The Persuasive Power of Regulatory Nonfit

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Extant literature suggests that people are more persuaded by appeals that fit their regulatory focus than those that do not. This research shows that the reverse is true when people are motivated to process information. Specifically, whereas fit appeals are more persuasive under low-involvement conditions (experiment 1), nonfit appeals are more persuasive under high-involvement conditions (experiments 1 – 3). Further, people pay more attention to nonfit (vs. fit) appeals under high-involvement conditions, and hence are more discerning between strong and weak arguments when presented with nonfit (vs. fit) appeals (experiment 3). Mediation analyses show that heightened engagement while processing nonfit (vs. fit) messages under high-involvement conditions underlies the nonfit effect on persuasion (experiments 2 and 3).

Consider two print advertisements for investment funds. The Fidelity Dividend Growth Fund ad features the headline, "When dividends grow, successful companies can, too," whereas the Vanguard Tax-Managed Funds ad reads, "The average investor loses 2½ percentage points of return each year to taxes. That's a lot of water over the bow." With one ad focusing on growth and the other ad emphasizing losses, which ad will be more effective during an economic downturn?

Based on existing research in regulatory focus theory (Lee and Higgins 2009), one would argue that Vanguard's advertisement highlighting losses should work better in a bear market, when people are more concerned about security than about success. In fact, there is ample evidence in the literature showing that appeals that fit consumers' motivational orientation or self-concept are attended to more closely and elicit greater elaboration; and when the arguments are compelling, a fit message is more persuasive than a nonfit message (Aaker and Lee 2001; Cesario, Grant, and Higgins 2004; Han and Shavitt 1994; Updegraff et al. 2007; Wheeler, Petty, and Bizer 2005). However, there is reason to believe that Fidelity's ad highlighting success—a nonfit appeal during tough economic times—may be more enticing to the serious investor. We propose that when the message arguments are strong and compelling, people are more persuaded by nonfit (vs. fit) appeals under high-involvement conditions, whereas they are more persuaded by fit (vs. nonfit) appeals under low-involvement conditions, as documented in prior research. We further propose that the persuasive power of nonfit appeals under high-involvement conditions is driven by consumers' heightened engagement as the result of encountering information inconsistent with their regulatory concerns (Hastie and Kumar 1979; Srull and Wyer 1989).

In the next sections, we first review the regulatory fit literature, taking special notice of the processes underlying the persuasiveness of fit versus nonfit appeals. Next, we draw from the stereotype literature to provide empirical bases for the premise that people become more engaged and hence are more persuaded by nonfit appeals under high-involvement conditions. Finally, we present three studies designed to test our hypothesis.

PERSUASIVENESS OF REGULATORY FIT INFORMATION

Regulatory focus theory (Higgins 1997) extends the hedonic principle by positing that people with distinct regulatory orientations approach different pleasures and avoid different pains. People with a promotion focus are driven by their need for growth and nurturance; they strive toward attaining their hopes and aspirations, and are motivated to approach gains and avoid nongains. In contrast, people with a prevention focus are driven by their need for safety and security; they endeavor to fulfill their duties and obligations, and are motivated to approach nonlosses and avoid losses. Past studies have shown that people are more strongly influenced by appeals that fit their regulatory focus than those that do not. For instance, Aaker and Lee (2001, experiment 1) found that promotion-focused participants had more favorable attitudes toward a beverage after being presented with product benefits that addressed their concerns for growth (e.g., contains Vitamin C which boosts energy), whereas prevention-focused participants had more favorable attitudes after being presented with product benefits that addressed their concerns for safety (e.g., contains antioxidants which reduce the risk of cancer) (see also Cesario, et al. 2004, experiment 2). Further, participants presented with fit (vs. nonfit) messages could recall more information (experiment 2) and were more discerning between strong and weak arguments

(experiment 3), suggesting that people pay more attention to fit (vs. nonfit) information (see also Evans and Petty 2003; Wheeler, DeMarree, and Petty 2008; Wheeler et al. 2005; Updegraff et al. 2007).

