

# Got to Get You into My Life: Do Brand Personalities Rub Off on Consumers?

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When consumers use brands with appealing personalities, does the brand's personality "rub off" on them? The answer is yes, but only for consumers who hold certain beliefs about their personality. Entity theorists perceive themselves to be better looking, more feminine, and more glamorous after using a Victoria's Secret shopping bag (study 1) and more intelligent, more of a leader, and harder working after using an MIT pen (study 2); incremental theorists are unaffected. In two subsequent studies, we find that entity theorists use brands with appealing personalities to signal their positive qualities, thereby enhancing self-perceptions in line with the brand's personality. These findings implicate implicit self-theories as a key factor in understanding how brand experiences affect consumers.

**B**rand personality is a key element of the brand's image for many consumer brands. Brands can be positioned on the basis of human qualities, such as sincerity (e.g., honest, down to earth), excitement (e.g., trendy, cool), competence (e.g., intelligent, hardworking), sophistication (e.g., good-looking, glamorous), and ruggedness (e.g., tough, masculine; Aaker 1997). For example, Cartier is associated with sophistication, whereas Timex is associated with ruggedness. Brand personality often differentiates a brand from competitors, and it is appealing to consumers who wish to express, affirm, or enhance their sense of self.

In this article, we ask the question: When consumers use brands with appealing personalities, does the brand's personality "rub off" on them? In other words, do consumers perceive themselves as having the brand's personality after they use the brand? If a consumer wears a Cartier watch, which is associated with sophistication, will she perceive herself as more sophisticated? Research shows that consumers often prefer and choose brands with appealing personalities in an attempt to affirm and enhance their sense of self (Escalas and Bettman 2003; Gao, Wheeler, and Shiv 2009; Swaminathan, Stilley, and Ahluwalia 2009). However,

these studies do not observe consumers actually using brands, leaving unanswered the question of whether these brand experiences actually result in more positive self-perceptions in line with the brand's personality.

We propose that experiences with brands that have appealing personalities "rub off" on some, but not all, consumers. Specifically, we identify implicit self-theories that consumers hold about their personalities as a key determinant of whether consumers perceive themselves in a more positive light after using brands with appealing personalities. We find that only consumers who endorse a particular implicit self-theory view these types of brand experiences as opportunities to signal to themselves or others that they possess the same appealing traits as the brand, and only these consumers actually perceive themselves in a more positive way after a brand experience.

To focus our efforts, we examine brand experiences where only the signaling value of the brand can be experienced. For example, in the first study, we provide consumers with an opportunity to use a shopping bag from Victoria's Secret. Carrying the shopping bag provides an opportunity to signal desirable personal qualities through the brand, such as glamorous and feminine, but it does not provide an opportunity to experience functional aspects of products marketed under this brand. Restricting the brand experience in this way allows us to study the signaling value of brand personalities, which has been the focus of most prior research, without confounding it with the many factors that come into play when consumers use products.

Our research opens a new area of inquiry in understanding how consumers respond to brand personality. First, we extend the study of brand personality into the area of actual brand experience. Recent experimental work has studied

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*John Deighton served as editor and Debbie MacInnis served as associate editor for this article.*

*Electronically published July 6, 2010*

brand personality as an instrument for building and repairing the self, but it stops short of examining actual brand experiences. We find that using brands with appealing personalities can rub off on consumers, altering perceptions of their own personalities. Although these effects may not be permanent in nature, we find that self-perceptions are altered regardless of whether the brand experience is short-lived or repeated over time, in a public or private consumption context. Second, we introduce implicit self-theories as an important factor in understanding consumer response to brand personality. In doing so, we find that consumers' beliefs about their own personalities are key to predicting how they will respond to using brands with appealing personalities. The role that implicit self-theories play in consumer behavior is an emerging area of research, and we show that implicit self-theories are an important addition to understanding how brand experiences affect the way consumers see themselves.

## CONCEPTUAL BACKGROUND

### Implicit Self-Theories

Individuals develop lay theories, or knowledge structures, regarding the nature of the social world in order to interpret, predict, and control their social worlds (Lickel, Hamilton, and Sherman 2001). Among the most studied lay theories are implicit self-theories, which are lay beliefs about the malleability of our personalities. Researchers have identified two implicit self-theories: entity theory versus incremental theory. Individuals who endorse incremental theory ("incremental theorists") view their personal qualities as malleable, which they can improve through their own efforts. In contrast, individuals who endorse entity theory ("entity theorists") believe that their personal qualities are fixed, which they cannot improve through their own direct efforts (Dweck 2000; Dweck and Leggett 1988).

These contrasting views influence the way that individuals approach self-enhancement (Dweck 2000; Molden and Dweck 2006). Because incremental theorists believe that their personal qualities can be improved if they exert effort to do so, they seek out ways to become a better person through opportunities for learning, self-improvement, and growth. For example, college students with incremental theory beliefs are willing to take challenging classes that they believe will help them improve abilities to become more competent, even if there is a high risk of receiving a low grade (Dweck and Leggett 1988; Elliott and Dweck 1988). In contrast, entity theorists view personal qualities as something they cannot change by their direct efforts to learn, improve, or grow. In order to enhance the self, they seek out opportunities to signal their positive qualities to the self or others. College students with entity theory beliefs seek out easier classes where they are sure to receive a high grade, which signals their competence, even if these classes do not result in learning or skill acquisition (Dweck and Leggett 1988; Elliott and Dweck 1988).

When entity and incremental theorists engage in experiences

consistent with their preferred way to self-enhance, these experiences lead to more positive self-perceptions. For example, in a study with schoolchildren, Elliott and Dweck (in Dweck and Bempechat 1983) asked children when they felt smart in school. Children with incremental theory beliefs reported that they felt smart after engaging in effortful learning and self-development ("when I don't know how to do it, and it's pretty hard, and I figure it out without anyone telling me" or "when I'm reading a hard book"). In contrast, children with entity theory beliefs reported that they felt smart after signaling their capability ("when I don't do mistakes" or "when I turn in my papers first"). As this example illustrates, incremental theorists perceive the self in a more positive way through self-improvement opportunities, whereas entity theorists perceive the self in a more positive way through opportunities to signal positive qualities to the self or others (Dweck 2000; Dweck and Bempechat 1983).

In documenting these differences, prior research has most often examined individuals who have a chronic disposition to favor either entity theory or incremental theory. That is, beliefs in entity versus incremental theory are measured as an individual difference factor. However, researchers have also shown that beliefs in entity or incremental theory can be manipulated by exposing individuals to information advocating a particular theory. For example, studies have shown that exposing individuals to an article presenting scientific evidence that personal qualities are enduring and cannot be easily changed (entity theory) or that personal qualities are malleable and can be developed (incremental theory) leads to thoughts and behaviors consistent with the advocated theory (Chiu, Hong, and Dweck 1997; Hong et al. 1999; Yorkston, Nunes, and Matta 2010).

Prior research has also documented that differences between entity and incremental theorists are applicable across a wide range of personality traits. Although research on implicit self-theories began by studying intelligence (Dweck and Leggett 1988; Erdley et al. 1997; Robin and Pals 2002), subsequent research has expanded the scope to other domains, such as morality (Chiu et al. 1997; Dweck and Leggett 1988) and shyness (Beer 2002). Further, implicit self-theories are applicable to overall personality domains (Levy, Stroessner, and Dweck 1998; Plak, Grant, and Dweck 2005; Plak et al. 2001).

### Implicit Self-Theories and Brand Personalities

Brands offer a wide array of opportunities for consumers to express who they are and who they would like to be. Brands with distinctive and appealing personalities are especially well suited for this purpose. Consumers are attracted to brands with distinctive personalities when they wish to express, affirm, or enhance their sense of self (Aaker 1999; Escalas and Bettman 2003; Gao et al. 2009; Swaminathan et al. 2009).

