The Curious Case of Behavioral Backlash: Why Brands Produce Priming Effects and Slogans Produce Reverse Priming Effects

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Five experiments demonstrate that brands cause priming effects (i.e., behavioral effects consistent with those implied by the brand), whereas slogans cause reverse priming effects (i.e., behavioral effects opposite to those implied by the slogan). For instance, exposure to the retailer brand name “Walmart,” typically associated with saving money, reduces subsequent spending, whereas exposure to the Walmart slogan, “Save money. Live better.” increases it. Slogans cause reverse priming effects and brands cause priming effects because people perceive slogans, but not brands, as persuasion tactics. The reverse priming effect is driven by a nonconscious goal to correct for bias and can occur without any conscious mediation (i.e., following subliminal exposure to the word “slogan”). These findings provide evidence that consumer resistance to persuasion can be driven by processes that operate entirely outside conscious awareness.
Consumer behavior is influenced by a vast arsenal of marketing tactics, including brand names, slogans, endorsers, pricing and salespeople. Often these tactics exert their influence automatically, in subtle ways that consumers do not intend, are not aware of, or cannot control (Janiszewski 1988; Shapiro 1999; Wyer 2008). Even incidental exposure to a marketing tactic can activate, or prime, associated mental constructs and cause consumers to think and behave in a manner implied by a tactic (Berger and Fitzsimons 2008; Fitzsimons, Chartrand, and Fitzsimons 2008). For instance, seeing the brand name Walmart (or Nordstrom) primes value (or luxury) and boosts subsequent evaluations of economy-priced (or luxury-priced) merchandise (Chartrand et al. 2008). Although it is clear that marketing tactics have the power to influence consumers automatically, it remains unclear whether all marketing tactics are equally effective in this regard. Indeed, certain tactics may automatically affect consumers in ways that oppose what marketers would intend.

We propose that priming effects depend not only on the behavior implied by a marketing tactic, but also on the type of marketing tactic used. Rather than behaving in a manner implied by a tactic, consumers may automatically behave in a contrary manner, becoming more thrifty when tactics imply spending money and more indulgent when tactics imply seeking value. That is, rather than a priming effect, marketing tactics may cause a reverse priming effect on behavior. We suggest that priming effects are reversed when consumers perceive a marketing tactic as a source of persuasion. This view has important implications for understanding consumers’ ability to resist persuasion. Prior research implies that consumers are ill-equipped to counteract the effects of the countless marketing tactics encountered each day. Not only are the effects subtle and pervasive, but correcting for them typically requires consciously-mediated processes (Forehand and Perkins 2005; Gorn, Jiang, and Johar 2008; Hung and Wyer 2008; Kray,
Thompson, and Galinsky 2001). We, however, suggest that consumers correct for the persuasive effects of some marketing tactics by relying on an automatic response.

Next, we delineate consumer perceptions of how different marketing tactics are meant to influence behavior. These perceptions, we argue, explain why certain marketing tactics trigger a reverse priming effect. We then describe the underlying psychological process of the reverse priming effect.

**CONSUMER PERCEPTIONS OF BRANDS AND SLOGANS**

While virtually all marketing stimuli are persuasion tactics, consumers might perceive certain marketing stimuli as persuasion tactics but not others. One might expect perceptions about persuasion intent to generalize across marketing tactics given that consumers often resist marketing efforts and are skeptical of the experiences they will derive from consumption (Dimofte, Forehand, and Deshpandé 2003; Knowles and Linn 2004; Meyers-Levy and Malaviya 1999). But, in fact, responses to marketing tactics vary tremendously and can be quite favorable. The present research focuses on consumer perceptions of brands versus slogans.

Brands are not treated as simply another tool in a marketer’s toolkit. For instance, brands are attributed human-like personality traits and treated as relationship partners with whom consumers develop emotional attachments and share commitments (Aaker 1997; Aaker, Fournier, and Brasel 2004). Consumers respond differently to different tactics for diverse reasons, among which are consumer perceptions and lay theories about the different purposes these tactics serve (Hung and Wyer 2008). A brand name is an inherent attribute of a product. Few if any products are sold that do not have a brand name associated with them. A brand name may be a cue to prestige or quality, but because it is a generic feature, like price, that all products necessarily need to have, consumers may not perceive a brand as a persuasion tactic. Slogans, on
the other hand, are used to sell brands. Slogans are part of a persuasive appeal that is obviously intended to convey something good, or to remind consumers of a brand’s attributes (Dimofte and Yalch 2007). Thus, although brands and slogans are both persuasion tactics, consumers can recognize how slogans are meant to influence their behavior more easily than brands. The persuasion knowledge model (Friestad and Wright 1994) posits that when consumers understand how a stimulus is intended to influence their behavior, they are more likely to perceive it as a persuasion tactic. Because slogans have a more transparent purpose than brands do, consumers should be more likely to perceive slogans as persuasion tactics compared to brands.

A pretest was conducted to provide additional support for this view. The pretest used a 3 (priming tactic: sentence, brand, slogan) by 2 (behavior: save vs. spend) between-subjects design. Fifty participants viewed a series of five slogans, brands, or sentences (the latter were included to establish a baseline) that conveyed either saving or spending money. (The stimuli are also used in study 1 and are listed in the appendix.) For each item, participants responded to the question, “To what extent do you think this item is trying to persuade you?” on a 7-point scale. Ratings of persuasion intent were averaged across the five items (i.e., sentences, brands, or slogans) each participant viewed and analyzed in an analysis of variance (ANOVA). Neither the main effect of behavior nor the interaction between behavior and priming tactic was significant ($F_s < 1$). As predicted, the main effect of priming tactic was significant ($F(2, 44) = 3.47, p < .05$). The persuasion intent of slogans was higher ($M = 5.13$) than either that of brands ($M = 3.20$; $F(1, 44) = 3.47, p < .05$) or sentences ($M = 3.00$; $F(1, 44) = 8.15, p = .01$), while the persuasion intent of brands and sentences did not differ from each other ($F < 1$). These findings suggest that consumers perceive marketing stimuli as persuasion tactics irrespective of whether the stimuli promote spending or saving. Central to our hypothesis, the findings suggest that brands are
perceived to be innocuous (no different from common sentences), but slogans are perceived to be persuasion tactics.