There are several reasons why regulatory fit messages may be more persuasive than regulatory nonfit messages. First, information that is consistent with one's regulatory focus is thought to be more self-relevant than inconsistent information. Thus, message recipients may be more motivated to process fit than nonfit appeals (Wheeler et al. 2008; Updegraff et al. 2007), and the greater attention and more elaborate processing that results may in turn lead to greater persuasion when the message arguments are strong (Chaiken, Liberman, and Eagly 1989; Petty and Cacioppo 1986). Further, because fit messages are conceptually more fluent, they are easier to process and understand than nonfit messages, and this positive experience of processing fluency enhances recipients' attitudes (Labroo and Lee 2006; Lee and Aaker 2004). A third reason why fit messages may be more persuasive is that people "feel right" when they think about topics in a way that sustains their regulatory focus (Higgins 2000, 2002; Lee, Keller, and Sternthal 2010). This feeling right experience in turn intensifies people's reactions, leading to more favorable attitudes when the message arguments are strong, and less favorable attitudes when the message arguments are weak (Aaker and Lee 2001, experiment 3; Cesario et al. 2004, experiment 4).

PERSUASIVENESS OF REGULATORY NONFIT INFORMATION

Recent research suggests that the fit effect on persuasion is moderated by people's motivation to process information. In particular, Wang and Lee (2006) manipulated involvement

and found that when low-involvement participants were presented with both fit and nonfit product information, they actively sought out information that fit their regulatory focus (see also Smith et al. 2007). Low-involvement participants also preferred products that were superior on features that matched their focus. However, when participants were motivated to process information, the fit effect on information search and persuasion dissipated. In another study, Evans and Petty (2003) found that participants were more discerning between strong and weak arguments in appeals that matched (vs. mismatched) their regulatory focus, resulting in increased persuasion when participants were presented with strong fit appeals, but decreased persuasion when they were presented with weak fit appeals. However, this effect was found only among those with a low need for cognition; participants with a high need for cognition were equally discerning between strong and weak arguments when presented with fit versus nonfit appeals (see also Petty and Wegener 1998).We note that although the fit effect on persuasion disappeared when participants in these studies were motivated to process information, neither set of findings documented a nonfit effect under high-involvement conditions.

However, our view is that when people are sufficiently motivated to process information, they will pay more attention to nonfit (vs. fit) information, and hence be more persuaded by nonfit (vs. fit) appeals when the arguments are strong, and be less persuaded when the arguments are weak. We reason that Wang and Lee (2006) did not observe a nonfit effect because their participants were presented with both fit and nonfit information, and any increase in engagement would lead to more elaborate processing of both types of information. Additionally, the null effect among Evans and Petty's (2003) high-need-for-cognition participants could have been due to calibration; that is, their participants might not have been sufficiently motivated to thoroughly process the information at hand.

Preliminary support for a nonfit effect when people are motivated to process information comes from the stereotype literature. In particular, prior studies examining how people process stereotype-consistent versus -inconsistent information show that people generally have better memory for inconsistent information (Rojahn and Pettigrew 1992; Stangor and McMillan 1992). According to Srull and Wyer (1989), people tend to process inconsistent information more deeply in order to reconcile the discrepancy with their existing schema, leading to the formation of stronger associative links between the target schema and inconsistent information in memory. Sherman and colleagues (1998) suggest that people's ability to encode and elaborate on inconsistent information is efficient and adaptive because it enables them to modify existing stereotypes to accommodate new information. Importantly, this more elaborative processing of inconsistent information is most likely to occur when processing ability and motivation are high, as more cognitive resources are needed to reconcile inconsistent than consistent information (Srull and Wyer 1989).

To illustrate, Stangor and Duan (1991) showed that participants who focused on their primary task of forming impressions had better recall for inconsistent behaviors than consistent behaviors. In contrast, those who listened to a concurrent news broadcast during the impression formation task recalled more consistent than inconsistent behaviors (see also Dijksterhuis and van Knippenberg 1995; Macrae, Hewstone, and Griffiths 1993). Additionally, Dijksterhuis and colleagues (1996) found that people with a low need for closure (i.e., those who are willing to consider alternatives and deal with ambiguities) recalled more stereotype-inconsistent than -consistent behaviors, whereas those with a high need for closure recalled more stereotype-consistent than -inconsistent behaviors. Further evidence that people pay more attention to inconsistent information under high-involvement conditions has been reported by Förster,

Higgins, and Werth (2004), who found that when participants were asked to form an impression of a socially relevant target person, they had better memory for gender-stereotype-inconsistent information than -consistent or -neutral information. Thus, it seems that when ability and motivation to process information are high, people pay more attention to and elaborate more on inconsistent than consistent information. To the extent that regulatory nonfit information represents information that is inconsistent with one's motivational orientation, it is likely that people will elaborate more on regulatory nonfit than fit appeals when they are sufficiently motivated to process information.