We propose that implicit self-theories affect the way consumers respond to experiences with brands that have appealing personalities. Recall from our preceding discussion that entity theorists seek opportunities to signal their desired

positive qualities, and when they engage in signaling behavior, they perceive themselves in a more positive light. Using a brand associated with appealing personality traits provides entity theorists with an opportunity to signal that they possess the same appealing personality traits as the brand. Thus, we predict that entity theorists will use these brand experiences as a self-signal, and in doing so, will perceive themselves more positively in line with the appealing personality traits associated with the brand. For example, after experiencing a brand such as Victoria's Secret, which is associated with personality traits such as glamorous, good-looking, and feminine, entity theorists will perceive themselves as more glamorous, good-looking, and feminine.

What about incremental theorists? Although incremental theorists use brands with appealing personalities, and may even prefer these brands to others, they are unlikely to feel more positive about themselves just because the brand has a desirable personality. Recall from our prior discussion that incremental theorists seek opportunities for self-improvement through learning, self-development, and growth, and therefore they will be more likely to use brands for a self-improvement purpose. For incremental theorists, brand experiences that only provide an opportunity to signal one's personal qualities through appealing brand personalities do not match their approach to self-enhancement. Therefore, they are unlikely to use these brand experiences as signals of the self, and they are unlikely to have their self-perceptions affected by this type of brand experience.

### Overview of Empirical Studies

We test our predictions with four studies. The first two studies test our predictions in natural field settings. The first study was conducted in a shopping mall, where female consumers were given the opportunity to use a Victoria's Secret shopping bag; the second study was conducted with MBA students who were given the opportunity to use an MIT pen for a period of 6 weeks. Across studies, we find entity theorists were the most affected by their brand experiences. Entity theorists perceived themselves to be more feminine, glamorous, and good-looking after carrying the Victoria's Secret shopping bag *and* more intelligent, harder working, and more of a leader after using the MIT pen. Incremental theorists were unaffected by these brand experiences.

The next two studies provide support for the rationale underlying our predictions. In study 3, we provide female undergraduate students with an opportunity to use a Victoria's Secret shopping bag, and we directly measure the extent to which participants use the Victoria's Secret brand to signal the self. We find that use of the brand as a self-signal mediates the relationship between implicit self-theories and self-perceptions after brand experience. Compared to incremental theorists, entity theorists make greater use of the brand experience as a signaling opportunity, which leads to perceptions that they are more feminine, glamorous, and good-looking after carrying the Victoria's Secret shopping bag. In study 4, we manipulate the motivation to self-enhance by introducing

a threat to students' self-perceptions of competence (intelligent, hardworking, leader), and we then provide an opportunity to use an MIT pen. Only entity theorists recovered their sense of self through the MIT pen, indicating that entity theorists used the MIT pen as an opportunity to signal their competence after a self-threat.

## STUDY 1

### Brand Pretests

Pretests confirmed Victoria's Secret to have an appealing brand personality, making it well suited for our study. Pretest measures were based on Aaker's (1997) brand personality scale, consisting of 42 personality traits representing five major dimensions of brand personality: sincerity, sophistication, competence, excitement, and ruggedness. Using this list of 42 items, we asked women aged 18–34 ( $n = 40$ ) to select five traits that they strongly associate with Victoria's Secret. Results showed three traits out of 42 personality traits were most frequently selected as strongly associated with this brand: glamorous (72.5% of respondents), feminine (72.5% of respondents), and good-looking (62.5% of respondents). The remaining 39 traits were mentioned by less than 50% of the respondents. We also asked women how interested they would be in an opportunity to enhance themselves on all 42 personality traits (0 = not at all interested; 100 = extremely interested), which revealed a high degree of interest in the traits associated with Victoria's Secret: glamorous ( $M = 60.10$ ), feminine ( $M = 62.63$ ), and good-looking ( $M = 69.23$ ; mean for all traits = 49.78). Further, there was no difference between entity and incremental theorists (measure described below) in their ratings of these traits (all  $p > .20$ ).

Based on this data, we selected Victoria's Secret as the brand. We used the three personality traits most strongly associated with this brand (good-looking, feminine, and glamorous) to measure self-perceptions in the main study.

### Sample and Procedure

Eighty-five women were recruited by a marketing research firm using mall intercepts: 48 women were recruited for the brand experience condition during one session, and 37 women were recruited for the no brand experience condition in a second session. Women were invited to participate if they were 18–34 years of age, planning to shop in the mall for at least 1 hour, and liked Victoria's Secret. These criteria reduced some of the inherent heterogeneity present in a shopping mall population, making it possible to use a smaller and less costly sample. Seventy percent of shoppers approached qualified for the study, with age and lack of time to shop being the primary reasons for disqualification (85% of disqualifications). Of those qualifying for the study, 88% agreed to participate and were escorted to the research facility in the mall.

First, participants were given a survey to complete; this consisted of several pages of questions about their attitudes

and opinions. Embedded in the survey were items measuring self-perceptions on the focal personality traits and the implicit self-theory measure. After completing the survey, participants were told that the purpose of the study was to obtain consumer opinions about shopping bags and that they would be selecting a shopping bag to use. In the brand experience condition, respondents were allowed to select a Victoria's Secret shopping bag or a less appealing bag (less sturdy bags from Old Navy and Limited Too). Although all of the participants selected the Victoria's Secret bag, as intended, we asked them to make a choice to reduce suspicion about the study, suppress demand effects, and discourage discounting of the brand experience if forced to use a Victoria's Secret bag. In pilot tests, there was little suspicion about the study when participants were allowed to *select* the Victoria's Secret bag (1 out of 69), whereas over 10% of participants *given* a Victoria's Secret bag expressed suspicion (7 out of 59). These findings, and prior research suggesting that allowing a choice of bag would be unlikely to influence the extent to which the brand experience would affect self-perceptions (Jones et al. 1981), supported our procedure. In the no brand experience condition, respondents selected between either an attractive plain pink shopping bag (same color as the Victoria Secret bag) or the same unappealing bags (Old Navy and Limited Too bags). All participants chose the plain pink shopping bag.

Participants were then instructed to carry their shopping bag for at least 1 hour before returning to the research facility. Upon returning, respondents completed a survey asking them to evaluate the shopping bag and to answer a variety of questions about themselves. Embedded in these questions were items asking for their self-perceptions on the focal personality traits. Finally, participants were debriefed, thanked, and paid \$25 for their participation.

## Measures

**Self-Perceptions.** Participants were asked how well a set of 12 personality traits described them on a 1 (not at all like me) to 7 (very much like me) scale. The three focal personality traits associated with Victoria's Secret (good-looking, feminine, glamorous) were embedded in the list of other traits not related to Victoria's Secret in our pretest (sincere, friendly, cheerful, confident, sentimental, spirited, exciting, daring, successful). Ratings for the three focal personality traits were averaged ( $\alpha = .88$ ). Self-perceptions were measured prior to the shopping bag experience (used as a control variable in analyses) and after the shopping bag experience (the key dependent variable in our analyses).

**Implicit Self-Theory.** Belief in entity versus incremental theories of personality was assessed using the Implicit Persons Theory Measure (Levy et al. 1998). Participants responded to eight statements, four statements representative of entity theory (E) and four representative of incremental theory (I), on a scale from 1 (strongly disagree) to 7 (strongly agree):

- Everyone is a certain kind of person, and there is not much that they can do to really change that. (E: reverse coded)
- The kind of person someone is is something basic about them, and it can't be changed very much. (E: reverse coded)
- People can do things differently, but the important parts of who they are can't really be changed. (E: reverse coded)
- As much as I hate to admit it, you can't teach an old dog new tricks. People can't really change their deepest attributes. (E: reverse coded)
- People can change even their most basic qualities. (I)
- Everyone, no matter who they are, can significantly change their basic characteristics. (I)
- People can substantially change the kind of person who they are. (I)
- No matter what kind of person someone is, they can always change very much. (I)

Responses for all eight items were combined into a scale ( $\alpha = .89$ ), with higher scores indicating a stronger belief in incremental theory.