AUTOMATIC CORRECTION AGAINST PERSUASION

To understand what transpires psychologically and behaviorally when consumers encounter brands or slogans, we integrate literatures on correction and automaticity. Correction research finds that when consumers encounter a source of unwanted bias, mental processes and behaviors are instigated to correct for its potential influence (Petty, Wegener, and White 1998; Williams, Fitzsimons, and Block 2004; Wilson and Brekke 1994). Responses include counter-arguing (Kardes 1988; 2005), negative evaluations of the source of persuasion (Campbell and Kirmani 2000; Main, Dahl, and Darke 2007), and reversed preferences or behaviors (Fitzsimons and Lehmann 2004; Wicklund 1970). As consumers acquire richer knowledge of marketing tactics and experience coping with such tactics, they come to rely on routine, spontaneous processes and responses (Friestad and Wright 1994; Darke and Ritchie 2007). If certain tactics are repeatedly and consistently met with skepticism, then it is plausible that a once consciously-mediated correction process could be activated and influence behavior nonconsciously (Bargh 1990). One marketing tactic that could elicit an entirely nonconscious form of correction is slogans. Given that consumers perceive slogans as persuasion tactics, and that marketers use slogans extensively, it is likely that consumers cope with the persuasive effects of slogans countless times in the course of daily life. Thus, we predict that slogans automatically activate correction, but brands, which are not perceived as persuasion tactics, do not.

Priming and Reverse Priming Effects on Behavior

If slogans automatically activate a correction process and brands do not, then slogans and brands would have opposite downstream effects on behavior. Consumers exposed to brands
would behave in a manner implied by the brands. This view is consistent with research showing that consumers evaluate prestige (value) products more favorably following exposure to prestige (value) brand names (Chartrand et al. 2008), and think more creatively following exposure to the company logo for Apple (Fitzsimons et al. 2008). Conversely, consumers exposed to slogans would engage in behavior that is opposite to that implied by the slogans. That is, the correction process would extend beyond the slogan that provoked it and affect a consumption decision that is not directly related to it. As is often the case, correction would be excessive and result in a reversed behavioral effect (Glaser and Banaji 1999). Accordingly, whereas the brand “Walmart” causes thriftiness, the slogan “Save money. Live better.” causes indulgence. Pertinent to this argument, Chartrand, Dalton, and Fitzsimons (2007) find that people’s behavior following subliminal exposure to the name of a relationship partner (e.g., a friend, coach, or parent) depends on the perception that the partner is controlling. Behavior is consistent with the wishes of partners who are not considered controlling, but opposes the wishes of partners who are considered controlling. Similar to relationship partners, marketing tactics construed as unwanted sources of influence should automatically elicit opposing behaviors. Specifically, we predict:

**H1:** Because consumers do not perceive brands as persuasion tactics, exposure to brands evokes behavior that is consistent with the behavior implied by the brand (i.e., a priming effect). In particular, brands that convey spending (saving) should increase (decrease) subsequent willingness to spend.

**H2:** Because consumers perceive slogans as persuasion tactics, exposure to slogans evokes behavior that is inconsistent with the behavior implied by the slogan (i.e., a reverse priming effect). In particular, slogans that convey spending (saving) should decrease (increase) subsequent willingness to spend.
According to these hypotheses, the behavioral effects of brands and slogans depend on consumer perceptions. Because the default perception is that slogans are persuasion tactics but brands are not, the default effect is reverse priming for slogans but priming for brands. Importantly, temporarily changing consumer perceptions, such that brands are perceived as persuasion tactics or slogans are not, should change these effects.

The present research can be couched in a wider literature showing that priming effects on behavior are mitigated or reversed by a range of situational or individual difference factors, such as psychographic and demographic characteristics (Sela and Shiv 2009; Smeesters et al. 2009; Wheeler and Berger 2007), temporary goals or need states (Laran and Janiszewski 2009; Strahman, Spencer, and Zanna 2002), consumer expertise (Mandel and Johnson 2002) or values (Smeesters et al. 2003). For instance, Laran, Janiszewski, and Cunha (2008) found that novel situations (e.g., purchasing a gift for a friend’s father) generate behaviors that oppose those implied by priming stimuli. Smeesters et al. (2003) demonstrated that priming morality reduces, rather than increases, cooperative behavior among certain individuals oriented toward maximizing individual outcomes. Another set of findings shows that extreme exemplars generate so-called contrast effects (Dijksterhuis et al. 1998; Moskowitz and Skurnik 1999; Shen, Jiang, and Adaval 2010), which refers to judgment that is incongruent with an exemplar that precedes it. The term “contrast” maps on to the term “reverse priming” used here but, for the sake of clarity, we only use the term reverse priming to describe the current effects.

**Correction via Nonconscious Goal Pursuit**

We propose that marketing tactics can cause reverse priming effects by automatically activating processes aimed at correcting for persuasion. This view leads to a specific prediction about the psychological mechanism underlying the reverse priming effect. It is well-established
that avoiding bias requires motivation (Martin, Seta, and Crelia 1990; Wilson, Houston, and Meyers 1998). As described by Wegener and Petty (1995, p. 38), “when people are motivated and able to correct, they consult their naïve theories about the direction and magnitude of bias brought about by contextual factors...When there is sufficient motivation and ability, then, corrections are made in an attempt to remove the perceived bias.” Keeping with this literature, we posit that marketing tactics cause reverse priming effects via a goal to correct for bias; but our perspective deviates from the traditional view of correction in a key way. Whereas that view implies that consumers deliberately motivate correction, we argue that if a goal to correct for bias is routinely activated in response to certain marketing tactics, then it can be activated and pursued without awareness or intent (Chartrand, Dalton, and Cheng 2008). Our perspective bears resemblance to that of Glaser and Banaji (1999), which raised the intriguing possibility that a goal to avoid bias can operate automatically and affect other automatic processes (p. 682).

According to our theorizing, slogans cause a reverse priming effect but brands do not because slogans, not brands, activate a nonconscious goal to correct for bias. Prior research has linked reverse priming effects to a variety of psychological processes, such as comparison processes (Schwarz and Bless 1992; Scherer and Lambert 2009; Shen et al. 2010), which would imply that the mental construct evoked by slogans is not a goal, but a cognitive construct, such as a trait or exemplar. Goal-based and cognitive mechanisms can be teased apart because goal-directed behavior exhibits specific properties that define it as motivational rather than cognitive in origin (Bargh et al. 2001). One quality of a motivational state is it dissipates quickly once satiated (Lewin 1951). For this reason, a goal that is pursued and satisfied no longer affects behavior (Chartrand et al. 2008). Thus, we predict:
**H3:** Exposure to slogans activates a nonconscious goal to correct for bias. The correction goal can be satisfied and its behavioral effect eliminated.