Referencing the heuristic-systematic model (Chaiken et al. 1989), Maheswaran and Chaiken (1991) also suggest that people are more likely to process inconsistent information more deeply than consistent information under high-involvement conditions (15, footnote 2), although they do not empirically test this prediction. Specifically, they argue that whereas a high-involvement situation should increase the individual's expected confidence in judgment, inconsistent information should decrease actual confidence, thereby leading to greater elaboration of inconsistent (vs. consistent) information. That is, when people do not feel confident about their judgment, they will become more engaged and expend more resources processing the information at hand in an attempt to bolster their confidence. To the extent that nonfit information may invoke feelings of "wrongness" and a lack of confidence, it is likely that people will elaborate more on nonfit than fit information under high-involvement conditions.

Taken together, the aforementioned theorizing and findings suggest that people who are motivated to process information should pay more attention to and elaborate more on nonfit (vs. fit) information. That is, they should be more engaged while processing nonfit (vs. fit) appeals, and in turn be more persuaded when the message arguments are strong. In contrast, and in

accordance with prior regulatory focus research (Lee and Higgins 2009), those who are less motivated to process information should find fit (vs. nonfit) information easier to process and understand, and hence be more persuaded by fit appeals with strong arguments. Therefore, we hypothesize that the effect of regulatory fit on persuasion is moderated by involvement, such that people are more persuaded by nonfit (vs. fit) appeals under high-involvement conditions, but more persuaded by fit (vs. nonfit) appeals under low-involvement conditions.

We present the results of three studies in support of our hypothesis. In particular, we examined the moderating role of involvement in the persuasiveness of regulatory fit versus nonfit appeals in experiment 1. We then explored the mechanism underlying the greater persuasiveness of nonfit appeals in experiment 2, seeking evidence that the regulatory nonfit effect on persuasion is driven by the increased attention involved people devote to processing nonfit messages. Finally, we sought convergent evidence of the heightened processing engagement mechanism in experiment 3 by examining the extent to which involved participants could discern between strong and weak arguments in nonfit versus fit appeals.

EXPERIMENT 1

The objective of experiment 1 was to investigate the role of involvement in the relationship between people's regulatory focus and the persuasiveness of fit and nonfit appeals. Our prediction was that people would be more persuaded by nonfit (vs. fit) appeals under high-involvement conditions, but more persuaded by fit (vs. nonfit) appeals under low-involvement conditions. Thus, a 2 (involvement: high vs. low) × 2 (fit: fit vs. nonfit) × 2 (regulatory focus: promotion vs. prevention) between-subjects design was used.

Method

Participants and Procedure. Two hundred sixty-three undergraduate students from a Midwestern university participated in the experiment for course credit. First, participants were primed with either a promotion or a prevention focus (Higgins et al. 1994; Higgins, Shah, and Friedman 1997). Those in the promotion focus condition were asked to list five current hopes or aspirations as well as three attributes they would ideally like to possess. They were also asked to indicate the extent to which they would ideally like to and actually possessed each attribute. Participants in the prevention focus condition were asked to list five current duties or obligations as well as three attributes they believed they ought to possess. They were also asked to indicate the extent to which they ought to and actually possessed each attribute.

The regulatory focus manipulation was followed by an involvement manipulation. Participants in the high-involvement condition were told that they were part of a very small, select sample and that their responses would be analyzed individually (Wang and Lee 2006). Further, they were told that the experimenter was interested in their "considered reflections" on each question and were instructed to answer the questions based on their "mindful, elaborated reactions" (Briley and Aaker 2006). In contrast, participants in the low-involvement condition were told that they were part of a very large sample and that their responses would be averaged with the others. They were also told that the experimenter was interested in their "initial reactions" to each question and were instructed to answer the questions based on their "natural, automatic impulses."