**Shopping Bag Evaluation.** Participants evaluated the shopping bag they carried on several attributes (easy to carry, comfortable handles) on a 1 (not at all) to 7 (very much) scale. Responses to these two items were combined into an evaluation measure ( $\alpha = .85$ ). Because consumers were allowed to use the shopping bag as they wished, it was impossible to control any negative experiences they might have, such as loading the shopping bag with bulky items (making it hard to carry). To account for potentially unpleasant experiences, shopping bag evaluations were used as a control measure in the main analyses.

## Results

We conducted a multiple regression analysis to test our prediction that carrying the Victoria's Secret shopping bag would result in more positive self-perceptions on personality traits associated with Victoria's Secret—for entity theorists but not incremental theorists. The analysis included self-perceptions after carrying the shopping bag as the dependent measure, with implicit self-theory (continuous variable), experimental condition (brand experience = 0, no brand experience = 1), and the interaction between implicit self-theory and experimental condition as independent variables (Fitzsimons 2008). Responses for the implicit self-theory measure were centered by subtracting the mean from each person's score to eliminate multicollinearity (Aiken and West 1991). Self-perceptions prior to shopping bag use and shopping bag evaluation were included as control variables.

Support for our prediction was expected to emerge in the form of an interaction between implicit self-theory and experimental condition. As expected, the interaction was significant ( $\beta = .23$ ,  $t(79) = 2.09$ ,  $p < .05$ ), even after con-

trolling for shopping bag evaluation ( $\beta = .01$ ,  $t(79) < 1$ , NS) and preexisting self-perceptions ( $\beta = .99$ ,  $t(79) = 22.91$ ,  $p < .01$ ). This effect is illustrated in figure 1, which is plotted at one standard deviation below the mean of the implicit self-theory measure ( $-1SD$ : entity theorists) and one standard deviation above the mean of the measure ( $+1SD$ : incremental theorists) by substituting these values into the regression equation (Cohen and Cohen 1983). To explore this interaction in more detail, we tested simple slopes at values one standard deviation above and below the mean of implicit self-theory (Aiken and West 1991; Cohen and Cohen 1983). We found a significant negative relationship between experimental condition (brand experience = 0, no brand experience = 1) and self-perceptions after using a shopping bag for entity theorists ( $-1SD$ ;  $\beta = -.36$ ,  $t(79) = 2.59$ ,  $p < .05$ ), but not for incremental theorists ( $+1SD$ ;  $\beta = .09$ ,  $t(79) < 1$ , NS). Entity theorists perceived themselves as better looking, more feminine, and more glamorous after using a Victoria's Secret bag than after using the plain pink shopping bag. Incremental theorists were not affected by the shopping bag they carried.

## Discussion

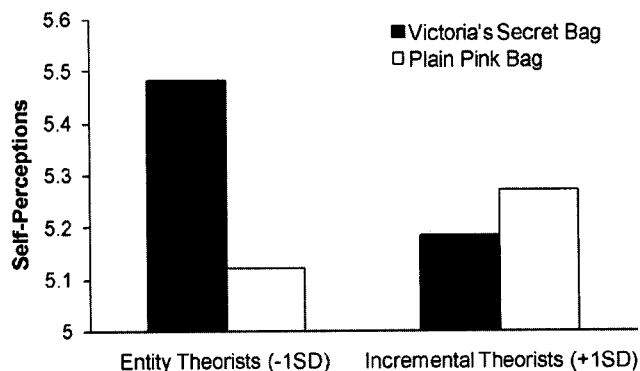
Our findings show that using a brand with an appealing personality can rub off on some, but not all, consumers. We found that only entity theorists perceived themselves to be more good-looking, feminine, and glamorous after using a Victoria's Secret shopping bag. These results are consistent with our view that entity theorists respond to brand experiences that provide an opportunity to signal their positive qualities.

Is it possible that brand experiences influence consumer self-perceptions on a broader scale—not just the personality traits associated with the Victoria's Secret brand? To answer this question, we examined self-perceptions for the nonfocal personality traits that were included in the survey (e.g., sincere, confident). Using the multiple regression analysis described above, we found that the main effects (implicit self-theory, experimental condition) and the interaction effect (implicit self-theory  $\times$  experimental condition) did not reach significance (all  $p > .20$ ). Using the Victoria's Secret shopping bag had no effect on consumer self-perceptions for personality traits unconnected to the brand for both entity and incremental theorists. Thus, entity theorists felt more positive about themselves after using the Victoria's Secret shopping bag (vs. the plain pink bag), but only with respect to the personality traits associated with Victoria's Secret.

In the next study, we replicate and extend our findings. First, we use a brand (MIT) associated with a different brand personality (intelligent, leader, hardworking) than the one conveyed by Victoria's Secret. This allows us to explore whether entity theorists will be influenced even when the brand's personality is focused on traits that may be considered less malleable (e.g., intelligence) than ones associated with Victoria's Secret (e.g., glamorous). Second, we varied the nature of the brand experience, asking participants to use the branded item (MIT pen) for 6 weeks. This allows us to generalize our

FIGURE 1

STUDY 1: SELF-PERCEPTIONS FOR PERSONALITY TRAITS ASSOCIATED WITH VICTORIA'S SECRET



findings to repeated brand experiences and to examine whether repeated brand experience might influence the self-perceptions of incremental theorists, who were unaffected by a single brand experience in the first study.

## STUDY 2

MBA students at the University of Minnesota were given the opportunity to use a pen embossed with MIT (MIT brand experience) or a regular pen (no MIT brand experience). Entity theorists who used the MIT pen perceived themselves to be more intelligent, harder working, and more of a leader (traits associated with MIT) than entity theorists who used the regular pen. Among incremental theorists, the type of pen used did not affect self-perceptions on these traits.

### Brand Pretests

The MIT brand was evaluated using the measures described in study 1. MBA students ( $n = 23$ ) were asked to select five personality traits (from a set of 42 traits) they strongly associate with MIT. Four personality traits were mentioned most frequently as strongly associated with this brand: intelligent (95.7% of respondents), technical (73.9% of respondents), hardworking (69.6% of respondents), and leader (65.2% of respondents). The remaining 38 traits were mentioned by less than 50% of respondents. Students were also asked how interested (0–100 scale) they would be in an opportunity to enhance themselves on the set of 42 traits, with results showing students to be very interested in enhancing the traits associated with MIT, including intelligent ( $M = 80.35$ ), leader ( $M = 78.00$ ), hardworking ( $M = 72.30$ ), and technical ( $M = 59.17$ ; mean for all traits = 46.14). Ratings for entity and incremental theorists were similar (all  $p > .35$ ); however, females registered less interest than males for the technical trait ( $M = 29.17$  vs. 69.76). Thus, we used the remaining three personality traits highly associated with MIT (intelligent, hardworking, leader) to measure self-perceptions in the main study.

We conducted an additional pretest to ensure that MIT was an appealing brand for our student population. We asked a sample of MBA students ( $n = 43$ ) how much they admired students from their university and several other universities (including MIT) on a scale from  $-50$  to  $+50$  (to capture negative and positive perceptions). Results confirmed that students admired MIT more than their own university ( $M = 80.19$  vs.  $69.14$ ,  $t(42) = 4.44$ ,  $p < .001$ ), with no differences between entity and incremental theorists on these ratings (all  $p > .25$ ).

## Sample and Procedure

Seventy-four MBA students were recruited from two marketing classes: 39 students participated in the MIT brand experience condition during one term, and 35 students from another class participated in the no MIT brand experience condition in another term. Participants were told that the university bookstore was going to revamp its selection of pens and was asking for help in evaluating which pens people like most. They were given a survey consisting of several pages of filler questions about opinions and activities. Embedded in the survey were items measuring self-perceptions of personality traits; these were followed by an implicit self-theory measure.