**OVERVIEW OF STUDIES**

Five studies collectively show that (a) exposure to marketing stimuli that are perceived to be persuasion tactics can cause a reverse priming effect, (b) the reverse priming effect is mediated by a nonconscious correction goal, and (c) it can occur without any conscious intervention. Study 1 establishes that consumers behave in a manner consistent with that implied by a brand (a priming effect), but inconsistent with that implied by a slogan (a reverse priming effect). Studies 2 and 3 examine persuasion intent as the catalyst for these effects. If these effects are triggered by the perception that slogans are persuasion tactics but brands are not, then temporarily altering these perceptions should alter these effects. Accordingly, study 2 finds that slogans produce a priming effect if aspects of slogans other than persuasion intent become salient. Study 3 shows that brands cause a reverse priming effect if their persuasion intent becomes salient, and shows mediation by perceived persuasion intent. Study 4 establishes that a nonconscious correction goal determines the reverse priming effect. Finally, study 5 uses subliminal priming to show that the reverse priming effect can occur without any conscious intervention, in conditions where people are unaware they have encountered a marketing tactic.

**STUDY 1**

Study 1 investigated the hypothesis that brands cause a priming effect, whereas slogans cause a reverse priming effect. Participants viewed a series of brands, slogans, or sentences that were related to spending money, saving money, or were neutral. The purpose of including neutral stimuli was to establish a baseline against which we could compare the spending and saving conditions. The purpose of including sentences, in addition to brands and slogans, was to
demonstrate priming effects using stimuli that are common in prior research (Bargh et al. 2001; Chartrand and Bargh 1996). Doing so would allow for qualitative comparisons across the prime tactics and would stave off concern that the key results for brands and slogans are due to idiosyncrasies in the procedure. The purpose of including stimuli related to both saving and spending was to establish that the results are not driven by the behavior implied by the stimuli (saving or spending), but rather, by the type of stimuli (brands vs. slogans).

The priming stimuli were presented in a bogus memorization study. In an ostensibly unrelated study, participants reported their willingness to spend on a shopping trip. We predicted that when the priming stimuli were sentences or brands, consumers would be willing to spend less money following exposure to save-related stimuli and more money following exposure to spend-related stimuli. Conversely, when the priming stimuli were slogans, consumers would be willing to spend more money following exposure to save-related stimuli and less money following exposure to spend-related stimuli.

**Method**

*Participants and Design.* A total of 435 undergraduate business students participated in exchange for course credit. The design was a 3 (priming tactic: sentence, brand, slogan) by 3 (behavior: save, spend, neutral) between-subjects design.

*Procedure and Stimuli.* Participants were seated at personal computers and informed that they would participate in two unrelated studies. The first study, which actually was the priming task, purportedly investigated which types of stimuli are most memorable to people. Five stimuli appeared individually in the center of the computer screen for two seconds each. These stimuli were either spend-related, save-related, or neutral sentences, brands, or slogans (see the appendix). Participants were instructed to remember the stimuli because they would be asked
about them later. After viewing each stimulus three times (for a total of 15 presentations), participants recalled everything they remembered. Recall was generally good ($M = 4.07$) and did not vary across type of stimuli ($F < 1$). The second study, called “Shopping Decisions,” presented the following instructions: “Imagine that you want to go shopping and you are wondering whether you should spend a lot of money or try to save money during your shopping trip. Indicate below how much money you would be willing to spend when shopping.” Participants moved a slider button on the computer screen to select an amount of money between $0$ and $500$. Next, participants completed Hong and Faedda’s (1996) 13-item reactance scale, then responded to the question: “To what extent do you tend to react against marketing tactics intended to persuade you?”. Neither measure moderated the effects of the experimental manipulations (all $F$s $< 1$), so these measures are not discussed further. Finally, participants completed a funneled debriefing (Bargh and Chartrand 2000) designed to probe for suspicions about the experiment’s true purpose. No participant could identify the real purpose of the experiment or the potential link between the first and second tasks. This finding was consistent across multiple studies, and suggests that the effects of the manipulations on the dependent measure were indeed nonconscious. Therefore, funneled debriefings are not discussed further.

**Results**

*Pretesting.* Pretests were conducted to test whether the stimuli conveyed the behaviors they were intended to convey. Responding on a 5-point scale (1= totally associated with saving money, 5=totally associated with spending money), a group of 91 participants indicated that brands were more strongly associated with saving money in the saving condition ($M = 1.64$) compared to the neutral condition ($M = 3.16$; $t(90) = -30.14$, $p < .01$), and more strongly associated with spending money in spending condition ($M = 4.53$) compared to the neutral
condition ($t(90) = 30.54, p < .01$). Responding on the same 5-point scale, a separate group of 61 participants indicated that slogans were more strongly associated with saving money in the saving condition ($M = 2.18$) compared to the neutral condition ($M = 3.13; t(60) = -10.51, p < .01$), and more strongly associated with spending money in the spending condition ($M = 3.94$) compared to the neutral condition ($t(60) = 11.02, p < .01$). A final pretest was conducted to establish that the slogans, which were created for this research, were perceived as slogans.

Responding on a 5-point scale (1=looks totally like a regular sentence, 5=looks totally like a slogan), a group of 91 participants indicated that the slogans looked more like slogans ($M = 4.33$) than the sentences looked like slogans ($M = 2.61; t(90) = 30.09, p < .01$).

**Willingness to Spend.** Means are presented in figure 1. An ANOVA on the willingness to spend variable revealed an interaction between the priming tactic and behavior factors ($F(4, 426) = 13.03, p < .01$). In the sentence condition, willingness to spend depended on the primed behavior ($F(2, 426) = 10.52, p < .01$). Compared to neutral sentences ($M = $145.93, $SE = 13.45$), willingness to spend was lower for save sentences ($M = $105.92, $SE = 12.89$; $F(1, 426) = 4.76, p < .05$; Cohen's $d = .49$) and higher for spend sentences ($M = $185.18, $SE = 11.55$; $F(1, 426) = 4.90, p < .05$; Cohen's $d = .38$). In sum, sentences generated priming effects.

In the brand condition, willingness to spend also depended on the primed behavior ($F(2, 426) = 13.29, p < .01$). As predicted, compared to neutral brands ($M = $150.73, $SE = 13.45$), willingness to spend was lower for save brands ($M = $94.30, $SE = 13.16; F(1, 426) = 9.28, p < .01; Cohen's $d = .62$), and higher for spend brands ($M = $189.27, $SE = 13.02; F(1, 426) = 4.24, p < .05; Cohen's $d = .35$). In sum, brands generated priming effects.

