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The authors present the results of two studies that show how consumers' evaluations of an advertised product can be influenced by the compatibility or conflict between the regulatory goals (promotion or prevention) addressed by the product and prior advertising of related products. Participants across both studies were exposed sequentially to the advertising of two products (prime and target), and they demonstrated a regulatory goal fluency effect in their evaluations of the target brand. When the regulatory goal serviced by the target matched (conflicted with) the regulatory goal serviced by the prime, participants indicated higher (lower) purchase intent (Experiment 1) and more favorable evaluations of the target brand (Experiment 2). These effects were not accounted for by differences in participants' involvement or affective state across the conditions. Instead, mediation analyses show that participants' ease of processing the target advertisement underlies the effect of goal compatibility on brand evaluation.

Between Two Brands: A Goal Fluency Account of Brand Evaluation

In a typical commercial break, television viewers are exposed to advertising that promotes different products. For example, they may first see an advertisement for shampoo, followed by one for coffee, then one for insect repellent, and so on, until the programming resumes. Viewers usually do not see two advertisements for competing brands during the same commercial break, because advertisers often negotiate restrictions on the number of advertisements from competing brands appearing in close proximity to their own advertisements. Advertisers are less concerned about the effects of advertising of brands from other product categories on their products. However, recent research implies that advertisers' more relaxed attitudes regarding different categories' advertising may be unfounded. More specifically, it has been shown that prior exposures to advertisements in one product category (e.g., mayonnaise) may affect consumers' subsequent judgments of brands from a related category (e.g., ketchup; Lee and Labroo 2004). An explanation offered for these effects is that prior exposure to a brand enhances the accessibility of related products that are part of the consumer's network of associations in memory; that is, related products are primed when a brand is activated. A product that has become more accessible in memory through priming benefits from the positive valence of processing fluency and thus is evaluated more favorably by the consumer (e.g., Reber, Winkielman, and Schwarz 1998).

Recent research on goals and motivation suggests a second route by which prior exposure to the advertising of a different product can affect brand evaluation. It has been shown that people's evaluations of an advertised brand are more favorable when the frame of the message (i.e., gain versus loss) matches their higher-order self-regulatory goals than when the frame conflicts with these goals (e.g., Cesario, Grant, and Higgins 2004; Lee and Aaker 2004). To illustrate, an advertising message that emphasizes promotion concerns (e.g., fruit juice containing vitamin C, which is energizing) is more effective when it is presented in a gain frame that emphasizes a desirable outcome (e.g., "Get energized") than when it is presented in a loss frame that emphasizes an undesirable outcome (e.g., "Don't miss out on getting energized"). Conversely, a message that emphasizes prevention concerns (e.g., fruit juice containing antioxidant, which prevents cancer and unclogs arteries) is more effective when it emphasizes an undesirable outcome (e.g., "Don't miss out on preventing clogged arteries") than when it emphasizes a desirable outcome (e.g., "Prevent clogged arteries"; Lee and Aaker 2004). These findings, which demonstrate more favorable attitudes as a result of

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regulatory fit, are consistent with the value-from-fit hypothesis that Higgins and his colleagues propose (see, e.g., Cesario, Grant, and Higgins 2004; Higgins et al. 2003). More central to the current research, Lee and Aaker (2004) show that the regulatory fit effect on persuasion is mediated by processing fluency. Specifically, fit messages are easier to process than nonfit messages. That is, the regulatory goal emphasized in a message affects how easy (or difficult) it is to process the message, depending on whether the content of the message is compatible or conflicts with the regulatory goal, and fluent processing leads to more favorable evaluations. Extending these findings to advertising context effects suggests that the regulatory goal made salient in one advertisement can affect people's processing of a subsequent advertisement that emphasizes the same or a conflicting regulatory goal, which in turn influences their evaluations of the advertised product in the subsequent advertisement.

To the extent that goals can be made more accessible in memory by priming, prior exposure to advertising that activates a certain regulatory goal renders that particular goal more accessible. For example, an advertisement for a shampoo formulated to kill lice may activate a prevention goal in consumers. On encountering an advertisement for a related product that serves a similar regulatory goal, such as an advertisement for an insect repellent, consumers experience a facilitated ease of processing the insect repellent's prevention goal. In turn, this goal fluency experience leads to more favorable attitudes toward the product. In contrast, when consumers subsequently encounter an advertisement for a product that addresses a different regulatory goal, such as a hair conditioner for silky hair, the prevention goal that was activated previously interferes with consumers' processing of the conditioner's promotion goal. The goal conflict effect on processing fluency results in less favorable attitudes toward the product. Thus, prior activation of a brand with negative associations may not necessarily lead to less favorable attitudes toward a related product because of the negative valence of the associations (see Lee and Labroo 2004). Rather, the less favorable attitudes may be the result of a goal conflict effect; that is, when the goal activated by the prior advertisement conflicts with the goal serviced by the target advertisement, consumers' processing of the target is inhibited, leading to less positive evaluations. When the goal serviced by the related product matches the goal activated by advertising, consumers are likely to experience fluent processing of the related product and, in turn, respond to the target more favorably.

Previous research shows that processing fluency may be perceptual or conceptual in nature (e.g., Lee 2002) and that enhanced processing fluency of a brand leads to more favorable evaluations and greater probability of brand choice (Lee 2002; Lee and Labroo 2004). Perceptual fluency of a target brand is sensitive to changes in surface features and can be enhanced through prior exposures to the brand. Conversely, conceptual fluency is sensitive to elaboration but not to changes in surface features; thus, conceptual fluency can be enhanced through prior exposures to the brand as well as to a related brand (e.g., Lee and Labroo 2004). In the current research, we examine the effects of a third type of processing fluency—regulatory goal fluency—that can be enhanced or inhibited through prior exposure to a related brand.

THEORETICAL BACKGROUND

> Man is a goal seeking animal. His life only has meaning if he is reaching out and striving for his goals.
>
> —Aristotle

According to regulatory focus theory, people regulate their attitudes and behaviors to pursue ideals and aspirations and fulfill duties and obligations. Regulatory goals that govern the way that people pursue their lower-order consumption goals may be chronically accessible or made accessible in memory by priming. In this section, we first discuss how goals are represented in memory and how they can be activated to influence attitudes and behaviors. We then describe how brands are represented in memory, followed by a discussion on how brands and the goals they service may be primed or suppressed as a result of prior exposure to a related brand.

Mental Representation of Goals

It is believed that cognitive structures of goals are composed of mental representations of "desirable future states of affairs that one intends to achieve through action" (Kruglanski 1996, p. 600). Representations of goal structures include the goal, the context, and the actions and means associated with the goal. When goals become active, they can affect people's decision-making processes by guiding their perceptions and attention to information in the environment, influencing selective activation of constructs in memory, and directing their behaviors toward goal-relevant objects and tasks and away from goal-irrelevant objects and tasks (e.g., Biehal and Chakravarti 1982; Markman and Brendl 2000). For example, Ferguson and Bargh (2004) show that participants whose achievement goals are more accessible can identify achievement-related words faster and evaluate them as more positive than those whose achievement goals are not salient. They also find that thirsty consumers respond faster and demonstrate more positivity toward goal-relevant products, such as water, than those who are not thirsty.