Next, in the MIT brand experience condition, participants were given an opportunity to select an attractive pen engraved with the MIT name from a set of three pens, which included two plain plastic pens from less prestigious universities. In the no MIT brand experience condition, participants selected a plain plastic pen from three options (two different Pilot pens and one Uni-Ball pen). Participants were instructed to use their pens for the next 6 weeks, and they were reminded each week to use the pen and to ask for a replacement if the pen had stopped working or was lost. Six weeks later, participants filled out a second survey, which included filler questions along with the following measures: evaluation of the MIT pen, usage of the MIT pen, and self-perceptions of personality traits. Students were then thanked, debriefed, and allowed to keep the pen as a reward for participation in the study.

## Measures

**Self-Perceptions.** Participants were asked how well several personality traits described them on a 1 (not at all like me) to 7 (very much like me) scale. Included in the list were the three focal personality traits associated with MIT (intelligent, hardworking, and leader); these were embedded among other personality traits not related to MIT in our pretest (cheerful, confident, trendy, successful, good-looking, rugged). Ratings for the three focal personality traits were averaged ( $\alpha = .87$ ). Self-perceptions were measured before pen usage (used as a control measure in analyses) and after pen usage (the key dependent variable in analyses).

**Implicit Self-Theory.** As in study 1, responses to the eight items in the Implicit Persons Theory Measure (Levy et al. 1998) were combined into a scale ( $\alpha = .96$ ).

**Pen Evaluation.** After using their pen, participants evaluated the pen on several attributes ("nice design" and "comfortable grip") on a scale from 1 (not at all) to 7 (very much). Responses to these two items were combined ( $\alpha = .83$ ). We included this evaluation as a control measure in the main analysis to account for unpleasant experiences in using the pens, such as poor design (pen does not retract) or writing discomfort.

**Pen Usage.** We also asked participants how often they used the MIT pen during the 6-week time period to detect differences in usage patterns between entity and incremental theorists. Participants indicated how often they used the pen on a 1 (never) to 6 (very frequently) scale.

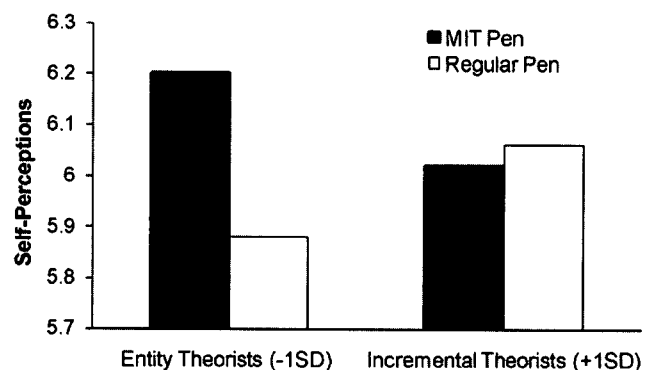
## Results

We conducted a multiple regression analysis to test our predictions. The analysis included self-perceptions after using the pen as the dependent measure, with implicit self-theory (continuous variable), experimental condition (MIT brand experience = 0, no MIT brand experience = 1), and the interaction between implicit self-theory and experimental condition as independent variables. Per study 1, scores for the implicit self-theory measure were centered by subtracting the mean from each person's score. Self-perceptions prior to pen use and pen evaluation were included as control variables. Five participants who did not select the MIT pen in the brand experience condition were not included in the analysis.

Support for our prediction was expected to emerge in the form of an interaction between implicit self-theory and experimental condition. As expected, the interaction was significant ( $\beta = .16$ ,  $t(63) = 2.33$ ,  $p < .05$ ), even after controlling for pen evaluation ( $\beta = .10$ ,  $t(63) = 3.37$ ,  $p < .01$ ) and preexisting self-perceptions ( $\beta = .90$ ,  $t(63) = 14.21$ ,  $p < .01$ ). This effect is illustrated in figure 2, which is plotted at one standard deviation below the mean ( $-1SD$ : entity theorists) and one standard deviation above the mean ( $+1SD$ : incremental theorists) of the implicit self-theory measure by

FIGURE 2

STUDY 2: SELF-PERCEPTIONS FOR PERSONALITY TRAITS ASSOCIATED WITH MIT



substituting these values into the regression equation (Cohen and Cohen 1983). To explore this interaction, we tested simple slopes at values one standard deviation above and below the mean of implicit self-theory (Aiken and West 1991; Cohen and Cohen 1983). Simple slope tests revealed a significant negative relationship between experimental condition (MIT brand experience = 0, no MIT brand experience = 1) and self-perceptions after using the MIT pen for entity theorists ( $-1SD$ ;  $\beta = -.33$ ,  $t(63) = 2.96$ ,  $p < .01$ ), but not for incremental theorists ( $+1SD$ ;  $\beta = .05$ ,  $t(63) < 1$ , NS). Entity theorists perceived themselves as more intelligent, more of a leader, and harder working after using the MIT pen than after using the regular pen. Incremental theorists were not affected by the pen they used.

*Supplementary Analyses.* We conducted additional analysis to clarify the nature of our findings. First, we examined whether frequency of using the MIT pen contributed to our findings. Although participants were reminded each week to use their pens, perhaps entity theorists used their MIT pen more frequently, which affected changes in self-perceptions. To test this possibility, we used the regression model described above and substituted frequency of pen usage as the dependent variable. The results indicate that pen usage was not a factor, with main effects (implicit self-theory or experimental condition) and the implicit self-theory  $\times$  experimental condition interaction failing to reach significance (all  $p > .25$ ).

Second, we examined whether using the MIT pen led to more positive self-perceptions for personality traits not associated with MIT. Per study 1, we conducted a multiple regression analysis with the nonfocal personality traits in the survey (e.g., trendy, cheerful). As expected, none of the main effects (implicit self-theory, experimental condition) or interactions (implicit self-theory  $\times$  experimental condition) reached significance for the nonfocal traits (all  $p > .20$ ).

## Discussion

Our findings replicate results from the Victoria's Secret study with a different brand, different personality traits, and a different brand experience. Entity theorists, but not incremental theorists, perceived themselves more positively on traits associated with MIT's brand personality (intelligent, leader, and hardworking) after using an MIT pen.

In the next study, we extend these findings. First, we examine the underlying rationale for why entity theorists, but not incremental theorists, have more positive self-perceptions after using a brand with an appealing personality. Earlier, we reasoned that entity theorists, who seek opportunities to signal positive qualities to the self or others, will be more responsive to the signaling value of a brand experience. To test this reasoning, we measure the extent to which entity and incremental theorists use the brand as a signaling device and examine whether it mediates the relationship between implicit self-theory and self-perceptions after brand use.

Second, we provide further evidence for the role that implicit self-theories play. In the first two studies, beliefs in

entity theory versus incremental theory were measured as an individual difference variable, consistent with prior research. However, it is possible that individuals who endorse entity or incremental theories may also vary on other dimensions, such as brand knowledge or usage. In study 3, we rule out the possibility that our prior findings are driven by extraneous factors by directly manipulating beliefs in entity versus incremental theory.

Third, we examine an alternative mechanism for our results. One might argue that relative to incremental theorists, entity theorists are more likely to experience discrepancies between their existing self-images and appealing images associated with brands, producing feelings of psychological discomfort (anxiety) that they attempt to alleviate by changing their self-perceptions in a positive direction (Rhodewalt and Agustodottir 1986). In study 3, we rule out this possibility by measuring psychological discomfort (anxiety) associated with using the brand and show that it does not explain differences in self-perceptions between entity and incremental theorists.

## STUDY 3

Female students used a Victoria's Secret shopping bag (brand experience) or a plain pink shopping bag (no brand experience) to collect items during a treasure hunt. This task simulated a shopping experience without the heightened salience of brands and other shoppers in a mall. Belief in entity theory versus incremental theory was manipulated prior to the treasure hunt. Only entity theorists were affected by carrying the Victoria's Secret shopping bag, perceiving themselves as more feminine, glamorous, and good-looking. Further, entity theorists were more likely to view the brand experience as an opportunity to signal the self, which mediated the relationship between implicit self-theory and self-perceptions after using the Victoria's Secret bag.