Finally, in the slogan condition, willingness to spend depended on the primed behavior ($F(2, 426) = 8.40, p < .01$). As predicted, compared to neutral slogans ($M = $142.93, $SE =
12.39), willingness to spend was higher for save slogans ($M = $184.58, $SE = 13.02); $F(1, 426) = 5.54, p < .05; Cohen's $d = .44$), and lower for spend slogans ($M = $105.23, $SE = 14.45; F(1, 426) = 3.92, p < .05; Cohen's $d = .52$). In sum, slogans generated reverse priming effects.

Discussion

In study 1, brands produced priming effects on a subsequent consumption decision: compared to neutral brands, consumers were willing to spend more following exposure to brands related to spending money, but less following exposure to brands related to saving money. Slogans, however, produced reverse priming effects: compared to neutral slogans, consumers were willing to spend less following exposure to slogans related to spending money, but more following exposure to slogans related to saving money. We attribute these effects to consumers’ perception that slogans are persuasion tactics and brands are not. Study 2 tests this view.

STUDY 2

If the reverse priming effect is triggered by the perception that slogans are persuasion tactics, then temporarily changing consumers’ perceptions of slogans should change the effect. If consumers contemplate aspects of slogans or brands other than persuasion intent (e.g., creativity), then these more accessible perceptions would be a likely input into consumers’ subsequent spending decisions. Thus, participants rated the creativity (vs. the persuasion intent) of brands or slogans in the priming task. When creativity was made salient, slogans should no longer produce a reverse priming effect, but a priming effect.

Method
Participants and Design. A total of 315 undergraduate business students participated in exchange for course credit. The design was a 2 (rating: persuasion vs. creativity) by 2 (priming tactic: brand vs. slogan) by 2 (behavior: spend vs. neutral) between-subjects design.

Procedure and Stimuli. The procedure and stimuli were identical to study 1 with one exception. During the priming task, participants in the persuasion ratings (i.e., control) condition rated each brand or slogan’s intent to persuade them, whereas participants in the creativity ratings condition rated each brand or slogan’s creativity. Ratings were on 9-point scales (1=Not at all, 9=Very much).

Results

Willingness to Spend. Means are presented in figure 2. An ANOVA on the willingness to spend variable found a three-way interaction between the rating, priming tactic, and behavior factors ($F(1, 307) = 4.42, p < .05$). In the persuasion rating condition, the analysis revealed an interaction between the priming tactic and behavior factors ($F(1, 307) = 5.83, p < .05$). Willingness to spend was higher for spend brands ($M = $216.71, $SE = 21.79$) compared to neutral brands ($M = $164.95, $SE = 14.56$; $F(1, 307) = 3.90, p < .05$; Cohen's $d = .43$). However, willingness to spend was lower for spend slogans ($M = $125.84, $SE = 21.08$) compared to neutral slogans ($M = $182.31, $SE = 16.43$; $F(1, 307) = 4.46, p < .05$; Cohen's $d = .48$). The results of the persuasion rating condition replicated study 1’s results: brands generated a priming effect and slogans generated a reverse priming effect.

As predicted, in the creativity rating condition, the analysis found no interaction between the priming tactic and behavior factors ($F < 1$), only a main effect of behavior ($F(1, 307) = 8.62, p < .01$). Willingness to spend was higher for spend brands ($M = $217.33, $SE = 17.30$) compared to the neutral brands ($M = $163.30, $SE = 21.08$; $F(1, 307) = 3.93, p < .05$; Cohen's $d = .45$), and
was higher for spend slogans ($M = 199.12, SE = 19.29$) compared to neutral slogans ($M = 136.84, SE = 23.47; F(1, 307) = 4.20, p < .05; \text{Cohen's } d = .62$). In sum, when consumers rated creativity, both brands and slogans generated priming effects.

Discussion

Study 2 demonstrated that slogans produce a reverse priming effect when consumers consider their persuasion intent and a priming effect when consumers consider their creativity. These results support the hypothesis that reverse priming effects are triggered by the perception that slogans are persuasion tactics – when this perception was temporarily overridden, the reverse priming effect was replaced by a priming effect. Following a similar logic, study 3 manipulates perceptions by heightening the perceived persuasion intent of brands.

STUDY 3

Study 3 tested the prediction that reverse priming effects in response to brands can be obtained if consumers recognize how brands would be instrumental to persuasion (Friestad and Wright 1994). Accordingly, rather than merely rating persuasion intent in the priming task, participants were prompted to temporarily focus on brands (or slogans) as marketing tactics. This manipulation should not change perceptions of slogans, which already are perceived as persuasion tactics, but should change perceptions of brands. Brands should no longer produce a priming effect; rather, both slogans and brands should produce reverse priming effects. Study 3 also examined the hypothesis that the perceived persuasion intent of brands or slogans mediates the effects.
The procedure was modified in additional ways to rule out alternative hypotheses and establish the robustness of our findings. First, study 3 used only well-known brands and slogans to rule out the possibility that the reverse priming effect is due to unfamiliarity. We predict that slogans are perceived as persuasion tactics and produce reverse priming effects even when they are familiar. Second, instead of presenting type-set brand names, brand logos were presented. We made this change because type-set might detract from brands’ persuasion intent, whereas trade-marked logos might make persuasion intent more apparent. Third, in the slogan condition, brand logos were presented alongside slogans. We made this change because brand logos are commonly presented alongside slogans and, when presented this way, the priming effect from brands might dominate the reverse priming effect from slogans. We predict that slogans are seen as persuasion tactics and cause a reverse priming effect even when they are paired with brands.

Method

Participants and Design. A total of 315 undergraduate business students participated in exchange for course credit. The design was a 2 (persuasion focus: persuasion focus vs. control) by 2 (priming tactic: brand vs. slogan) by 2 (behavior: save vs. neutral) between-subjects design.

Procedure and Stimuli. As in the previous studies, the priming task was purportedly a memorization study. Participants viewed either brands or slogans that were either related to saving or neutral. Then, in an ostensibly unrelated study, participants reported their willingness to spend on a shopping trip. In study 3, we included only familiar brands and slogans (see appendix), used brand logos instead of type-set brand names (see appendix), and paired each slogan with its corresponding brand logo. In addition, study 3 included a manipulation of persuasion focus. The persuasion focus condition included the following sentence along with the brands or slogans: “Imagine that you just came across this brand logo [slogan] in a magazine
with several ads selling an array of different products and brands.” In the control condition, the sentence read: “Imagine that you just came across this brand logo [slogan] in a magazine.” After participants indicated their willingness to spend, they responded to the question: “To what extent were the brand logos [slogans] in the recall task an attempt to persuade you?” Participants responded on a 9-point scale (1=Not at all, 9=Very much).