Chartrand and Bargh (1996; see also Bargh and Chartrand 1999) posit that situational cues may automatically and nonconsciously activate goals and prime actions and that automatic goals operate similarly to conscious or deliberative goals. They find that participants' recall of social information was greater when participants held a process goal of impression formation than when they held a memorization goal and that these results were observed when participants' process goals were implicitly activated as a result of subliminal priming, using words such as "evaluate" or "memorize."

Recent research shows that situational cues are not the only way that goals can be activated automatically; mental representations of significant others can also activate goals associated with them and, in turn, activate goal-directed behaviors. To illustrate, Fitzsimons and Bargh (2004) find that merely thinking of a relationship partner (e.g., mother) leads to the activation and pursuit of the relationship partner's goals (e.g., achievement). Goals have also been shown to be activated by the behaviors of another individual. For example, Aarts, Gollwitzer, and Hassin (2004) find that participants who read about someone working on a farm for

wages were more eager to earn money in the experimental session than those who read about someone volunteering in the community.

These findings showing that goals can be primed are consistent with the notion that goals are organized as cognitive structures in memory. The implication is that goals become more accessible when goal-related constructs are activated, which in turn affect subsequent judgments and behaviors.

Mental Representation of Brands

Cognitive structures of brands are closely linked to goal structures in memory. Mental representations of brands are multidimensional and are composed of different kinds of information (Keller 2003). The cognitive structure of a brand may include category knowledge (e.g., Zenith P60W38 is a brand of television), attribute information (e.g., it has a 60-inch plasma monitor), benefits of the brand (e.g., it is great for watching the Super Bowl), experiences consumers have (e.g., my neighbor just bought one), attitudes and feelings toward the brand (e.g., I really like the Zenith P60W38), and the goals and needs it satisfies (e.g., ownership of the television shows how technologically savvy I am). A brand's goal-based associations may include both higher- and lower-order goals (e.g., Aaker and Lee 2001; Huffman, Ratneshwar, and Mick 2000). Most consumption goals (e.g., I want to buy a television) are low-order goals, the pursuit of which is often guided by higher-order goals, such as self-regulatory goals. According to regulatory focus theory (Higgins 1997), people regulate their goal pursuit strategies on the basis of their regulatory focus. Promotion-focused people regulate their attitudes and behaviors toward the pursuit of advancement and growth (e.g., I would like to stand out in the crowd), whereas prevention-focused people regulate their attitudes and behaviors toward the pursuit of safety and security (e.g., I want to feel connected with my friends).

When a brand is activated, its semantic associations (e.g., product features, benefits) and goal structure become accessible in memory, and when a goal is activated, different products and brands that satisfy the goal may come to mind more easily. Thus, a brand should be easier to process when its goal structure has become more accessible through recent activation because some of its semantic associations, especially those related to goal-satisfying benefits, may have been primed. The implication is that when consumers are exposed to an advertisement, the goal structure of the advertised brand becomes activated and, in turn, facilitates (impairs) the processing of goal-compatible (goal-conflicting) brands they subsequently encounter.

Effects of Processing Fluency

Prior research suggests that people's attitudes toward a target become more favorable when they experience fluent processing of the target (e.g., Janiszewski 1993; Lee 2001; Reber, Winkielman, and Schwarz 1998; Zajonc 1968). In consumer research, processing fluency has been shown to have a positive effect on product evaluation (Lee and Labroo 2004; Shapiro 1999), consideration set membership (Nedungadi 1990), and brand choice (Lee 2002; Shapiro, MacInnis, and Heckler 1997).

Processing fluency may be perceptual or conceptual in nature (Lee 2002). A brand that is perceptually fluent is one that can be recognized and identified easily by consumers, and a brand that is conceptually fluent is one whose meaning and other associations (i.e., its knowledge structure) come to mind more readily. Perceptual fluency of a brand is sensitive to changes in the physical features of the product or the advertisement across different exposures, but it is not affected by elaboration. Thus, visual clarity of the exact image of the brand or the logo or packaging at the time of exposure is critical if brand choice is driven by perceptual fluency, as in most supermarket purchases. In contrast, conceptual fluency benefits from elaborative processing but is unaffected by changes in perceptual features across the different exposures. In fact, conceptual fluency of a brand can be enhanced even in the absence of prior exposure to the brand, as long as consumers are exposed to concepts related to the brand. For example, Lee and Labroo (2004) find that participants developed more favorable attitudes toward ketchup when they had been previously presented with an advertisement for ketchup (i.e., a classic perceptual fluency effect). Notably, participants also developed more favorable attitudes toward ketchup when they had been previously presented with an advertisement for mayonnaise (i.e., a conceptual fluency effect). These results are consistent with the notion that brands are represented in memory as associative networks; prior exposure to one product (e.g., mayonnaise) activates related products (e.g., ketchup) in the associative network, rendering the related products conceptually more fluent and, thus, preferred.

Note that a brand may become more fluent perceptually but not conceptually (Lee 2002; Lee and Labroo 2004). This is likely to happen when consumers are exposed to an advertisement but do not pay much attention to it. Conversely, a brand may become more fluent conceptually but not perceptually, as in situations in which a brand is primed by an advertisement of a related product so the brand would come to mind more readily while the salience of its perceptual features would remain unchanged. It is believed that fluent processing of a brand, whether it is the result of enhanced perceptual or conceptual fluency, is a positive experience that underlies consumers' more favorable attitudes toward the brand (Reber, Winkielman, and Schwarz 1998; Winkielman and Cacioppo 2001). In the current research, we extend the processing fluency effects to include a third type of processing fluency: the ease or difficulty of processing a brand as a result of goal compatibility or goal conflict with a related brand. Specifically, we argue that consumers will develop more favorable attitudes toward, for example, ketchup when they have been previously presented with an advertisement for mayonnaise if the goal addressed by ketchup is compatible with the goal addressed by mayonnaise (e.g., both address a promotion goal of achieving great taste). If the two goals conflict with each other (e.g., if one services a promotion goal of achieving great taste and the other services a prevention goal of limiting calories), consumers will develop less favorable attitudes toward ketchup.

The Regulatory Goal Fluency Hypothesis

Our view is that the ease of processing the goal that a brand services influences how consumers evaluate the brand. When a brand is primed through prior exposure to a related product, consumers will experience fluent process-

ing of the brand if the regulatory goal addressed by the brand matches (versus conflicts with) that addressed by the related product. This experience of fluent processing will result in more favorable attitudes toward the brand. However, consumers will experience inhibited processing of the brand if the regulatory goal addressed by the brand conflicts with that addressed by the related product, and the experience of inhibited processing will result in the brand being less preferred. Recent developments in regulatory focus research lend support to our regulatory goal fluency hypothesis. There is evidence that people are more persuaded when the intended benefits of a product match the regulatory goal of the message recipient (Aaker and Lee 2001). People also evaluate products more favorably when product information is presented in a frame that fits with their regulatory goal (e.g., Cesario, Grant, and Higgins 2004; Lee and Aaker 2004). Furthermore, Lee and Aaker (2004) show that recipients' perceived ease of processing the message mediates this regulatory goal match effect. That is, a message is easier to process when its frame matches than when it conflicts with the regulatory goal of the appeal; in turn, this regulatory goal-based ease of processing leads to more favorable attitudes.