### Brand Pretests

The Victoria's Secret brand was pretested with female undergraduate students ( $n = 23$ ), and results indicated that they strongly associated this brand with the following traits: glamorous, feminine, and good-looking (95.7%, 73.9%, 65.2% of respondents, respectively). And they were very interested in enhancing the self on these same traits: glamorous ( $M = 65.00$ ), feminine ( $M = 62.17$ ), and good-looking ( $M = 76.74$ ; mean for all traits = 54.09). Further, there was no association between implicit self-theory and ratings for these traits (all  $p > .30$ ).

### Procedure

Eighty-four female undergraduate students participated in a 2 (implicit self-theory manipulation: entity, incremental)  $\times$  2 (brand experience: brand experience, no brand experience) between-subjects design. As a cover story, participants were told that they were going to participate in several different studies,

so as to reduce suspicion that measures and procedures administered at different points in time were related to each other.

First, participants completed a survey, with questions regarding self-perceptions of personality traits embedded among several filler questions. A second survey was then administered, which contained the implicit self-theory manipulation (described below). Next, participants were given instructions for the treasure hunt and were asked to select a shopping bag to collect items. In the brand experience condition, respondents selected a Victoria's Secret shopping bag or a less appealing bag. In the no brand experience condition, participants selected an attractive pink shopping bag or the less appealing bag. They were then given 20 minutes to find a list of items that had been hidden on the top floors of the business school building, which were quiet floors with little traffic. After completing this task, participants were given a brief survey, which included a measure of psychological discomfort. By collecting the measure at this time, we avoided the possibility that it would influence other measures (such as self-perceptions) at the end of the study. Participants were then given 15 minutes to find a second list of items, and after completing this task, they filled out a survey including an evaluation of the shopping bag, the self-perception measure, and the brand signaling measure (separated by filler questions).

Finally, participants were debriefed using a funneled questionnaire protocol (Bargh and Chartrand 2000; Chartrand and Bargh 1996). They were asked questions about (1) what they thought the point of the experiment was; and (2) whether one part of the experiment was connected with another part. Participants were also asked to guess how the treasure hunt might have been related to other studies. None of the participants indicated any awareness or suspicion that the treasure hunt was related to the other studies, which manipulated implicit self-theory and measured their self-perceptions. Finally, participants were debriefed, thanked, and paid \$15 for their participation. In total, the study took approximately 60 minutes to complete.

### Implicit Self-Theory Manipulation

Following Chiu et al. (1997), implicit self-theories were manipulated by having participants read an article presenting views consistent with entity theory or incremental theory. Although individuals are predisposed to one of these theories, they can be persuaded to adopt a particular mind-set by communicating relevant information (Chiu et al. 1997). To introduce the article, participants were told that we were interested in their opinions about the articles (Chiu et al. 1997). In addition, we asked participants to underline the three most important sentences in the article that supported the author's viewpoint. Below is a sample from each article:

In his talk at the American Psychological Association's annual convention held at Washington D.C. in August, Dr. George Medin argued that "in most of us, by the age of ten, our character has set like plaster and will never soften again." He reported numerous large longitudinal studies showing that

people "age and develop, but they do so on the foundation of enduring dispositions." (Entity theory)

In his talk at the American Psychological Association's annual convention held at Washington D.C. in August, Dr. George Medin argued that "no one's character is as 'hard as a rock' so that it cannot be changed. Only for some, greater effort and determination are needed to effect changes." He reported numerous large longitudinal studies showing that people can mature and change their character. He also reported research findings showing that people's personality characteristics can change, even in their late sixties. (Incremental theory)

We pretested this manipulation by asking female undergraduate students to read the entity theory article ( $n = 62$ ) or the incremental theory article ( $n = 57$ ). They were asked for their impressions of the articles on 7-point scales to ensure that the articles were equally credible, persuasive, useful, clear, and easy to understand. Responses to these items were summed ( $\alpha = .74$ ), and, as expected, this measure did not differ by condition ( $M_{\text{entity}} = 4.8$  vs.  $M_{\text{incremental}} = 4.9$ ,  $t(1, 117) = .59$ , NS). Second, to determine if the articles induced the appropriate mind-set, participants were asked to make several predictions about a person's behavior in a particular situation. They were given a probability scale (.00–1.00) to register their predictions for several questions such as, "Sandra is more helpful than Molly on average. What do you suppose is the probability that Sandra would act more helpfully than Molly in a particular situation?" Responses to five questions similar to this one were combined ( $\alpha = .77$ ). Chiu et al. (1997) found that, relative to incremental theorists, entity theorists make stronger behavioral predictions because they are more likely to believe that behavior can be predicted from a person's traits. Thus, if our manipulation was successful, those reading the article advocating entity (incremental) theory should make stronger (weaker) behavioral predictions from the trait information. This result was confirmed in our data ( $M_{\text{entity}} = .80$  vs.  $M_{\text{incremental}} = .74$ ;  $t(1, 117) = 2.14$ ,  $p < .05$ ), indicating that the manipulation of implicit self-theory was successful in creating the intended mind-set.

### Measures

*Self-Perceptions.* Participants were asked how well the three traits associated with Victoria's Secret described them on a 1 (not at all like me) to 7 (very much like me) scale, and ratings for these traits were averaged ( $\alpha = .77$ ). Self-perceptions were measured prior to the shopping bag experience (used as a covariate in our analyses) and after the shopping bag experience (the key dependent variable in our analyses). As before, the focal personality traits were embedded in a larger set of traits unrelated to Victoria's Secret in our pretest (pre-experience measure: sincere, rugged, confident, family-oriented, exciting, technical, masculine; post-



experience measure: original, independent, western, rugged, sincere, exciting, confident).

**Psychological Discomfort.** After completing the first treasure hunt, participants were shown a list of emotions, including measures of discomfort (uneasy, uncomfortable, bothered), and they were asked how they were feeling "right now" on a 1 (not at all) to 7 (very much) scale (Elliot and Devine 1994). Responses to these three items were combined ( $\alpha = .86$ ).

**Shopping Bag Evaluation.** After completing the second treasure hunt, participants evaluated the shopping bag they carried on several attributes (easy to carry, comfortable handles) on a 1 (not at all) to 7 (very much) scale. Responses to these two items were averaged ( $\alpha = .77$ ).

**Brand Signaling.** Finally, participants in the brand experience condition were asked to respond from 0 (strongly disagree) to 100 (strongly agree) to statements indicative of using the brand as a signal of one's self: "I use the brand, Victoria's Secret, to reflect on who I am," "I use the brand, Victoria's Secret, to communicate who I am to other people," "I use the brand, Victoria's Secret, to feel more positive about myself," and "I use the brand, Victoria's Secret, to make a better impression on other people." Responses to these items were averaged ( $\alpha = .94$ ).

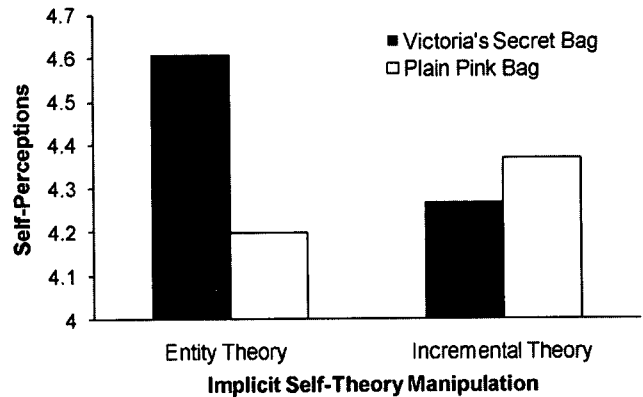
## Results

**Self-Perceptions.** We performed a 2 (implicit self-theory manipulation: entity, incremental)  $\times$  2 (brand experience: brand experience, no brand experience) ANCOVA on self-perceptions measured after using the shopping bag, with shopping bag evaluations and self-perceptions prior to bag usage as covariates. Two participants in the brand experience condition who did not select the Victoria's Secret shopping bag were deleted from this and subsequent analyses. The results revealed a significant interaction between implicit self-theory and brand experience condition ( $F(1, 76) = 4.82, p < .05$ ), even after controlling for bag evaluation ( $F(1, 76) = 4.82, p < .05$ ) and preexisting self-perceptions ( $F(1, 76) = 233.82, p < .01$ ). This effect is illustrated in figure 3. Planned comparisons revealed that participants in the entity theory condition perceived themselves as better looking, more feminine, and more glamorous after using the Victoria's Secret bag than after using the plain pink bag ( $F(1, 76) = 4.15, p < .05$ ). However, participants in the incremental theory condition were not affected by the brand of shopping bag they used ( $F(1, 76) = 1.11, p > .25$ ). These results, obtained using a manipulation of implicit self-theory, replicate findings from the first two studies that measured implicit self-theory as an individual difference variable.

