant} = .38$ (.73), t(110) = 1.77, $p < 0.10$), thereby supporting hypothesis 1b. But, an independent sample t-test revealed that participants

with the distant temporal construal evaluated the prototype fit extension more favorably than participants with the near temporal construal (M_{Near} = .14(.64) versus $M_{Distant}$ = .69 (.66), t(110) = 4.44, $p < 0.01$), thereby supporting hypothesis 2b.

Insert Table 1 about here

The results of study 1 demonstrate that the evaluations of exemplar and prototype fit extensions vary with an individual's temporal construal. In study 2, I will investigate the mechanism driving the evaluation of an extension across different temporal construals.

TEMPORAL CONSTRUAL AND CATEGORICAL AND PIECEMEAL EVALUATIVE PROCESSES

The evaluation of an extension includes a two-stage process: categorical and piecemeal evaluation (Boush and Loken 1991). During the categorical evaluative stage, the extension is judged on its similarity with an existing product of the brand category, i.e. an exemplar. If an extension is similar to an exemplar, it results in a "good fit" and enhances the evaluation of the extension. Only when the extension is not similar to an existing exemplar of the brand does it invoke the second stage of evaluation, the piecemeal evaluative process. In this stage, "the consumer is likely to judge, in a piecemeal way, whether the attributes that make up the abstract representation associated with the current brand name can be used to develop the potential extension" (Boush and Loken 1991, p. 19). I argue that individuals with different temporal construals will use either a categorical or a piecemeal evaluative process.

As the findings of study1 shows , prototypes of a brand are more accessible for individuals with distant temporal construals and, therefore, should be used to evaluate an extension. I postulate that, on the one hand, the use of prototypes for judging the favorability of an extension is similar to invoking a piecemeal evaluative process. However, the exemplars of a brand are more accessible to individuals with near temporal construals and, therefore, they will use a categorical evaluative process for evaluating an extension. Based on this background, I propose the following hypotheses:

H_{3a}: Categorical evaluative processes will be used to evaluate an extension when individuals have near temporal construals.

H_{3b}: Piecemeal evaluative processes will be used to evaluate an extension when individuals have distant temporal construals.

In study 2, I explore whether the evaluative processes used in extension evaluation, categorical versus piecemeal, changed with a different temporal construal. Here, I used a narrow brand, Cheerios, to replicate the findings of the broad brand used in study 1, Johnson & Johnson, and to study the underlying process of extension evaluation.

PRETESTS

Pretest 1. The purpose of this pre-test was to generate exemplar and prototype fit brand extensions of the Cheerios brand. Thirty students, were asked to generate new product ideas for Cheerios. They were asked to generate two types of new product ideas: *Product Type 1*, which are products similar to the existing product(s) of Cheerios, and *Product Type 2*, which are products that do not have any apparent similarity with existing products of Cheerios, but are similar to the beliefs or attributes associated with Cheerios. Participants were given an example to clarify the notion of *Product Type 1 and 2*. If Apple launched a "9th generation

iPod," it would be similar to an existing product of Apple, the iPod, and, therefore, would belong to *Product Type 1.* If Apple launched an "iCar," it would not be similar to existing Apple products but the beliefs or attributes associated with Apple, e.g. innovative, technology savvy, and sleek, may be relevant in a new product context, and "iCar" would belong to *Product Type 2.* Altogether, 25 new products were generated. For example, Cheerios "trail mix," "Strawberry Cheerios," or "Chocolate Cheerios" for *Product Type 1* and "Cheerios breakfast bars," "Cheerios crackers," or "Cheerios cereal bowl" for *Product Type 2.*

Pretest 2. The purpose of this pre-test was to select exemplar and prototype fit extensions from those generated in pre-test 1 for the experimental stimuli for study 2. Following Park, Milberg and Lawson (1991), a group discussion with five students was held and led to the selection of "Blueberry Cheerios" and "Cheerios granola bar" for *Product Type 1* (exemplar fit extensions), and "Cheerios milk" and "Cheerios fruit juice" for *Product Type 2* (prototype fit extensions).

Pretest 3. Pre-test 3 was conducted to pick the extensions that best fit the manipulation of the exemplar. For example, although both "Blueberry Cheerios" and the "Cheerios granola bar" satisfied the definition of the exemplar fit, one of them may be a better manipulation of an exemplar fit extension than the other. Thirty-five students were asked to judge the similarity of the exemplar extensions with the existing products of Cheerios. A paired sample t-test revealed that the "Cheerios granola bar" ($M_{Cheerios\ granola\ bar} = 5.50$ (1.13) versus $M_{Blueberry\ Cheerios} = 4.54$ (1.27), $t(34) = 3.21$, $p < .01$) was most similar to existing products of Cheerios. Consequently, "Cheerios granola bar" was used as the experimental stimulus.