We hypothesize that when the regulatory goal addressed by the target brand has been activated through recent exposure to a related product, the target becomes easier to process as a result of prior goal activation, which in turn leads to more favorable attitudes toward the target. Formally,

H_1: Participants evaluate a primed target brand more favorably when the regulatory goal serviced by the target brand is compatible with the goal serviced by the prime.

In contrast, when the regulatory goal serviced by the target conflicts with the goal serviced by the related product, the processing of the target's goal is inhibited. The notion that regulatory goal conflict between the prime and the target leads to inhibited processing of the target brand is consistent with findings that activation of multiple goals leads to suppression of interfering mental associations (Fishbach, Friedman, and Kruglanski 2003; Keller, Heckler, and Houston 1998; Shah, Friedman, and Kruglanski 2002; Shah and Kruglanski 2002). Thus, we expect that a goal conflict between the prime and the target brands inhibits processing of the target, which in turn leads to less favorable attitudes toward the target. Formally,

H_2: Participants evaluate a primed target brand less favorably when the regulatory goal serviced by the target brand conflicts with the goal serviced by the prime.

Next, we present the results of two experiments in support of the regulatory goal fluency hypothesis. Experiment 1 presents evidence showing that whereas goal compatibility between the prime and the target brand enhances brand evaluation, goal conflict between the two brands suppresses evaluation. Experiment 2 further examines the mechanism underlying the goal compatibility effect. Specifically, we designed Experiment 2 to investigate whether the mental representation of these higher-order goals reflects a hedonic goal structure (i.e., based on positive and negative valence) or a regulatory goal structure (i.e., based on promotion and prevention focus). We present evidence that the goal compatibility effect on evaluation is indeed driven by regulatory goal-based processing fluency.

EXPERIMENT 1

The objective of Experiment 1 is to examine the effect of goal compatibility and goal conflict between a prime brand and a target brand on participants' evaluations of the target brand. We first exposed participants to the advertisement of a brand that was either related or unrelated to two different targets. The regulatory goal serviced by the related prime was compatible with the goal serviced by one target but conflicted with the goal serviced by the other target. We hypothesized that participants would evaluate the goal-compatible target more positively and the goal-conflicting target more negatively when they had been previously exposed to the related prime than when they had been previously exposed to the unrelated prime. Thus, we used a 2 (prime: related versus unrelated) × 2 (target: compatible goal versus conflicting goal) mixed design in which prime was a between-participant factor and target was a within-participant factor.

Method

Stimuli development. We adapted the two priming advertisements from our previous work (see Lee and Labroo 2004, Study 4); one advertisement showed a product that was related to the target brands (Not Nice To Lice shampoo), and the other advertisement showed an unrelated product (Agnesi pasta). The related product advertisement makes salient a prevention goal (to get rid of hair lice), whereas the unrelated control advertisement does not make salient either a promotion or a prevention goal.

We selected two target brands such that the goal serviced by the related prime was compatible with the goal serviced by one target (Raid insect killer) but conflicted with that serviced by the other target (Nutriance hair conditioner). In a pretest, we asked 13 undergraduate students from the same subject pool as the main study to indicate on a seven-point scale (1 = "not at all related," 7 = "very closely related") how related the two target products (Raid and Nutriance) were to the related prime (Not Nice To Lice shampoo) and to the unrelated control (Agnesi pasta) product. The results showed that the participants perceived the related prime as more closely related to Nutriance (M = 5.08) and to Raid (M = 5.08) than to a filler product that served as a control (alkaline battery: M = 1.85; $F(2, 24) = 54.73$, $p < .001$). In addition, participants rated Agnesi pasta as being as unrelated to Nutriance (M = 1.38) and to Raid (M = 1.08) as it was to the filler product (M = 1.15; $F(2, 24) = 1.09$, $p > .30$). Participants also viewed Raid as being associated with a prevention goal (to get rid of ants and cockroaches) and, thus, as compatible with the goal serviced by the prime (to get rid of lice), whereas they viewed Nutriance as being associated with a promotion goal (to have beautiful hair) and, thus, in conflict with the goal serviced by the prime.

We selected a product that addresses a prevention goal rather than a promotion goal as the prime to provide a more rigorous test of our theory. With a promotion goal prime, a goal-compatible target (i.e., one that addresses a promotion goal that focuses on desirable outcomes) is likely to be associated with positive valence, in which case it will be

difficult to disentangle the goal compatibility effect as indicated by favorable attitudes toward the target from those that arise from conceptual fluency or positive associations. Similarly, it could be argued that less favorable attitudes toward the goal-conflicting target (i.e., one with a prevention goal that focuses on undesirable outcomes) may be the result of a contrast effect; that is, the target associated with negative valence becomes less appealing when it is compared with a prime associated with positive valence. In using a prevention goal prime, obtaining evidence in support of a goal compatibility effect means that more favorable evaluations are observed even when both the prime and the conceptually fluent target are associated with negative valence. It is also unlikely that less favorable attitudes toward the goal-conflicting target are the result of a contrast effect between a negatively valenced prime and a positively valenced target.

Procedure. Forty-four undergraduate students who were native English speakers participated in the study for course credit. When participants arrived at the lab, they were seated individually and were randomly assigned to one of the two prime conditions. They were told that the experimenter was interested in their opinions about certain products and advertising campaigns and that they would be asked to evaluate different advertisements or products in the answer booklet.

All participants went through an exposure phase and a test phase. During the exposure phase, we presented participants with a filler advertisement and then one of the two priming advertisements. Participants in the related prime condition were exposed to a mock-up advertisement that featured a bottle of Not Nice To Lice two-in-one shampoo with the tagline "Eliminates both lice and their eggs." Participants in the unrelated prime condition were exposed to a mock-up advertisement that featured a box of Agnesi pasta with the tagline "The finest quality pasta in the Italian tradition; 100% Durum wheat semolina."

We asked participants to evaluate the advertisements on liking (1 = "dislike, negative"; 7 = "like, positive") and its effect on their mood (1 = "puts me in a bad mood," 7 = "puts me in a good mood"). We also asked them to indicate how involved they were while reviewing the priming advertisement (1 = "skimmed it quickly, not at all involved"; 7 = "paid a lot of attention, very involved"). After participants completed this task, they were instructed that their next task was to consider different products and to indicate their purchase intent for each product using a seven-point scale (1 = "not likely to buy," 7 = "very likely to buy"). For this task, we presented them with the image of the product and the brand name. Participants first evaluated a filler product (an alkaline battery), followed by the goal-conflicting target (Nutriance) and the goal-compatible target (Raid). We counterbalanced the order of the two target brands across the participants. We also asked participants if they thought their evaluations of the products were influenced by the mock-up advertisements they saw previously. Finally, they responded to some miscellaneous questions, including demographic measures.