**Brand Signaling.** A mediation analysis was conducted to test whether using the Victoria's Secret brand as a signal mediated the influence of implicit self-theory on self-perceptions. Recall that only participants who used the Victoria's

FIGURE 3

STUDY 3: SELF-PERCEPTIONS FOR PERSONALITY TRAITS ASSOCIATED WITH VICTORIA'S SECRET



Secret shopping bag were asked about how much they used Victoria's Secret as a self-signal. Following Baron and Kenny (1986), we performed a series of regression analyses, with shopping bag evaluation and self-perceptions prior to bag usage included as control variables. First, we found that implicit self-theory (entity = 0; incremental = 1) predicts self-perceptions after using the Victoria's Secret bag ( $\beta = -.39, t(40) = 2.12, p < .05$ ). Second, we found that implicit self-theory predicts brand signaling ( $\beta = -20.98, t(40) = 2.70, p < .05$ ). Finally, when implicit self-theory and brand signaling were regressed on self-perceptions after using the Victoria's Secret bag, the effect of brand signaling remains significant ( $\beta = 0.01, t(39) = 3.06, p < .01$ ), while implicit self-theory drops to nonsignificance ( $\beta = -.17, t(39) < 1, NS$ ). Thus, as expected, brand signaling mediates the effect of implicit self-theory on self-perceptions of personality traits associated with Victoria's Secret. Further, Sobel's Z confirmed that using the brand as a self-signal was a significant mediator ( $Z = 2.02, p < .05$ ).

**Psychological Discomfort.** We examined whether using a Victoria's Secret shopping bag triggered more negative feelings for participants in the entity (vs. incremental) theory condition. To do so, we performed a 2 (implicit self-theory manipulation: entity, incremental)  $\times$  2 (brand experience: brand experience, no brand experience) ANCOVA on psychological discomfort, with shopping bag evaluations and self-perceptions prior to bag usage as covariates. The results revealed no significant main effects (implicit self-theory manipulation:  $F(1, 76) < 1, NS$ ; brand experience:  $F(1, 76) < 1, NS$ ) and no significant interaction effect between implicit self-theory and brand experience ( $F(1, 76) < 1, NS$ ). These results show that, compared to incremental theorists, entity theorists did not feel more psychological discomfort while using the Victoria's Secret bag (vs. plain pink shopping bag). This rules out an alternative explanation that entity (vs. incremental) theorists report more positive self-perceptions after

using a brand to reduce psychological discomfort (anxiety) experienced after using a brand with an appealing personality.

## Discussion

We replicate findings from prior studies using a manipulation of implicit self-theory. Participants who read an article promoting entity theory perceived themselves to be better-looking, more feminine, and more glamorous after using a Victoria's Secret shopping bag than after using a plain shopping bag. Conversely, participants who read an article promoting incremental theory were not influenced by using the bag they used. Further, our results show that these differences are mediated by the disposition of entity theorists to view brand experiences as an opportunity to signal the self. Entity theorists use the Victoria's Secret brand as a signaling device, which precipitates more positive self-perceptions in line with the brand's personality.

In the next study, we pursue additional support for this line of reasoning by manipulating the motivation to self-enhance. We introduce a threat to students' perceptions of themselves in the competence domain (intelligent, hardworking, leader) and provide an opportunity to use an MIT pen as a way they can signal positive qualities and recover their sense of self. If our reasoning is correct, entity theorists should welcome the opportunity to signal the self by using the MIT pen, resulting in self-perceptions more in line with MIT's brand personality (intelligent, hardworking, leader). Thus, we predict that, faced with a self-threat, entity theorists can recover a threatened self through a brand associated with an appealing personality related to the domain of the threat. Incremental theorists, in contrast, should not be affected by using the MIT pen.

We also add to our findings by examining brand experiences in a more private setting. In the first two studies, brand experiences took place in a public shopping mall (study 1) and in consumers' daily lives (study 2). In study 3, brand experiences took place in a less public setting. In study 4, we move the context to a private setting and examine whether entity theorists respond to the signaling value of brands with appealing personalities when they experience brands privately. Entity theorists embrace opportunities to signal their positive qualities to the self or others, and therefore, we expect brand experiences to be consequential for entity theorists, regardless of whether the signaling takes place in public or private settings.

## STUDY 4

Undergraduate students solved a set of math problems and received negative feedback on their performance (self-threat). They were then given an opportunity to use an MIT pen or a regular pen for a subsequent task. Only entity theorists were affected by using the MIT pen, perceiving themselves as to be more intelligent, harder working, and more of a leader (traits associated with MIT). In fact, their self-perceptions after using the MIT pen were as positive

as those of a control group. Incremental theorists were unaffected by using the MIT pen.

## Brand Pretests

Undergraduate students ( $n = 44$ ) selected the following traits as strongly associated with the MIT brand: technical, intelligent, leader, and hardworking (81.8%, 75%, 63.6%, and 63.6% of respondents, respectively). Further, students were very interested in enhancing the self on three of these traits: intelligent ( $M = 81.45$ ), leader ( $M = 74.64$ ), and hardworking ( $M = 77.02$ ; mean for all 42 traits = 54.90). There was no difference between entity and incremental theorists on ratings of these traits ( $p > .20$ ). Thus, we used three personality traits highly associated with MIT (intelligent, hardworking, leader) to measure self-perceptions in the main study.

We conducted an additional pretest to ensure that MIT was an appealing brand by asking undergraduates ( $n = 158$ ) how much they admired students from their university and several other universities (including MIT) on a scale from  $-50$  to  $+50$  (to capture negative and positive perceptions). Results confirmed that students admired MIT more than their own university ( $M = 76.36$  vs.  $M = 69.63$ ,  $t(157) = 3.29$ ,  $p < .01$ ), and there were no differences between entity and incremental theorists on these ratings ( $p > .20$ ).

## Sample and Procedure

One hundred and fifty-seven undergraduate students from the University of Minnesota were assigned to one of the three conditions: (1) MIT brand experience after self-threat ( $n = 57$ ); (2) no MIT brand experience after self-threat ( $n = 55$ ); and (3) control group ( $n = 45$ ). Participants were seated in individual cubicles with dividers for privacy. To mask the connection between the self-threat and brand experience conditions, participants were told that they would participate in several studies. The first study required filling out a survey about their opinions and activities, including a measure of implicit self-theory that was embedded among filler items.

For the second study, participants in the self-threat conditions were told that the university was interested in the readiness of undergraduate students for graduate work. To assess their readiness, participants were asked to complete seven GRE math questions, administered on a computer one question every minute. After this task, participants were told: "You had 2 correct answers out of 7 questions. You are in the lowest 30% of college students who took this test" (for a similar manipulation, see Lowery, Knowles, and Unzueta [2007]).