**Results**

*Pretesting.* A pretest ($N = 62$) confirmed that the slogans in the saving condition were more strongly associated with saving money ($M = 1.81$) compared to the slogans in the neutral condition ($M = 3.23$; $t(61) = -15.61, p < .01$).

*Willingness to Spend.* Means are presented in figure 3. As predicted, an ANOVA on the willingness to spend variable demonstrated a three-way interaction between the persuasion focus, priming tactic, and behavior factors ($F(1, 307) = 5.10, p < .05$). In the control condition, the analysis revealed an interaction between priming tactic and behavior ($F(1, 307) = 11.47, p < .01$). Willingness to spend was lower for save brands ($M = $113.90, $SE = 14.88$) compared to neutral brands ($M = $163.53, $SE = 17.07$; $F(1, 307) = 4.80, p < .05$; Cohen's $d = .55$). Willingness to spend was higher for save slogans ($M = $191.18, $SE = 17.07$) compared to neutral slogans ($M = $134.60, $SE = 17.30$; $F(1, 307) = 5.42, p < .05$; Cohen's $d = .60$).

As predicted, in the persuasion focus condition, there was no interaction between the persuasion focus and priming tactic factors ($F < 1$), only a main effect of behavior ($F(1, 307) = 8.35, p < .01$). Willingness to spend was higher for save brands ($M = $200.77, $SE = 18.90$) compared to neutral brands ($M = $143.37, $SE = 16.05$; $F(1, 307) = 5.36, p < .05$; Cohen's $d = .48$), and higher for save slogans ($M = $203.21, $SE = 19.89$) compared to neutral slogans ($M = $148.76, $SE = 14.88$; $F(1, 307) = 4.81, p < .05$; Cohen's $d = .42$).
Persuasion Intent Ratings. An ANOVA on the persuasion intent ratings found an interaction between persuasion focus and priming tactic \((F(1, 307) = 7.19, p < .01)\). In the control condition, ratings of persuasion intent were lower for brands \((M = 2.83, SE = .28)\) compared to slogans \((M = 4.36, SE = .30; F(1, 307) = 14.40, p < .01)\). In the persuasion focus condition, ratings did not differ for brands \((M = 4.70, SE = .30)\) compared to slogans \((M = 4.74, SE = .30; F < 1)\).

Mediation Analysis. We predicted that slogans produce a reverse priming effect to the extent they are perceived to be high in persuasion intent, and brands produce a priming effect to the extent they are perceived to be low in persuasion intent. Given the experiment’s design, we predicted that perceived persuasion intent would depend not only on whether participants were exposed to brands or slogans, but also on whether or not consumers focused on the persuasion intent of these stimuli. Moreover, the effect of persuasion intent on willingness to pay should depend on the primed behavior (save or neutral). We tested this theorizing in a moderated mediation analysis based on model 4 proposed by Preacher, Rucker, and Hayes (2007).

The analysis used a series of regression models to test the effect of priming tactic on persuasion ratings, moderated by persuasion focus, and the effect of persuasion ratings on willingness to spend, moderated by primed behavior. The first model regressed willingness to spend on persuasion focus, priming tactic, behavior, and their interactions, and yielded the three-way interaction \((B = 10.76, SE = 3.23; t(307) = 3.33, p < .01)\). The second model regressed persuasion ratings on persuasion focus, priming tactic, and their interaction, and yielded the two-way interaction \((B = -1.60, SE = .58; t(311) = -2.76, p < .01)\). The third model regressed
willingness to spend on persuasion focus, priming tactic, persuasion focus x priming tactic, persuasion ratings, behavior, and persuasion ratings x behavior. Consistent with our predictions, persuasion ratings x behavior predicted willingness to spend (B = 9.19, SE = 4.59; t(308) = 2.13, p < .05), but persuasion focus x priming tactic did not (B = -15.76, SE = 24.65; t(308) = -.64, p > .52). When persuasion ratings x behavior was added to the model with the persuasion focus x priming tactic x behavior interaction tested above, the three-way interaction was not significant (B = 17.93, SE = 13.70; t(306) = 1.31, p > .19).

Finally, we tested conditional indirect effects. These analyses examine whether the effect of priming tactic on willingness to spend is mediated by persuasion ratings at each level of the two moderators, persuasion focus and behavior. In the control focus condition, the effect of priming tactic on willingness to spend was mediated by persuasion ratings in the saving condition (B = 12.67, SE = 6.59; z = 1.92, p = .05), but not in the neutral condition (B = -2.86, SE = 5.11; z = -.56, p > .57). In the persuasion focus condition, the effect of priming tactic on willingness to spend was not mediated by persuasion ratings in the saving (B = -.07, SE = 3.63; z = -.02, p > .98) or the neutral condition (B = .02, SE = 1.49; z = .01, p > .99).

**Discussion**

Study 3 demonstrated that brands cause a reverse priming effect when consumers are prompted to perceive brands as persuasion tactics. It also demonstrated that priming and reverse priming effects that follow exposure to brands and slogans are mediated by perceived persuasion intent. Study 4 examines the psychological process underlying these effects.

**STUDY 4**

We propose that slogans generate a reverse priming effect via a nonconscious correction goal. To provide support for our hypothesis, study 4 adopted a goal satiation procedure
(Chartrand et al. 2008; Kawakami, Dovidio, and van Kamp 2007). This procedure involves inserting a goal-relevant task following exposure to slogans but prior to collecting the dependent measure. If slogans produce a reverse priming effect via cognitive construct activation, then the intervening task would sustain this activation and the reverse priming effect would remain. If, as we propose, the mechanism is goal activation, then the intervening task would satisfy the goal and the reverse priming effect would be eliminated or even become a priming effect.

One way to satiate the correction goal is to write about an episode where one resisted an external influence. Similar writing tasks have been successfully used to provide people with credentials associated with actually having performed a behavior (Förster, Liberman, and Higgins 2005). This leads to the prediction that participants who write about an episode of correction in an intervening task should exhibit a priming effect, whereas participants who do not do so should exhibit a reverse priming effect. One additional modification was made to further establish the robustness of our findings. We incorporated both familiar and unfamiliar slogans to examine whether slogan familiarity would moderate the strength of the reverse priming effect.