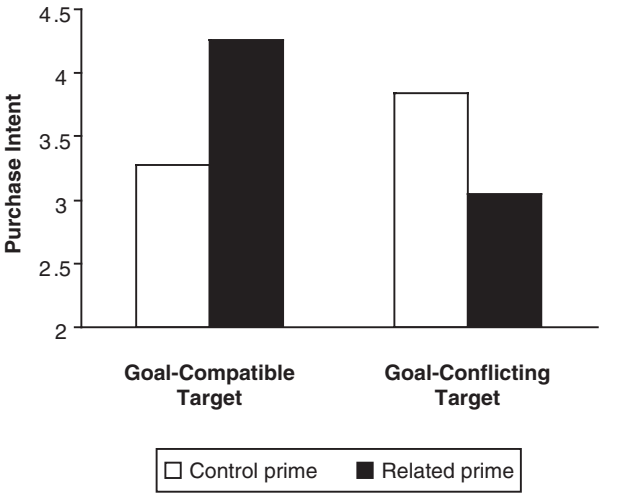
Results

Manipulation checks. We averaged the two items that measured participants' evaluations of the prime to form a prime advertisement attitude index (r = .92). The results of an analysis of variance (ANOVA) on the prime advertisement attitude index showed that participants did not evaluate the two primes differently ($M_{shampoo}$ = 3.92 versus M_{pasta} = 4.12; F < 1). The two advertisements also did not affect participants' mood states differently ($M_{shampoo}$ = 4.21 versus M_{pasta} = 4.24; F < 1). Finally, the result of an ANOVA on the involvement index (r = .80) showed that participants across the two conditions were equally involved while processing the priming advertisement ($M_{shampoo}$ = 3.63 versus M_{pasta} = 4.02; F < 1).

We conducted a one-way ANOVA to examine whether the priming manipulation had any effect on participants' purchase intent for a filler product (alkaline battery), which was neither conceptually fluent nor goal relevant compared with either of the two primes. The results showed that participants' purchase intent toward the filler product did not differ between the two priming conditions (M_{pasta} = 4.64 versus $M_{shampoo}$ = 5.00; F < 1), which allowed us to interpret the effects of goal compatibility versus conflict on participants' evaluations of the target brands with more confidence.

Hypotheses testing. We expected that participants would indicate a higher likelihood to purchase the goal-compatible target (Raid) after the exposure to the related prime (shampoo) than after the control prime (pasta), whereas they would indicate a lower likelihood to purchase the goal-conflicting target (Nutriance) after the exposure to the related prime than after the exposure to the control prime. The results of a 2 (prime) × 2 (target) repeated measures ANOVA with target as a within-participant factor showed that neither main effect was significant ($F_{prime} < 1$, $F_{target}(1, 42) = 1.10$, $p > .30$). However, the predicted interaction between prime and target was significant ($F(1, 42) = 8.20$, $p < .01$; see Figure 1). Planned contrasts showed that participants in the goal-compatible condition indicated higher

Figure 1
EXPERIMENT 1: PURCHASE INTENT AS A FUNCTION OF GOAL COMPATIBILITY AND CONFLICT



purchase intent for the target (Raid) when they had been primed by the related product (M = 4.26) than when they had been primed by the control (M = 3.28; t(42) = 2.24, $p < .05$).[1] Furthermore, participants in the goal-conflicting condition indicated lower purchase intent for the target (Nutriance) when they had been primed by the related product (M = 3.05) than when they had been primed by the control (M = 3.84; t(42) = 1.81, $p < .05$). None of the participants indicated that their evaluations of the target might have been influenced by the advertisement they saw previously.

Discussion

Experiment 1 indicates that goal compatibility between a prime and a target enhances participants' evaluations of the target, whereas goal conflict between a prime and a target depresses their evaluations of the target. Specifically, priming participants with Not Nice To Lice shampoo versus the unrelated, goal-irrelevant Agnesi pasta enhanced their purchase intent for the goal-compatible Raid insect killer but lowered their purchase intent for the goal-conflicting Nutriance hair conditioner. Furthermore, our results showed that participants' purchase intent toward the filler product (alkaline battery) was not affected by either prime that was unrelated to it. Taken together, these data suggest that participants' evaluations of a brand were not affected by unrelated products. The results are consistent with the regulatory goal fluency hypothesis.

Note that participants did not evaluate the two priming advertisements differently, and the two advertisements did not induce different mood states. Thus, participants' evaluations of the target brands across the two prime conditions could not be accounted for by a difference in mood. Furthermore, we pretested the two targets and determined that they were equally (un)related to the related (control) prime; thus, the enhanced evaluation of Raid and the devaluation of Nutriance could not be the result of a difference in the perceived relatedness between the targets and the prime.

These results extend previous findings on processing fluency to include the effect of goal fluency on evaluation. Prior exposure to an advertisement for one product (shampoo) affected participants' subsequent evaluations of two different products (insect killer and hair conditioner), both of which were conceptually related to the prime; however, the effects of the prime on the two targets were in the opposite direction. Whereas participants' preferences for the insect killer went up, their preferences for the hair conditioner went down. These results provide support for our hypothesis that goal compatibility enhances evaluation and goal conflict suppresses evaluation.

Experiment 1 also extends previous findings by showing that negative associations that are conceptually fluent do not always decrease evaluation toward a brand. In our previous research (see Lee and Labroo 2004, Experiment 4), we suggested that when fluent processing of a target is accompanied by negative associations in memory, evaluation of the target becomes less positive. Participants previously exposed to the lice-killing-shampoo advertisement indicated less favorable attitudes toward the hair conditioner than when they had been previously exposed to an unrelated product. In Experiment 1, we replicated those results using purchase intent as a dependent measure, but we also showed that participants' purchase intent for a goal-compatible product (insect killer) was enhanced by prior exposure to the lice-killing shampoo. Our results present an alternative explanation to our previous interpretation of the finding; that is, a less positive evaluation of a product primed by a brand associated with negative concepts is the result of goal conflict rather than negative valence.

Although the results of Experiment 1 are consistent with a goal fluency effect on attitudes, the data do not distinguish between two different cognitive goal structures underlying the results. That is, it is not clear whether the results reflect a cognitive structure of hedonic goals (i.e., approach versus avoidance goals) or of regulatory goals (i.e., promotion versus prevention focus). Much of previous research on goals and motivation is based on the hedonic principles of approaching desired outcomes (gains and nonlosses) and avoiding undesirable outcomes (losses and nongains; e.g., Atkinson 1964). More recently, regulatory focus theory has offered an alternative view to define approach and avoidance motivations within two self-regulatory tendencies (Higgins 1997). More specifically, promotion-focused people are sensitive to gains and nongains, and prevention-focused people are sensitive to losses and nonlosses. Thus, the results showing goal compatibility between two products that avoid losses (i.e., lice-killing shampoo and insect killer) and goal conflict between a product that avoids losses (lice-killing shampoo) and another that approaches gains (hair conditioner) are consistent with both a hedonic and a regulatory goal structure in memory. That is, we can account for the goal compatibility effect observed for the insect killer by a match between two avoidance goals or two prevention goals. Similarly, we can account for the goal conflict effect observed for the hair conditioner by a conflict between an approach and an avoidance goal or between a promotion and a prevention goal. Thus, one objective of Experiment 2 is to investigate the cognitive structure underlying these goal compatibility (conflict) effects.