Next, all respondents completed a third study, which was a survey that included a self-perception measure that was embedded among other items. Then participants were told that the university bookstore was revamping its selection of pens and was asking for help in evaluating different pens. In the MIT brand experience condition, participants were allowed to select a pen engraved with the MIT name or a

plain plastic pen (Uni-Ball brand). In the no MIT brand experience condition and control condition, participants were allowed to select a plain plastic pen from two options (Pilot, Uni-Ball). Students were asked to complete several tasks, such as copying line figures and circling vowels in paragraphs, to use the pen. These tasks were unrelated to math ability, which was the focus of the feedback students had received earlier. Afterward, they filled out another survey, which included self-perceptions and a pen evaluation. Finally, participants were debriefed, thanked, and paid \$10 for their participation. In total, the study took approximately 30 minutes to complete.

## Measures

*Self-Perceptions.* Participants were asked how well the three personality traits associated with MIT (intelligent, hardworking, leader) described them on a 1 (not at all like me) to 7 (very much like me) scale, and ratings for these traits were averaged ( $\alpha = .76$ ). Self-perceptions were measured before pen usage (used as a check for self-threat manipulation) and after pen usage (the key dependent variable in analyses). As before, the focal personality traits were embedded in a larger set of traits unrelated to MIT in our pretest (before pen use measure: creative, upper-class, confident, rugged, exciting, sincere; after pen use measure: sincere, rugged, successful, confident, exciting, upper-class).

*Implicit Self-Theory.* Responses to the eight items in the Implicit Persons Theory Measure (Levy et al. 1998) were combined into a scale ( $\alpha = .93$ ).

*Pen Evaluation.* Pens were evaluated on two attributes (nice design and comfortable grip) on a scale from 1 (not at all) to 7 (very much). Responses to these items were combined ( $\alpha = .87$ ).

*Brand Signaling.* Finally, we asked participants who used the MIT pen to respond from 0 (strongly disagree) to 100 (strongly agree) to two statements reflecting whether they used the brand as a signal of their identity: "I use the MIT pen to feel more positive about myself"; "I use the MIT pen to reflect on who I am." Responses to these items, which are most relevant to signaling in the private context of the study, were combined ( $\alpha = .96$ ).

*Debriefing Question.* Per study 3, participants answered questions about (1) what they thought the point of the experiment was and (2) whether they thought one part of the experiment (e.g., GRE math test) was related to other parts (e.g., surveys). None of the participants indicated awareness or suspicion of a connection between the GRE math test and other measures.

## Results

*Preliminary Analyses.* Prior to this and also subsequent analyses, four participants in the MIT brand experience condition were removed because they did not select the MIT

pen. First, we checked the adequacy of the self-threat manipulation, comparing self-perceptions measured right after participants received negative feedback in the self-threat condition to self-perceptions in the control condition. We conducted a multiple regression analysis with self-perceptions (focal traits) as the dependent variable and self-threat condition (control = 0, self-threat = 1), implicit self-theory (continuous variable), and the interaction between self-threat condition and implicit self-theory as independent variables. Scores for the implicit self-theory measure were centered by subtracting the mean from each person's score. As expected, the main effect of the self-threat condition was significant ( $\beta = -.35$ ,  $t(149) = 2.38$ ,  $p < .05$ ), indicating the self-threat manipulation was successful. Also, entity and incremental theorists were equally affected by the self-threat manipulation, indicated by the absence of significant interaction effect between self-threat condition and implicit self-theory ( $\beta = -.01$ ,  $t(149) < 1$ , NS).

Second, we checked whether entity theorists were more likely to use the MIT pen as a signaling device in the face of self-threats than incremental theorists, consistent with our rationale. For participants who received negative feedback and used the MIT pen, we regressed the brand signaling measure onto implicit self-theory, with pen evaluation as a control variable. A significant negative relationship between implicit self-theory and brand signaling emerged ( $\beta = -6.56$ ,  $t(50) = 2.05$ ,  $p < .05$ ), as expected. Relative to incremental theorists, entity theorists were more likely to use the MIT pen as a self-signal.

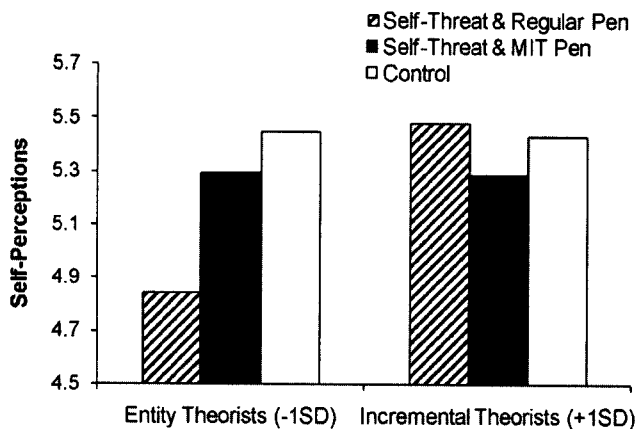
*Hypothesis Tests.* We conducted a multiple regression analysis with self-perceptions (after pen use) as the dependent measure and implicit self-theory (continuous variable), experimental conditions (two dummy variables to represent the three conditions), and interactions between implicit self-theory and experimental conditions as the independent variables. As before, scores for the implicit self-theory measure were centered by subtracting the mean from each person's score. Pen evaluation was included as a control variable.

As predicted, there was a significant interaction between implicit self-theory and the first dummy variable (self-threat and MIT brand experience = 0, self-threat and no MIT brand experience = 1;  $\beta = .31$ ,  $t(146) = 2.1$ ,  $p < .05$ ). On the other hand, there was no significant interaction between implicit self-theory and the second dummy variable (self-threat and MIT brand experience = 0, control condition = 1;  $\beta = -.01$ ,  $t(146) < 1$ , NS). These results were obtained even after controlling for pen evaluation ( $\beta = .13$ ,  $t(146) = 2.11$ ,  $p < .05$ ). These effects are illustrated in figure 4. As before, we tested simple slopes at values one standard deviation above and below the mean of implicit self-theory to explore these interactions. To simplify presentation of results, we report the findings for entity and incremental theorists in separate sections below.

*Entity Theorists.* We predicted that, after receiving a self-threat, entity theorists would have more positive self-perceptions after using the MIT pen than after using a regular

FIGURE 4

STUDY 4: SELF-PERCEPTIONS FOR PERSONALITY TRAITS ASSOCIATED WITH MIT



pen. This prediction was supported by a significant negative relationship between the first dummy variable (self-threat and MIT brand experience = 0, self-threat and no MIT brand experience = 1) and self-perceptions after using a pen ( $\beta = -.45$ ,  $t(146) = 2.1$ ,  $p < .05$ ). Entity theorists who received a self-threat perceived themselves as more intelligent, more of a leader, and harder working after using the MIT pen than after using a regular pen. Further, there was no significant relationship between the dummy variable (self-threat and MIT brand experience = 0, control condition = 1) and self-perceptions after using a pen ( $\beta = .16$ ,  $t(146) < 1$ , NS), indicating that entity theorists who received a self-threat recovered their threatened self after using the MIT pen to the level of their counterparts in the control condition.

**Incremental Theorists.** As expected, we found that incremental theorists were not affected by the pen they used, as indicated by a nonsignificant relationship between the dummy variable (self-threat and MIT brand experience = 0, self-threat and no MIT brand experience = 1) and self-perceptions after using a pen ( $\beta = .20$ ,  $t(146) < 1$ , NS). Incremental theorists responded to the self-threat in the same manner regardless of which pen (MIT or regular pen) they used. How did they respond? Comparisons between these conditions and the control group indicate that incremental theorists recovered their threatened self after using a regular pen (self-threat and no brand experience = 0, control = 1;  $\beta = -.06$ ,  $t(146) < 1$ , NS) and an MIT pen (self-threat and MIT brand experience = 0, control = 1;  $\beta = .14$ ,  $t(146) < 1$ , NS). Thus, consistent with our prior studies, the signaling value of using a brand (MIT vs. regular brand) was not consequential for incremental theorists.