Method

Participants and Design. A total of 168 undergraduate business students participated in exchange for course credit. The design was a 2 (stimulus familiarity: familiar vs. unfamiliar) by 2 (correction: no correction vs. correction) by 2 (behavior: save vs. neutral) between-subjects design.

Procedure and Stimuli. The procedure and stimuli were adapted from study 1’s slogan condition, with a few amendments. First, in all conditions slogans were paired with the corresponding brands. Second, half of the brands and slogans were unfamiliar, while the other half were familiar (see appendix). Third, study 4 included a correction manipulation. After the
priming manipulation but before the dependent measure, participants in the no correction (control) condition were instructed: “This is a two-minute task that will clear your mind for the next task. Type your current thoughts in the space below.” In the correction condition, participants were instructed: “This is a two-minute task that will clear your mind for the next task. Think about a situation in which your parents asked you to do something and you did the opposite of what they wanted you to do. Type a description of the situation in the space below.”

**Results**

Means are presented in figure 4. Supporting our hypotheses, an ANOVA on the willingness to spend variable showed the three-way interaction was not significant \( F(1, 160) = .46, p > .49 \), but the interaction between the correction and behavior factors was significant \( F(1, 160) = 18.73, p < .01 \). In the no correction (control) condition, willingness to spend was higher for save slogans \( (M = $243.97, SE = 19.19) \) compared to neutral slogans \( (M = $128.51, SE = 22.48; F(1, 160) = 15.26, p < .01; Cohen's d = .89) \). This effect was obtained despite the presence of the brand along with the slogan and was not moderated by slogan familiarity \( F(1, 160) = 1.13, p > .29 \).

In the correction condition, willingness to spend was lower for save slogans \( (M = $88.05, SE = 17.43) \) compared to neutral slogans \( (M = $140.20, SE = 17.96; F(1, 160) = 4.34, p < .05; Cohen's d = .45) \). Again, slogan familiarity did not moderate this effect \( F(1, 160) = .09, p > .75 \).

Study 4’s results point conclusively to motivational (rather than purely cognitive) underpinnings for the reverse priming effect. In particular, the results specifically suggest that
slogans generate a reverse priming effect by activating a goal to correct for bias, as the manipulation designed to satisfy this particular goal eliminated the effect.

In the final study, we probe deeper into the role of consciousness in producing the reverse priming effect. Studies 1-4 show that consumers engage in correction without awareness, but the marketing stimuli eliciting correction in those studies were presented supraliminally. Although consumers were unaware the stimuli prompted correction, they certainly were aware of encountering the stimuli and perhaps even thought about the stimuli as persuasion tactics (indeed, they were even instructed to think this way at times). Study 5 examines whether consumers need to be aware of a tactic for reverse priming effects to occur.

**STUDY 5**

Study 5 tests whether correction occurs among consumers who are prevented from explicitly attending to the tactics they encounter. Most research suggests that consumers must (at a minimum) attend to a source of bias before they can correct for its influence (Forehand and Perkins 2005; Gorn et al. 2008; Hung and Wyer 2008; Kray et al. 2001; Schwarz and Clore 1983). However, some evidence suggests that familiar sources of unwanted persuasion can be responded to without conscious attention (Chartrand et al. 2007). Given that slogans are well-known persuasion tactics, it is plausible that the entire sequence of correction—from perceiving persuasion intent, to motivating correction, to executing corrective behavior—can transpire nonconsciously. The most rigorous test of this possibility is to use a subliminal priming procedure and test for the reverse priming effect among consumers who are unaware that the construct “slogan” is active. Along these lines, we presented the spend, save, or neutral sentences used in study 1 (and shown to cause priming effects), but paired these items with subliminal presentations of either the word “slogan” or “sentence” (in a control condition). If mere
activation of the construct “slogan” is sufficient to trigger correction, then subliminally presenting the word “slogan” should provoke a backlash against the content of the sentences with which “slogan” is paired. Subliminal presentation of the word “sentence” should have no effect; that is, the supraliminally presented sentences should simply produce priming effects. Thus, we predict that subliminally presenting “sentence” or “slogan” should cause priming or reverse priming effects, respectively.

Method

Participants and Design. A total of 229 undergraduate business students participated in exchange for course credit. The design was a 2 (subliminal prime: sentence vs. slogan) by 3 (behavior: saving, spending, neutral) between-subjects design.

Procedure and Stimuli. The procedure and stimuli were similar to those of study 1, but the priming task was modified to accommodate a subliminal presentation procedure (adapted from Chartrand and Bargh 1996). The priming task was described as an “Attention Task” that would test the ability to perform two tasks simultaneously. Participants were instructed to focus their gaze on sentences that appeared one at a time in the center of a computer screen (as in the previous studies, participants were told to learn the sentences for an upcoming recall test). Simultaneously, participants were asked to indicate whether flashes appeared to the left or right by pressing a corresponding key as quickly and accurately as possible. In the slogan (sentence) condition, the flashes were the word “slogan” (“sentence”) presented for 15 ms, followed by a masking string of random letters for 15 ms. The subliminal stimuli appeared in one of the screen’s four quadrants, in randomized order, equidistant from the fixation point, and at angles of 45°, 135°, 225°, and 315°. Chairs were placed approximately 90 cm away from the screen to ensure the priming stimuli fell in the parafoveal region of participants’ visual fields. Each trial
presented a prime word, mask, and sentence. Sentences were taken from the save, spend, or neutral condition of study 1. As in that study, each participant viewed a set of 5 sentences. Participants completed five practice trials and 25 experimental trials, for a total of 6 exposures to each sentence. After the priming task, participants completed the willingness to spend measure in an ostensibly unrelated study.

**Results**

Means are presented in figure 5. An ANOVA on the willingness to spend variable revealed an interaction between subliminal prime and behavior \((F(2, 223) = 12.99, p < .01)\). As predicted, subliminal priming with “sentence” resulted in priming effects \((F(2, 223) = 6.52, p < .01)\). Compared to the neutral condition \((M = $156.82, SE = 13.69)\), willingness to spend was lower in the save condition \((M = $115.94, SE = 13.94; F(2, 223) = 4.37, p < .05; Cohen's d = .41)\), and higher in the spend condition \((M = $211.68, SE = 23.51; F(2, 223) = 4.07, p < .05; Cohen's d = .49)\). Conversely, subliminal priming with “slogan” caused reverse priming effects \((F(2, 223) = 6.79, p < .01)\). Compared to the neutral condition \((M = $151.06, SE = 14.49)\), willingness to spend was higher in the save condition \((M = $197.22, SE = 18.11; F(2, 223) = 3.96, p < .05; Cohen's d = .38)\), and lower in the spend condition \((M = $106.68, SE = 16.62; F(2, 223) = 4.07, p < .05; Cohen's d = .53)\).