Another limitation of Experiment 1 is that though the goal compatibility versus goal conflict effect is consistent with a fluency-based explanation, clear evidence for a processing fluency mechanism underlying the effects is lacking. We addressed this issue by collecting more direct measures of processing fluency in Experiment 2.

EXPERIMENT 2

Overview and Design

The objectives of Experiment 2 are twofold: First, we examine whether people's mental representations of goals conform to a hedonic or regulatory goal structure. Second, we further investigate the mechanism underlying the goal compatibility (conflict) effects.

To test whether the goal compatibility effects observed in Experiment 1 result from hedonic goal compatibility or from regulatory goal compatibility, we used a 2 (prime: gain versus loss) × 2 (target: nongain versus nonloss) design. If the goal compatibility effects are driven by a match between two hedonic goals, participants exposed to a gain prime (i.e., one that focuses on desirable outcomes) should evaluate the nonloss target (emphasizing desirable

[1]We use one-tailed tests in all planned contrasts.

outcomes) more favorably than the nongain target (emphasizing undesirable outcomes). Similarly, participants exposed to a loss prime (i.e., one that focuses on undesirable outcomes) should evaluate the nongain target (emphasizing undesirable outcomes) more favorably than the nonloss target (emphasizing desirable outcomes). That is, participants' evaluations would demonstrate compatibility versus conflict on the basis of valence. However, if the goal compatibility effects are driven by compatibility between regulatory goals, participants exposed to the gain prime (desirable outcomes) should prefer the nongain target (emphasizing undesirable outcomes) to the nonloss target (emphasizing desirable outcomes), and those exposed to the loss prime (undesirable outcomes) should prefer the nonloss target (emphasizing desirable outcomes) to the nongain target (emphasizing undesirable outcomes). That is, participants' evaluations would demonstrate compatibility versus conflict on the basis of regulatory focus. Thus, hedonic goal compatibility would be evidenced by a match between the gain (loss) prime and the nonloss (nongain) target, whereas regulatory goal compatibility would be evidenced by the match between the gain (loss) prime and the nongain (nonloss) target.

Similar to Experiment 1, all participants went through an exposure phase and a test phase. During the exposure phase, they viewed one of the two priming advertisements in the form of a storyboard that featured the advertised product in either a gain or a loss frame. In the test phase, they were asked to evaluate a target presented in either a nongain frame, emphasizing the absence of positives, or a nonloss frame, emphasizing the removal of negatives. Then, participants performed a word identification task on the computer designed to assess their ease of processing the goal-compatible or the goal-conflicting target advertisement.

Method

Stimulus development. To enhance external validity, we selected two products that were familiar to our participants, foot deodorizer and antiperspirant, as the prime and target products, respectively. Again, we selected products that tend to have negative associations to provide a more rigorous test of the goal compatibility effect. In a pretest, we asked 45 participants to rate how related the prime (foot deodorizer) was to the target (antiperspirant) and to a filler product (coffee) on a seven-point scale (1 = "not at all related," 7 = "very related"). The results of a repeated measures ANOVA showed that participants considered the prime more closely related to the target (M = 5.40) than to the filler (M = 1.38; $F(1, 44) = 215.02$, $p < .0001$), indicating that prior exposure to the prime may indeed make the target more accessible in memory.

To minimize the variance in the baseline evaluation of the product across the participants, we used relatively unfamiliar brand names for the prime (Foot Sense foot deodorizer) and the target (Maxim antiperspirant). We developed two versions of a mock-up advertisement in the form of a storyboard for the prime. Each storyboard consisted of four frames. The first three frames showed different pictures of a person's feet (bare, with socks being removed, and in sandals), and the final frame presented a picture of the advertised product (Foot Sense foot deodorizer). In the gain prime condition, the captions that appeared on the top of the three frames highlighted something positive: "Feeling fresh…," "Feeling confident…," and "Have happy feet…." In contrast, the three captions in the loss prime condition highlighted something negative: "Feeling humiliated…," "Odor a problem…," and "Have smelly feet.…" The images used in the two storyboards were identical.

We presented the target (Maxim antiperspirant) in an advertisement that featured a product shot, a picture of a woman with her arm raised, and a picture of a man loosening his tie. The tagline of the advertisement in the nonloss condition emphasized the desirable outcome of getting rid of something negative and read, "Freedom from embarrassment. Say goodbye to stickiness." In contrast, the tagline of the advertisement in the nongain condition emphasized the undesirable outcome of not having something positive and read, "Not feeling great? Lacking in hygiene and cleanliness?"

Procedure. Fifty-six undergraduate students, who were native English speakers, participated in the study for course credit. We randomly assigned them to one of the four conditions. Each participant was seated individually at a workstation in front of a computer. Participants were given the cover story that the experimenter was interested in their opinions about certain advertising campaigns and products and were instructed that they would be taking part in three different studies. The first two studies would be conducted using paper and pencil, and the last study would be conducted on the computer. Participants then were provided with an answer booklet that contained the storyboard prime and the target advertisement. They were instructed to let the experimenter know when they had completed the booklet, after which they began the computer task.

We asked all participants to review the information in the booklet carefully and to follow the instructions at their own pace. We asked them not to flip back to previous pages after they had turned the page. We presented them with the storyboard for the prime and asked them to evaluate the storyboard on liking (1 = "dislike, negative"; 7 = "like, positive") and its effect on their mood (1 = "depressed, bad"; 7 = "uplifted, good"). Participants also indicated how involved they were when processing the storyboard (1 = "not at all involved," 7 = "very involved"). These items were consistent with the cover story and served as an indicator of the extent of comprehensibility across the two different storyboards. Participants also completed some miscellaneous responses at this time.

We then instructed participants that their second task was to evaluate different products. All participants evaluated a filler product (coffee) followed by the target on a two-item, seven-point scale (1 = "dislike very much, very unfavorable"; 7 = "like very much, very favorable"). We also asked the participants to indicate how they processed the target advertisement on a three-item, seven-point scale (1 = "difficult to process, not at all eye-catching, not at all attractive"; 7 = "easy to process, very eye-catching, very attractive"). We intended the first item to assess processing fluency directly, whereas we included the second and third items as indirect measures that capture the effects of processing fluency (i.e., the more fluent the processing of the advertisement, the more eye-catching and attractive is the advertisement). Participants also indicated how related they thought foot deodorizer was to the filler product (coffee) and to the

target product (antiperspirant) on a seven-point scale (1 = "not at all related," 7 = "very related").