## Discussion

Faced with a self-threat, entity theorists used an MIT pen to recover their threatened self. Entity theorists who used

an MIT pen perceived themselves as more intelligent, hard-working, and a leader than entity theorists who used a regular pen. The MIT pen was used in a private setting and resulted in more positive self-perceptions, consistent with findings from prior studies where brand use took place in more public settings. Interestingly, we found that incremental theorists recovered their threatened self regardless of the pen they used. Although this finding was not a focus of our predictions, it supports the idea that incremental theorists have resources to deal with self-threats that are not available to entity theorists, who are pessimistic about self-improvement, which reduces the emotional and psychological resources to cope with negative self-views (Rhodewalt 1994; Robins and Pals 2002).

## GENERAL DISCUSSION

When consumers use brands with appealing personalities, does the brand's personality "rub off" on them? Our results show that brand personalities do rub off on some, but not all, consumers. Specifically, consumers with certain implicit beliefs about their personalities, entity theorists, were affected by their brand experiences, resulting in more positive perceptions of themselves on personality traits associated with the brands they used. For example, entity theorists perceived themselves as more good-looking, feminine, and glamorous after using a Victoria's Secret shopping bag (studies 1 and 3) and more intelligent, hardworking, and a leader after using an MIT pen (studies 2 and 4). In contrast, incremental theorists were not affected by these brand experiences. These findings hold regardless of whether the brand experience is short or more extended in nature, public or private, or with different brand personalities.

Our results also shed light on why entity theorists are more affected by their brand experiences than incremental theorists. We found that entity theorists were more likely to use their brand experience as an opportunity to signal the self (studies 3 and 4). Individuals who endorse entity theory view their personal qualities as something they cannot improve through their own direct efforts; instead, they seek out opportunities (such as brand experiences) to signal their positive qualities to the self or others. Conversely, individuals who endorse incremental theory view their personal qualities as something they can enhance through their own efforts at self-improvement, reducing the value of signaling opportunities through brands.

## Contributions to Brand Personality Research

Our findings contribute to understanding how consumers respond to brand personalities. Researchers have found that consumers who want to enhance their sense of self are attracted to brands with distinctive and appealing personalities (Escalas and Bettman 2003; Swaminathan et al. 2009). We extend these findings into the domain of actual brand experiences and examine how consumers develop more positive self-perceptions after using brands with appealing brand personalities. Although this link is suggested by qual-

itative analyses of consumer behavior (Belk 1988; Sirgy 1982; Solomon 1983), our research provides evidence that brand experiences lead to self-enhancement in a controlled experimental setting.

Second, our findings demonstrate that using brands with appealing brand personalities can have an impact on how consumers see themselves, even if the experiences are short-lived and limited in nature. Most of our studies involved short-term brand experiences that were restricted to the signaling value of the brand personality. For example, women in the Victoria's Secret studies (studies 1 and 3) only carried a bag with the Victoria's Secret brand name and did not use branded products such as lingerie or cosmetics that may have increased self-perceptions of being good-looking, feminine, or glamorous. Similarly, participants in the MIT studies (studies 2 and 4) used a pen with the MIT brand embossed on it, instead of being exposed to actual experiences with MIT classes, faculty, or students. Although more extended experiences with brands could lead to more enduring self-perceptions, our results attest to the powerful influence that brand personalities can have even in brief encounters.

Third, we introduce the idea that brand personalities are not experienced in a vacuum, but are filtered by the consumers' beliefs about their own personalities. Whether the signaling value of a brand's personality is consequential to how you feel about yourself is due, in large part, to your views about your own personality. If you feel that your personal qualities can be improved through your own efforts at learning and self-improvement, using a brand with an appealing personality is unlikely to be consequential if it only provides a signaling opportunity. If you feel that your personal qualities cannot be improved upon by your own efforts, using a brand with an appealing personality can serve as a powerful signal that you possess positive qualities. Thus, a consumer's implicit self-theory about his or her personality is an important determinant of how that consumer responds to brand personalities.

### Contributions to Implicit Self-Theory Research

Our findings also contribute to research on implicit self-theory, which focuses on how beliefs about the malleability of one's traits influence goals, cognition, affect, and behavioral patterns, especially in the face of challenges or failures. By examining implicit self-theories in the context of consumption behavior, we show that entity and incremental theories have much broader influence than the learning and performance settings typically studied by psychologists.

More importantly, we find that consumption behaviors can exert a positive influence when entity theorists are faced with failures and threats to their sense of self. The consistent finding in psychological research is that incremental theorists take positive steps to overcome their failures and remedy problems (Dweck 2000; Dweck and Leggett 1988), whereas entity theorists engage in defensive and helpless behaviors (Elliot and Dweck 1988; Rhodewalt 1994) and feel upset about failures (Robins and Pals 2002). Thus, it is believed that holding entity theory beliefs is detrimental

to recovering self-threats. Our findings suggest an entirely new range of behaviors open to entity theorists for coping with self-threats—using brands with personality traits that can be used to signal positive aspects of the self.

### Limitations and Future Research

Our findings suggest several directions for future research. First, one might examine whether the positive self-perceptions obtained after brand experiences are short-lived or can be permanent. Our research shows a positive shift in self-perceptions as a result of relatively short-term brand experiences, and therefore this effect may not be permanent. However, it is possible that multiple episodes of brand use over time will result in more lasting positive self-views. Prior research has suggested that multiple processes operate to maintain self-perceptions (Swann 1987). Thus, it may be possible that positive self-perceptions after a brand experience, however small or momentary they may be, could become more permanent as consumers accumulate repeated experiences with the brand.

Second, examining variables that may moderate our results would be important. Our set of studies includes different contexts, such as field/lab experiments and public/private brand experiences, but we do not explicitly examine moderating factors. A promising starting point would be to examine the moderating role of consumer brand knowledge, usage, or commitment. These factors may shape the brand experience in important ways, and they may moderate the response that entity and incremental theorists have to the signaling value of brand experiences. To examine these factors, a larger and more diverse set of respondents than those included in our studies would be necessary. The modest sample sizes we include in our studies do not allow for an examination of moderating factors. Further, with exception of study 1, which was conducted in a shopping mall, our studies involve the use of student participants, which may constrict the range of brand knowledge, usage, or commitment.

Third, one could examine when brand personalities influence the way incremental theorists perceive themselves. In this article, we focused on brand experiences where only the signaling value of the brand can be experienced, but other aspects of brand experiences may be very consequential for incremental theorists. Given that incremental theorists pursue opportunities for self-improvement to enhance their sense of self, they might be affected by brand experiences that provide a way to enhance their performance or to learn new skills. For example, they might perceive themselves as more good-looking, feminine, and glamorous if they were able to use Victoria's Secret cosmetics to improve the look of their skin. Or, they might feel more athletic after using Nike shoes that offer maximum comfort and cushioning, allowing one to run faster and further. Exploring brand experiences that provide effortful self-improvement opportunities will provide a complete picture of how brands influence consumers, not only entity theorists but also incremental theorists.

Finally, future research could incorporate different ways

to capture differences in self-perceptions between entity and incremental theorists. In our studies, we used paper and pencil measures that asked respondents to evaluate their self-perceptions on a set of personality traits before and after using (or not using) the brand. To reduce their salience, the focal personality traits were embedded in a list of personality traits, which were then embedded in several pages of additional survey materials. In study 2, the premeasures were even less salient as they were taken 6 weeks prior to the postmeasure. Our debriefing procedures did not detect any influence of the self-perception measurement. However, it would be interesting to incorporate new measures, such as reaction time measures, that would be even less prominent in the experimental procedure.

Pursuing these lines of inquiry could provide further insights into the role that lay theories of personality play in how consumers respond to brands. For example, because entity theorists are more responsive to the signaling value of brand personalities, they might be less forgiving of brands that are the subject of negative publicity, perhaps related to ethical scandals or poor-quality products. Recently, researchers have started to examine how implicit self-theories influence goal-directed behavior (Mukhopadhyay and Johar 2005), affect regulation (Labroo and Mukhopadhyay 2009), and brand extension evaluations (Yorkston et al. 2010). Bringing implicit self-theories more fully into consumer research will provide a new conceptual frame for understanding how consumer beliefs shape, and are shaped by, consumption experiences.

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