Pretest 4. Pre-test 4 was conducted to pick the extensions that best fit the manipulation of the prototype. Following Park, Milberg, and Lawson (1991), another group of 37 students was asked to rate the importance of the attributes (prototypes) associated with Cheerios, e.g. healthy, nutritious, and lowering cholesterol, for buying "Cheerios milk" and "Cheerios fruit juice," to determine the extension that is closest to prototype fit manipulation. The attribute

rating was combined to form a multi-attribute index ($\alpha = .92$). The attributes were chosen from the most commonly listed prototypes in pretest 1. A paired sample t-test revealed that the mean multi-attribute rating for "Cheerios fruit juice" was significantly greater than for "Cheerios milk" ($M_{\text{Cheerios fruit juice}} = 5.23$ (1.06) versus $M_{\text{Cheerios milk}} = 4.81$ (.70), $t(36) = 2.24$, $p < .05$). Consequently, "Cheerios fruit juice" was used in study 2 as the experimental stimulus. Moreover, after comparing across exemplar and prototype fit extensions, I found that there is no significant difference in the extension of fit ($M_{\text{Cheerios fruit juice}} = 5.23$ (1.06) versus $M_{\text{Cheerios granola bar}} = 5.50$ (1.13), $t(70) = 1.02$, $p > .10$).

The purpose of study 2 was to replicate the findings of study 1 with a narrow brand and test whether the evaluative processes, categorical and piecemeal, dependent temporal construals.

STUDY 2

Method: Design, Participants, Variables, and Procedure

A 2 (temporal construal: near versus distant) $\times$ 2 (extension fit: prototype versus exemplar) between subject design was used. The participants were 64 students (48% female, 52% male) at a large U.S. university, ranging in age from 20 to 26.

Independent Variables. Temporal construal (manipulated) and types of brand extension fit (prototype and exemplar).

Dependent Variable. The evaluation of the extensions. The participants rated the extensions on a seven-point, three-item scale. The items included "very bad/very good," "not likeable/very likeable," and "not pleased/very pleased" (Park, Milberg and Lawson 1991; $\alpha = .90$).

Procedure: First, the participants' temporal construal was manipulated as in study 1. Next, they were exposed to the extension names and evaluated the extensions. They listed their thoughts while they evaluated the extensions. Finally, they rated the favorability and familiarity of Cheerios and completed classification questions. I thanked and debriefed them.

Results

See Table 2 for cell means. A 2 (temporal construal: near versus distant future) × 2 (extension type: prototype versus exemplar fit) between subject analysis, with familiarity and favorability as covariates, yielded a significant interaction ($F(1, 58) = 34.32$, $p < .01$). The covariates did not have any effect (all F's < 1).

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Insert Table 2 about here

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Planned contrasts revealed that, consistent with hypothesis 2a, participants assigned to the distant temporal construal evaluated a prototype fit extension more favorably than an exemplar fit extension ($M_{Prototype} = 5.16$ (.68) versus $M_{Exemplar} = 4.41$ (.81), $t(1,60) = 2.41$, $p < .05$). In contrast, consistent with hypothesis 1a, participants assigned to the near temporal construal more favorably evaluated an exemplar fit extension than a prototype fit extension ($M_{Prototype} = 3.77$ (1.06) versus $M_{Exemplar} = 5.58$ (.80), $t(1,60) = 6.24$, $p < .01$).

Near temporal construal participants evaluated the exemplar fit extension more favorably than those with distant temporal construal ($M_{Near} = 5.58$ (.80) versus $M_{Distant} = 4.41$ (.81), $t(1,60) = 3.54$, $p < .01$), thereby supporting hypothesis 1b. While the distant temporal construal participants evaluated prototype fit extension more favorably than those with near temporal construal ($M_{Near} = 3.77$ (1.06) versus $M_{Distant} = 5.16$ (1.68), $t(1, 60) = 5.14$, $p < .01$), thereby supporting hypothesis 2b.

Process Evidence

Participants' thought listing when evaluating the extensions was categorized by two coders into piecemeal and categorical evaluative processes (inter-rater-reliability was 98%, differences were resolved through discussions). Product attributes or thoughts related to the suitability of the extensions, e.g. "Cheerios is healthy and fruit juice is healthy" or "fruit juice

and cereal are both breakfast items," were coded as piecemeal evaluative thoughts (Boush and Loken 1991). While thoughts related to the product category associated with Cheerios, e.g. "I think of cereal when I think of Cheerios," were coded as categorical evaluative thoughts. See table 3 for the cell means.