Finally, we presented all participants with a word identification task on the computer to assess their ease of processing the target. We instructed them that their task was to identify as many words as possible from a list of words. Each word would appear individually in the center of the screen and would be flashed very briefly, backmasked by a series of # signs. We asked them to type in the word they thought they saw, and if they could not see anything, we instructed them to guess what the word might be. After typing in the word, they were told to press the "Enter" key, and the next word would be presented. A total of 22 words (4 targets, 18 fillers) were presented at a rate of 50 milliseconds each, followed by a series of # signs until the participants hit the "Enter" key, and the next word would appear. Of the 4 target words, 2 were selected from the nongain target (sure, clean) and 2 were selected from the nonloss target (goodbye, free). The first five trials used filler words, and the 4 target words were randomly intermixed with the remaining 13 filler words that were conceptually unrelated to the target or to the prime. We expected that participants would more readily identify words from the goal-compatible target advertisement than from the goal-conflicting advertisement, demonstrating a goal fluency effect. After participants completed the word identification task, they were debriefed and thanked.

Results

Manipulation checks. We analyzed participants' relatedness ratings between the prime and the target and between the prime and the filler product using a repeated measures ANOVA. The results showed that participants perceived the prime (foot deodorizer) as being more related to the target (antiperspirant: M = 5.79) than to the control (coffee: M = 1.46; $F(1, 55) = 404.45$, $p < .001$).

We averaged the two items that measured participants' evaluations of the storyboards to form a prime advertisement attitude index (r = .77). The results of an ANOVA showed that participants did not evaluate the gain-framed storyboard (M = 4.30) differently from the loss-framed storyboard (M = 4.25; F < 1). We averaged the two items that measured participants' mood after they reviewed the storyboards to form a mood index (r = .84). The results of an ANOVA showed that participants' mood in the two prime conditions did not differ ($M_{gain} = 4.11$ versus $M_{loss} = 4.35$; $F(1, 54) = 1.19$, $p > .20$), indicating that the two storyboards did not affect participants' mood states differently. In addition, participants across the two conditions indicated that they were equally involved while processing the storyboards ($M_{gain} = 3.43$ versus $M_{loss} = 3.23$; F < 1).

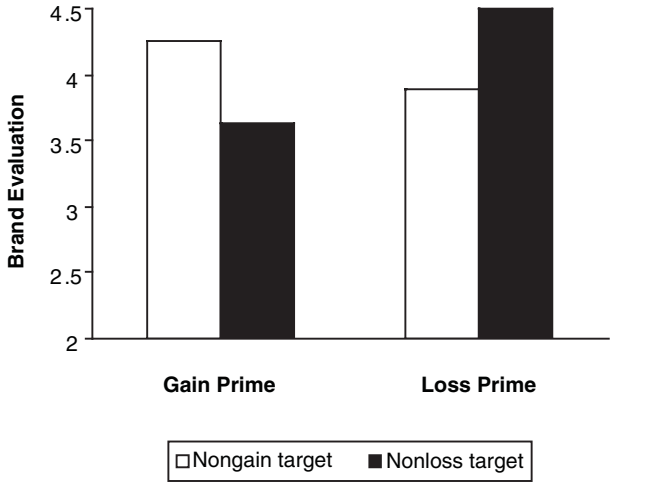
We also examined whether the prime had any effect on participants' evaluations of the filler product (coffee), which was not conceptually related to the prime. The results showed that participants' evaluations of the filler product (r = .82) were similar between the two prime conditions ($M_{gain} = 3.42$, $M_{loss} = 3.86$; $F(1, 54) = 1.87$, $p > .10$).

Hypotheses testing. The objective of Experiment 2 is to investigate whether the goal compatibility effect observed in Experiment 1 reflects a hedonic goal structure or a regulatory goal structure. We would obtain evidence for a hedonic goal structure if participants exposed to the gain prime preferred the nonloss target to the nongain target, and vice versa for those exposed to the loss prime. However, there would be support for a regulatory goal structure if participants exposed to the gain prime preferred the nongain target to the nonloss target, and vice versa for those exposed to the loss prime.

We averaged participants' ratings on their evaluations of the target to form a brand attitude index ($\alpha = .88$). The results of a 2 × 2 ANOVA that examined the effects of the prime on the attitude index showed that neither main effect was significant (Fs < 1). However, the hypothesized interaction between prime and target was significant ($F(1, 52) = 5.56$, $p < .03$). Planned contrasts showed that participants who had previously been exposed to a gain prime evaluated the target more favorably when it was framed to emphasize nongains (M = 4.25) than when it was framed to emphasize nonlosses (M = 3.63; $t(52) = 1.74$, $p < .05$), and participants who had previously been exposed to a loss prime evaluated the nonloss target more favorably (M = 4.50) than the nongain target (M = 3.89; $t(52) = 1.78$, $p < .05$). Further contrasts also showed that participants evaluated the nonloss target more favorably when they had been exposed to the loss-framed storyboard than when they had been exposed to the gain-framed storyboard (M = 4.50 versus 3.63; $t(52) = 2.26$, $p < .02$), and they evaluated the nongain target more favorably when they had been primed by the gain-framed storyboard than when they had been primed by the loss-framed storyboard (M = 4.25 versus 3.89; $t(52) = 1.18$, $p = .12$), though this difference was not statistically reliable. None of the participants indicated that their evaluations of the target were influenced by the advertisements they saw previously. These results provide evidence in support of a regulatory goal compatibility rather than a hedonic goal compatibility (see Figure 2).

Processing fluency. We asked participants to indicate how they processed the advertisement on a three-item, seven-point scale. All three items loaded on a single factor in a factor analysis, and we averaged them to form a pro-

Figure 2
EXPERIMENT 2: BRAND EVALUATION AS A FUNCTION OF REGULATORY GOAL COMPATIBILITY

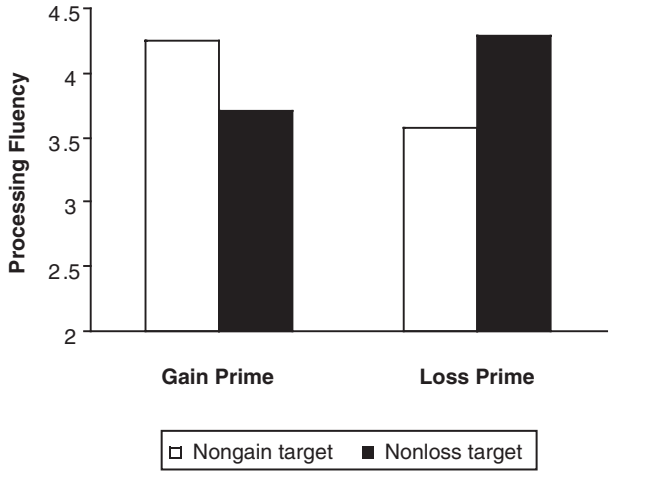


cessing fluency index (α = .77). A 2 (prime) × 2 (target) ANOVA on the processing fluency index showed that the interaction effect was significant ($F(1, 52) = 5.24$, $p < .03$; see Figure 3). Consistent with the regulatory goal fluency hypothesis, participants in the gain prime condition perceived the nongain target advertisement (M = 4.25) as easier to process than the nonloss target advertisement (M = 3.71), whereas those in the loss prime condition perceived the nonloss target advertisement (M = 4.29) as easier to process than the nongain target advertisement (M = 3.57).