**Additional Evidence: Brand Study**

In study 5, the subliminally presented word “slogan” provoked a behavioral backlash against the content of sentences paired with it. As a point of comparison, “sentence” has no such effect. These findings support our argument that slogans activate correction even when their presence is unknown. Yet our argument also states that correction is elicited by slogans and not brands. To lend additional support to this view, study 5’s procedure was replicated using “brand”
and “word” (in the control condition) as subliminal primes. That is, we presented identical supraliminal stimuli and varied only the subliminal stimuli.

The word “brand” or “word” was subliminally presented to 111 participants while spend- or save-related sentences were supraliminally presented. Neither “brand” nor “word” should elicit correction; therefore, both should produce priming effects. Supporting this hypothesis, an ANOVA of willingness to spend showed a main effect of behavior ($F(2, 105) = 10.19, p < .01$), and no interaction between subliminal prime and behavior ($F < 1$). Compared to the neutral condition ($M = $153.02, $SE = 13.69$), willingness to spend was lower in the save condition ($M = $105.38, $SE = 16.89$; $F(1, 105) = 6.08, p < .05$; Cohen's $d = .57$), and higher in the spend condition ($M = $213.96, $SE = 17.17$; $F(1, 105) = 5.07, p < .05$; Cohen's $d = .61$).

***************
Place figure 5 about here
***************

Discussion

Study 5 paired spend- or save-related stimuli with the subliminal prime “slogan” or “sentence.” The former caused a reverse priming effect, while the latter caused a priming effect. An additional study paired spend- or save-related stimuli with the subliminal prime “brand” or “word.” As predicted, both generated priming effects. These data show that even subliminal activation of the construct “slogan” (but not “brand”) influences how consumers perceive and respond to supraliminally presented sentences, with “slogan” triggering correction. Thus, study 5 provides unequivocal evidence that slogans elicit correction without any conscious intervention.

GENERAL DISCUSSION

Five experiments collectively suggest that exposure to marketing tactics can activate concepts and goals related to persuasion that generalize to subsequent consumer decisions and
provoke a behavioral backlash against the tactic. Study 1 established that whereas brands cause a priming effect, slogans cause a reverse priming effect on behavior. Studies 2 and 3 provided evidence that the reverse priming effect is triggered by perceived persuasion intent. Specifically, study 2 showed that slogans produce a priming effect, rather than a reverse priming effect, if consumers contemplate aspects of slogans other than persuasion intent (i.e., creativity). Study 3 showed that perceived persuasion intent mediated the effects and showed that brands produce a reverse priming effect, rather than a priming effect, if consumers are led to perceive brands as persuasion tactics. To ascertain that the reverse priming effect is driven by a nonconscious goal to correct for bias, study 4 showed that among consumers who are given a correction opportunity on an intervening task, slogans no longer produce a reverse priming effect. Finally, to establish that the reverse priming effect requires no conscious intervention, study 5 demonstrated a reverse priming effect following subliminal exposure to the word “slogan.”

**Automatic Correction against Persuasion**

By linking reverse priming effects to the operation of an automatic correction process, our investigation promises to build on the correction literature in several respects. The literature typically reports that correction involves several parts that vary in the extent to which they are consciously mediated. A person need not be consciously aware of the processes used to execute the correction (Schacter and Singer 1962; Schwarz and Clore 1983), nor the precise nature of the behavioral effect (Nisbett and Wilson 1977), but before correction is initiated, a person perceives a stimulus as a potential source of bias (Martin et al. 1990; Wegener and Petty 1995; Wilson and Brekke 1994). As a result, correction tends to occur only when people attend to potentially biasing factors (Gorn et al. 2008; Petty et al. 1998). For instance, Forehand and Perkins (2005) found that attitudes toward celebrities biased participants’ explicit attitudes toward brands paired
with a celebrity voice-over. Only when attention was drawn to this potential source of bias were explicit attitudes toward the brands (over)corrected. Moreover, correction tends to occur only when people perceive a stimulus consciously (Kray et al. 2001). Kray et al. (2001) demonstrated this effect in the context of correcting for stereotype effects on behavior. Only when stereotypes were activated explicitly (vs. implicitly) did participants behave in a stereotype-inconsistent manner. In stark contrast to this literature, we find that correction can occur automatically.

We establish the operation of the correction process indirectly and focus on the unintended consequences it can have for subsequent consumer decisions. Correction was unintentionally (mis)applied to a consumer decision that was unrelated to the slogans that provoked it, and correction was initiated even when the construct “slogan” was activated implicitly. This finding suggests that the entire sequence of correction can occur automatically: the perceptions that trigger correction need not be consciously salient, the goal that drives correction need not be consciously held, and the behavioral backlash that results from correction need not be consciously known. We suggest that correction can occur automatically because it can be based on rich and well-rehearsed persuasion knowledge. Along similar lines, while Kray et al. (2001) suggest that correcting for the biasing effects of stereotypes requires conscious attention, Moskowitz et al. (1999) suggest that individuals can automatically avoid relying on stereotypes if they chronically rehearse their response.

It is quite likely that the triggers and consequences of automatic correction are much broader than the current research suggests. For instance, it is plausible that the reverse priming effect documented here is just one of many consequences that would result from correction. Negative evaluations of the marketing tactics involved, or of persuasion tactics in general, are other potential candidates. It is also plausible that slogans are just one of many persuasion tactics
that could activate automatic correction. For example, flattery in sales contexts is typically met with immediate resistance (Campbell and Kirmani 2000; Chan and Sengupta 2010). Flattery by a salesperson can even produce automatic negative judgments (Main et al. 2007). It is plausible that these automatic negative effects occur because, like slogans, insincere flattery activates an automatic goal to resist persuasion. This view would predict that persuasion tactics activate a nonconscious goal to correct for bias that not only leads to a reverse priming effect on behavior, but also underlies automatic negative effects on attitudes.