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Insert Table 3 about here

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A MANOVA analysis showed that there was significant interaction between the evaluative thoughts and the temporal construals of the participants ($F(2, 61) = 5.79$, $p < .01$). Planned contrasts revealed that near temporal construal participants used more categorical than piecemeal evaluative thoughts ($M_{Categorical} = .84$ (.91) versus $M_{Piecemeal} = .40$ (.61), $t(31) = 2.30$, $p < .05$), thereby supporting hypothesis 3a. In contrast, participants with the distant temporal construal used significantly more piecemeal than categorical evaluative thoughts ($M_{Piecemeal} = .78$ (1.06) versus $M_{Categorical} = .31$ (.53), $t(31) = 2.35$, $p < .05$), thereby supporting hypothesis 3b.

Conclusion

The results of study 2 mirrored the findings of study 1 with a narrow brand. Moreover, differences in the evaluation of exemplar and prototype fit extensions across different temporal construals resulted from the use of different evaluative processes, categorical versus piecemeal. Individuals with a near temporal construal are more predisposed to use categorical evaluative processes. Consequently, they evaluate an exemplar fit extension more favorably than a prototype fit extension. Meanwhile, individuals with a distant temporal construal are inclined to use piecemeal evaluative processes and, they evaluate a prototype fit extension more favorably than an exemplar fit extension.

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Table 1
TEMPORAL CONSTRUAL AND EVALUATION OF EXEMPLAR AND PROTOTYPE
EXTENSION FOR JOHNSON & JOHNSON

Temporal Construal	Evaluation of Prototype Extension Means(SD)	Evaluation of Exemplar Extension Means (SD)	t-Test	Comments
Near (n = 56)	.14 (.64)	.60 (.57)	4.93[**]	Near temporal individuals evaluated the exemplar fit extension more favorably than the prototype fit extension.
Distant (n = 56)	.69 (.66)	.38 (.73)	3.51[**]	Distant temporal individuals evaluated the prototype fit extension more favorably than the exemplar fit extension.

**$p < .01$

Table 2
TEMPORAL CONSTRUAL AND EVALUATION OF EXEMPLAR AND PROTOTYPE
EXTENSION
FOR CHEERIOS

| Temporal Construal	Evaluation of Prototype Extension Means(SD)	Evaluation of Exemplar Extension Means (SD)	t-Test	Comments
Near (n = 32)	5.58 (.80)	3.77 (1.06)	6.24[**]	Near temporal individuals evaluated the exemplar fit extension more favorably than the prototype fit extension.
Distant (n = 32)	5.16 (.68)	4.41 (.81)	2.41[**]	Distant temporal individuals evaluated the prototype fit extension more favorably than the exemplar fit extension.

$**p < .01$
$*p < .05$

Table 3
TEMPORAL CONSTRUAL AND CATEGORICAL AND PIECEMEAL EVALUATION

Temporal Construal	Categorical Evaluative Thoughts Means(SD)	Piecemeal Evaluative Thoughts Means (SD)	t-Test	Comments
Near (n = 32)	.84 (.91)	.40 (.61)	2.30[*]	Near temporal individuals used more categorical than piecemeal evaluative thoughts.
Distant (n = 32)	.31 (.53)	.78 (1.06)	2.35[*]	Distant temporal individuals used more piecemeal than categorical evaluative thoughts.

*$p < .05$

Figure 1

HYPOTHESIZED INTERACTION OF TEMPORAL CONSTRUAL AND EXEMPLAR
AND PROTYPE FIT EXTENSIONS
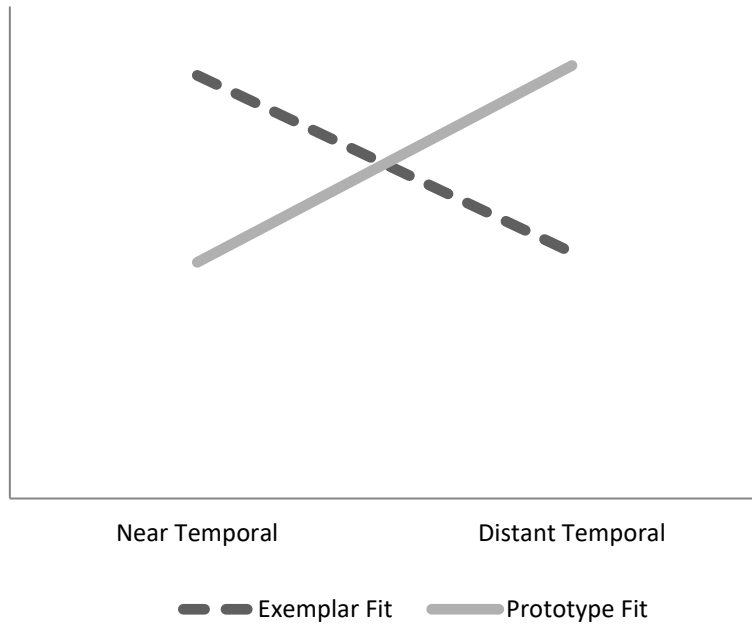
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