To examine further the regulatory goal fluency effect on evaluation, we conducted mediation analyses (Baron and Kenny 1986). The result of the first regression analysis showed that the hypothesized prime × target interaction on brand attitude was significant (b = .30, $t(52) = 2.36$, $p < .05$). A second regression analysis showed that the prime × target interaction on participants' perceived processing fluency was also significant (b = .31, $t(52) = 2.29$, $p < .05$). A final regression analysis with processing fluency included in the model as a predictor of brand attitude showed that the effect of processing fluency was significant (b = .63, $t(52) = 6.51$, $p < .001$), whereas the prime × target interaction became nonsignificant (b = .11, $t(52) = 1.04$, $p > .30$). The result of the Sobel test showed that the mediating effect of processing fluency on brand attitude was indeed significant ($z = 2.14$, $p = .03$). These data provide support for the regulatory goal fluency hypothesis.

Perceptual identification task. To seek further support that the goal compatibility effects on evaluation are driven by processing fluency, we examined the effects of goal compatibility versus goal conflict on participants' ability to identify words from the target advertisement in the two priming conditions. We coded participants' responses in the word identification task as binary (1 = correct identification, 0 = otherwise) and tabulated them to create two fluency indexes. We created a promotion goal fluency index by summing participants' performance on words from the nongain target advertisement and a prevention goal fluency index by summing participants' performance on words from the nonloss target advertisement. We predicted that participants would identify more words in the compatible goal conditions than in the conflicting goal conditions. We conducted a 2 (prime) × 2 (target) × 2 (fluency) repeated measures ANOVA with prime and target as between-participant factors and fluency as a within-participant factor. The results revealed a significant two-way interaction between prime and target ($F(1, 52) = 6.75$, $p < .02$) in that participants identified more words in the compatible goal conditions (gain prime/nongain target, loss prime/nonloss target) than in the conflicted goal conditions (gain prime/nonloss target, loss prime/nongain target). No other effects were significant (Fs < 1 except for fluency: $F(1, 52) = 1.28$, $p > .20$).

Figure 3
EXPERIMENT 2: PROCESSING FLUENCY AS A FUNCTION OF REGULATORY GOAL COMPATIBILITY



We conducted a series of planned contrasts to examine the facilitating effect of goal compatibility and the inhibiting effect of goal conflict on processing fluency. According to the goal compatibility hypothesis, participants should experience an enhanced ease of processing the target advertisement when the regulatory goal serviced by the product has been primed previously. To test this hypothesis, we first analyzed the effect of the prime on participants' identification of the target words they had seen. Indeed, participants who evaluated the nongain target identified more nongain target words when they had been primed by the gain-framed storyboard than when they had been primed by the loss-framed storyboard (M = 1.75 versus 1.50; $t(52) = 1.69$, $p < .05$), and participants who evaluated the nonloss target identified more nonloss target words when they had been primed by the loss-framed storyboard than when they had been primed by the gain-framed storyboard (M = 1.92 versus 1.64; $t(52) = 1.79$, $p < .05$). This comparison controls for the perceptual fluency effect because participants in both conditions had been exposed to the target words previously, and the difference is driven by whether they had been primed by a goal-compatible advertisement or a goal-conflicting advertisement.

We also hypothesized that processing fluency of the target advertisement would be inhibited when the regulatory goal of the advertisement conflicted with the goal made accessible by the prime. That is, the goal conflict between the prime and the target would interfere with participants' processing of the target advertisement and, in turn, would impair their word identification performance. To test this hypothesis, we compared participants' identification performance when they had seen the words in a conflicting target advertisement with a baseline performance when participants had not been previously exposed to the advertisement. As we predicted, participants in the loss prime condition identified fewer nongain target words when they had been presented with the nongain target advertisement (M = 1.50) than when they had been presented with the nonloss target advertisement (M = 1.83; $t(52) = 2.12$, $p < .02$). Similarly, participants in the gain prime condition identified fewer nonloss target words when they had been presented with the nonloss target advertisement (M = 1.64) than when they had been presented with the nongain target advertisement (M = 1.81; $t(52) = 1.20$, $p = .12$), though this difference was not statistically significant. These inhibition results are especially striking because prior exposure typi-

cally enhances processing fluency (Lee 2001); the current results showing that participants' word identification performance was impaired rather than facilitated by prior exposure provide evidence that goal conflict inhibits processing fluency.

Discussion

Experiment 2 replicated and extended the results of Experiment 1 in several ways. First, using different stimuli, Experiment 2 demonstrated the robustness of the effects observed in Experiment 1 by showing that goal compatibility between a prime and a target brand enhances evaluation of the target brand, whereas goal conflict suppresses evaluation. Participants' evaluations of the filler product were similar across the two prime conditions, suggesting that the prime did not affect their evaluations of unrelated products. This finding provides support that attitude toward the target reflected an effect of goal compatibility between the conceptually related prime and the target. Note also that participants did not evaluate the two priming advertisements differently, and the two advertisements did not induce different mood states. Thus, participants' evaluations of the target product across the two conditions could not be accounted for by a difference in their global affective states.

Second, the results of Experiment 2 show that participants' evaluations of the target brand are influenced by the compatibility of regulatory goals, not hedonic goals. Participants who saw a gain prime preferred the nongain target to the nonloss target, and participants who saw a loss prime preferred the nonloss target to the nongain target. These effects imply a regulatory goal structure that distinguishes between a promotion (i.e., gains and nongains) and a prevention (i.e., losses and nonlosses) focus and is inconsistent with a hedonic goal structure that distinguishes between approach (i.e., gains and nonlosses) and avoidance (i.e., nongains and losses) goals.

Third, Experiment 2 provides convergent evidence in support of a goal fluency account. Specifically, participants indicated that the target advertisement that matches the regulatory goal serviced by the prime was easier to process than the target advertisement that conflicts with the regulatory goal. In turn, this perceived ease of processing mediated their evaluations of the target brand. Furthermore, the prime influenced participants' ability to identify words from the target advertisement. Participants could identify more words from the target advertisement when the regulatory goal of the advertisement was compatible with the goal activated by the related prime. When the regulatory goal conflicted with the goal activated by the related prime, participants' word identification performance was impaired. These results are consistent with the notion that when consumers are exposed to the prime, a network of associations, including the regulatory goal structure of the prime, is activated. When consumers subsequently encounter a target brand that is related to the prime (i.e., their network of associations overlap), the overlap between the mental representations of the prime and the target renders the target easier to process. However, a previously activated regulatory goal may interfere with the processing of the target if the primed goal conflicts with the goal serviced by the target. In turn, the inhibited processing fluency leads to less favorable attitudes toward the target.