**Implications, Limitations, and Future Directions**

The findings reported here raise questions of interest to consumer researchers, marketing practitioners, and policy makers alike. On the research front, we began the current investigation with the belief that marketing needs a theory of priming effects that takes into account marketing’s idiosyncrasies. One key idiosyncrasy is that, unlike most other stimuli in the environment, people often view marketing stimuli as persuasion tactics. This article addresses the consequences this perception has for priming effectiveness and, in doing so, uncovered a key implication for priming research in marketing: priming effects depend on the type of marketing stimuli used. Moving forward, the goal of this line of inquiry would be to understand which types of marketing stimuli (brand names, slogans, endorsers, pricing, salespeople, etc.) have a larger nonconscious influence on behavior and which factors increase or decrease this influence. Additional factors to consider include order of cue exposure (primacy vs. recency), level of cue emotionality (affect-rich vs. affect-poor), or evolutionary-invoking cues (faces vs. figures). Consider the simple act of a consumer entering a supermarket. The number of cues and potential priming effects is overwhelming. Among a cashier’s friendly smile, a well established brand, a
discount sign, which cue dominates and why? Future research is needed to develop a richer framework for priming effects in marketing.

On a practical front, marketing managers have long been aware of the complex factors underlying consumer behavior and have struggled with ways to understand and improve marketing’s effectiveness (Aaker and Lee 2006; Lee and Labroo 2004). As early as 1901, Fogg-Meade advised that “the successful ad is obtrusive. It continually forces itself upon the attention.” For over a century, marketers have heeded this advice. Even in a time of financial crisis, U.S.-based companies spent a whopping 117 billion dollars on advertising in 2009 alone (Nielsen 2010). At first blush, our findings might imply that firms should allocate more resources to developing and maintaining strong brands, rather than spending the roughly $1 million U.S. required to develop a good slogan. But drawing this implication would be premature. Although slogans generally generated consumer backlash, slogans positively impacted behavior among consumers who focused on aspects of slogans unrelated to persuasion intent. Other research has shown positive effects of slogans with double meanings (Dimofte and Yalch 2007), and positive effects of repeated exposure to slogans (Berger and Fitzsimons 2008). Therefore, the current findings do not suggest that slogans have uniformly negative effects.

A possible limitation of the current work is that we do not investigate why people have negative priors about slogans but not about brands. Perhaps it is because it is easier for consumers to understand how slogans are meant to influence them, because slogans have a directive structure that is easier to process and react against, because slogans evoke a narrower range of associations compared to brands, or even because consumers fail to connect to slogans in the same emotional manner that they connect to brands. While this article does not explicitly address the factors underlying consumer perceptions of different marketing tactics, an important
agenda for future research is to uncover the reasons why consumers tend to perceive some marketing tactics as persuasion tactics, and when this perception is more or less salient.

From a consumer welfare perspective, one might wonder how consumers can protect themselves from the influence of marketing stimuli. Since consumers are often unaware of the stimulus, its impact on cognition and behavior, or both, and must combat marketing efforts using minimal cognitive and self-regulatory resources, consumers may appear defenseless against the strongest marketing cues driving their behavior. For a defense mechanism to be of use, it must counteract persuasion attempts in an adaptive and flexible manner. This view is congruent with the notion of a smart unconscious which, among other things, is capable of helping people achieve their goals even when executing novel tasks (Eitam, Hassin, and Schul 2008), coordinating nonverbal behaviors (Dalton, Chartrand, and Finkel 2010), and making decisions in complex environments (Nordgren and Dijksterhuis 2009). Rather than being defenseless, we find that consumers exhibit automatic responses that reflect their perceptions of the persuasion intent of different marketing tactics, even when these perceptions are not salient. Our investigation highlights that a critical factor determining the effectiveness of defense mechanisms, conscious or automatic, is the persuasion knowledge that feeds into them. One lingering and provocative question that speaks to the adaptive nature of correction is whether and to what extent persuasion knowledge can itself be acquired with minimal conscious intervention.
APPENDIX

BRANDS, SLOGANS, SENTENCES, AND LOGOS USED AS STIMULI

Brands in studies 1, 2, and 5: Walmart, KMart, Dollar Store, Ross, Winn Dixie (saving money), Tiffany, Neiman Marcus, Nordstrom, Saks Fifth Avenue, Ann Taylor (spending money), and Publix, JC Penney, Dillard's, Bed, Bath, and Beyond, Barnes and Noble (neutral)

Unfamiliar slogans in studies 1, 2, and 4: Saving keeps you going., Don't worry, we know you value your money., Focus on value, think us!, It is a matter of price., The best deals are always here. (saving money), Fine, good, us., The place for excellence., It is a matter of quality., Because you can afford it., Luxury, you deserve it. (spending money), Time is what you make of it., Think wisely, think us., Play hard, start now., Love everyday of your life., It is a matter of choice. (neutral)

Sentences in studies 1 and 5: He wore cheap attire., The car was economic., We wanted to save., Don't waste your money., He cares about value. (saving money), He wore high-end attire., She bought fine china., Always try to impress., Quality lies above all., He has superior taste. (spending money), He wore blue pants., She used her laptop., Ready for the exam?, Will they clarify this?, Don't conceal your paper. (neutral)


Logos in study 3:
REFERENCES


Priming Effects on Social Behavior,” *Journal of Experimental Social Psychology*, 45 (January), 211-16.


FIGURE 1
STUDY 1 RESULTS
FIGURE 2
STUDY 2 RESULTS

**Persuasion Rating**

<table>
<thead>
<tr>
<th>Priming Tactic</th>
<th>Brains</th>
<th>Slogans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spend</td>
<td>216.7</td>
<td>165.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>125.8</td>
<td>182.3</td>
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</table>

**Creativity Rating**

<table>
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<th>Priming Tactic</th>
<th>Brains</th>
<th>Slogans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spend</td>
<td>217.3</td>
<td>163.3</td>
</tr>
<tr>
<td>Neutral</td>
<td>199.1</td>
<td>136.8</td>
</tr>
</tbody>
</table>
FIGURE 3
STUDY 3 RESULTS

Control

Persuasion Focus
FIGURE 4

STUDY 4 RESULTS

![Bar graph showing willingness to spend with and without correction.](image-url)
FIGURE 5

STUDY 5 RESULTS

Willingness to Spend ($)

Subliminal Prime

Sentences

Slogans

Save
Spend
Neutral

115.9
197.2
211.7
106.7
156.8
151.1
90.0
110.0
130.0
150.0
170.0
190.0
210.0

115.9
197.2
211.7
106.7
156.8
151.1
90.0
110.0
130.0
150.0
170.0
190.0
210.0