GENERAL DISCUSSION

Previous research on processing fluency makes the distinction between conceptual and perceptual fluency. Whereas conceptual fluency relies on conceptual, top-down processing and benefits from elaboration, perceptual fluency relies on data-driven, bottom-up processing and is not sensitive to elaboration. Both types of processing fluency have been shown to enhance product evaluation and brand choice (e.g., Lee 2002). The current research contributes to the processing fluency literature in several ways. Our results extend previous findings on processing fluency to include a goal fluency effect on evaluation. In particular, we show that consumers' evaluations of a brand may be influenced by higher-order regulatory goals that have been made accessible in memory by prior advertising. The regulatory goal fluency hypothesis posits that consumers will develop more favorable attitudes toward a target brand if the regulatory goal addressed by the target is easy to process. This happens when the regulatory goal addressed by the target matches the goal addressed by a previously presented product. In contrast, when the regulatory goal addressed by the target conflicts with the goal addressed by a previously presented product, consumers' attitudes toward the target will become less favorable. We present convergent evidence, using different dependent measures (purchase intent in Experiment 1, and liking in Experiment 2) and across different product categories (lice shampoo, hair conditioner, and insect killer in Experiment 1, and foot deodorizer and antiperspirant in Experiment 2), that the effect of goal compatibility on evaluation is robust. Furthermore, the results of Experiment 2 add to the processing fluency literature by showing a regulatory goal fluency effect; that is, the goal compatibility effect on persuasion is driven by participants' ease (or difficulty) of processing the target.

Note that the regulatory goal fluency effect is distinct from perceptual fluency effects in that regulatory goals do not have perceptual characteristics that can be made salient. The regulatory goal fluency effect is also different from conceptual fluency effects previously examined in that an inhibition or suppression effect may occur when the two goals conflict with each other. The goal fluency effect observed in the current studies also differs from the framing effects that Lee and Aaker (2004) demonstrate, in which positive, promotion-focused information (e.g., getting energized) is easier to process when it is presented in a gain frame than when it is presented in a nongain frame, and negative, prevention-focused information (e.g., clogged arteries) is easier to process when it is presented in a loss frame than when it is presented in a nonloss frame. The current results show that fluent processing is not limited to gain-framed, positive information or loss-framed, negative information; processing fluency of nongain and nonloss information can be enhanced when the regulatory goal serviced by the brand has been recently activated.

Our results also contribute to the research on goals and motivation. Previous research suggests that goals can be activated spontaneously by environmental contexts and situational cues to affect subsequent attitudes and behaviors

(Bargh and Ferguson 2000; Fishbach, Friedman, and Kruglanski 2003; Kruglanski et al. 2002). Indeed, our results indicate that exposure to brands may automatically activate higher-order regulatory goals in memory. After these goals are activated, they affect the processing fluency and evaluation of brands that consumers subsequently encounter. Our results showing a goal compatibility (conflict) effect on persuasion are consistent with recent findings that a message is more (less) persuasive when the message frame matches (conflicts with) the regulatory goal of the advertisement (Lee and Aaker 2004).

More important, our results shed light on the cognitive structure of goals in memory. Many previous studies were designed to discern between people's desires to approach gains and their desires to avoid losses and thus did not distinguish between hedonic and regulatory goal outcomes (e.g., Kahneman and Tversky 1979; Lockwood, Jordan, and Kunda 2002). The results showing that people are more sensitive to gains than to losses, or vice versa, are consistent with both regulatory focus theory and the hedonic principles of approach and avoidance. The data present evidence in support of a cognitive goal structure that distinguishes between promotion and prevention goals rather than between approach and avoidance goals. That is, the mental representations of goals conform to a regulatory goal structure and not to a hedonic goal structure.

The current research also provides an additional, important perspective on goal conflict, an area that has received relatively little attention until recently. By assessing processing fluency using participants' self-reports on perceived ease of processing and an implicit task measuring word identification (Experiment 2), we present convergent evidence that goal compatibility between the prime and the target is accompanied by fluent processing and more favorable attitudes toward the target and that goal conflict between the prime and the target leads to inhibited processing and less favorable attitudes toward the target. These results further the understanding of the regulatory fit effect reported in the literature (e.g., Higgins et al. 2003; Lee and Aaker 2004). Previous research shows that people assign greater value to objects when they experience regulatory fit than when they experience nonfit, and the difference in value between fit and nonfit is often attributable to the facilitative effects of regulatory fit rather than to the inhibitive effects of regulatory nonfit (e.g., Higgins et al. 2003). Our data suggest that the difference is the result of a combination of the facilitative effect of goal compatibility and the inhibitive effect of goal conflict.

For advertisers, our results show that advertising context plays an important role in the persuasiveness of an advertisement. Consumers' evaluations of a target brand can be positively or negatively influenced by prior advertising of products from related categories, depending on whether the regulatory goal serviced by the target advertisement matches or conflicts with the regulatory goal activated by the related product advertisement. Instead of leaving the effectiveness of advertising to chance, it appears that there are a few strategies that advertisers could consider to ensure the maximum effectiveness of their advertising campaigns. First, advertisers could negotiate (or pay a premium if necessary) to have the first spot in the commercial break to avoid any negative context effects. Second, to minimize potential goal conflict induced by advertising that consumers may have been previously exposed to, advertisers could prime consumers with the regulatory goal that matches the regulatory focus of the appeal and then present the appeal in a frame that is consistent with the regulatory goal. For example, an advertisement for vitamins could first make salient a prevention goal by referencing the family (Lee, Aaker, and Gardner 2000) and then emphasize the benefits of disease prevention using a negative frame (Lee and Aaker 2004). For companies that have multiple product lines under an umbrella brand, it would be important that the different advertising campaigns adopt the same regulatory goal in their positioning and ad copy strategy. Third, in light of recent research showing that uninvolved consumers presented with both compatible and conflicting information are likely to focus on information that fits with their regulatory goal (Wang and Lee 2006), advertisers could consider including both promotion and prevention positioning in their advertisement to neutralize potential goal-conflicting effects and leverage compatibility effects. Finally, processing fluency effects may also be applicable in nontraditional advertising approaches, such as product placements. Brands may benefit from conceptual or goal fluency effects, depending on the plot of the program. Thus, advertisers are well advised to consider the programming context to ensure that the nature of the program or the plot is compatible with the current positioning of their brands.

One limitation of the current studies is that it is not clear whether relatedness between the prime and the target is indeed necessary for the regulatory goal fluency effect to be observed. That is, can the results be obtained with an unrelated prime that has a salient regulatory goal positioning? Across the two experiments, we observed the goal compatibility effects only between pairs of related products. The unrelated control prime (pasta in Experiment 1) had no effect on the target (insect killer or hair conditioner), and the related prime (shampoo in Experiment 1 and foot deodorizer in Experiment 2) had no effect on an unrelated filler (battery in Experiment 1 and coffee in Experiment 2). However, the null effects between the unrelated pairs of product may have been due to the lack of regulatory goal salience for either the control prime or the filler. Had the unrelated filler (e.g., coffee in Experiment 2) been regulatory goal focused, the goal compatibility or conflict effects might have been observed. Additional research is warranted to investigate further the conditions under which the regulatory goal fluency effects may occur.

Although the data indicate that processing fluency mediated participants' evaluations of the target, it is not clear whether fluent processing is the direct outcome of goal compatibility or the result of greater attention to the compatible goal target. Previous research has established that participants report greater attention to prime-relevant (e.g., Sherman et al. 1998) or goal-relevant (see Markman and Brendl 2000) information. Thus, it is possible that goal compatibility increases (decreases) the attention that consumers give to information that matches (conflicts with) their goal, in which case the goal compatibility effect observed would reflect a more systematic process that involves elaboration rather than a heuristic process that involves processing ease. Investigation of this premise awaits further research.

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