Next, participants were presented with one of two advertisements for Welch's grape juice (adapted from Aaker and Lee 2001). The promotion fit/prevention nonfit appeal featured the headline, "Get Lots of Energy—Drink Welch's Grape Juice," and emphasized energizing benefits that address growth and advancement concerns (e.g., "contributes to the creation of greater energy"), whereas the prevention fit/promotion nonfit appeal featured the headline, "Keep Arteries Unclogged—Drink Welch's Grape Juice," and emphasized health benefits that address safety and security concerns (e.g., "contributes to healthy cardiovascular function").

After reviewing the appeal, participants evaluated the product using a two-item, seven-point scale (1 = negative, unfavorable; 7 = positive, favorable). They also indicated using five-point scales (1 = not at all, 5 = a lot) the extent to which they had promotion-oriented thoughts (i.e., thoughts about getting energized; thoughts about the energy gained) and prevention-oriented thoughts (i.e., thoughts about staying healthy; thoughts about keeping arteries unclogged) while reading the appeal. Finally, to assess how participants responded to the various measures, they were asked to indicate using similar five-point scales the extent to which they reflected thoroughly on the questions and thought carefully about the questions while evaluating the product. Finally, participants were debriefed, thanked, and dismissed.

Results and Discussion

Manipulation Checks. To assess participants' involvement, we averaged the two involvement items to form an involvement index ($r = .87$). This index was then submitted to a 2 (involvement) $\times$ 2 (fit) $\times$ 2 (regulatory focus) between-subjects analysis of variance (ANOVA). The results revealed the expected main effect of involvement, whereby participants in the high-

involvement condition reported thinking more thoroughly and carefully while responding to the questions than those in the low-involvement condition ($M = 3.42$ vs. 2.82; $F(1, 255) = 24.92$, $p <$ .001; table 1), suggesting that the involvement manipulation was successful. No other effects were significant ($ps > .2$).

Insert table 1 about here

To determine whether participants were sensitive to the different messages in the two appeals, the items assessing participants' promotion-oriented and prevention-oriented thoughts were averaged to form a promotion thought index ($r = .84$) and a prevention thought index ($r = .43$), respectively. These indices were then submitted to a 2 (involvement) × 2 (fit) × 2 (regulatory focus) × 2 (thought) repeated measures ANOVA, with thought as a within-subject factor. The results revealed a marginal effect of involvement, such that involved participants had slightly more thoughts compared to less involved participants ($M = 3.05$ vs. 2.87; $F(1, 255) = 3.16$, $p = .08$). The results also revealed a main effect of thought, such that participants had more prevention-oriented than promotion-oriented thoughts ($M = 3.20$ vs. 2.72; $F(1, 255) = 47.48$, $p <$ .001). Importantly, this effect was qualified by the expected fit × regulatory focus × thought interaction ($F(1, 255) = 131.69$, $p < .001$). To probe this interaction, we conducted separate ANOVAs for promotion- and prevention-oriented thoughts. As expected, participants presented with the promotion (vs. prevention) appeal had more promotion-oriented thoughts ($M = 3.08$ vs. 2.32; $F(1, 259) = 28.48$, $p < .001$), but fewer prevention-oriented thoughts ($M = 2.70$ vs. 3.77; $F(1, 259) = 83.44$, $p < .001$); whether they were primed with a promotion or prevention focus did not matter. No other effects were significant ($ps > .1$).

Brand Attitude. To test our hypothesis that involvement moderates the fit effect on persuasion, a brand attitude index was created by averaging the two attitude items ($r = .91$). The results of a 2 (involvement) × 2 (fit) × 2 (regulatory focus) between-subjects ANOVA yielded the predicted involvement × fit interaction ($F(1, 255) = 11.91$, $p = .001$; figure 1). To examine the effectiveness of fit and nonfit appeals under high- and low-involvement conditions, we conducted separate ANOVAs for each of the involvement conditions. For participants in the high-involvement condition, a 2 (fit) × 2 (regulatory focus) ANOVA yielded a single main effect of fit, such that their attitudes were more favorable when they were presented with nonfit (vs. fit) appeals ($M = 5.71$ vs. 5.27; $F(1, 131) = 4.28$, $p < .05$). This is consistent with our prediction that people are more persuaded by nonfit (vs. fit) information when they are sufficiently motivated to process information. For participants in the low-involvement condition, the 2 × 2 ANOVA also yielded a significant effect of fit, but in the opposite direction. Consistent with prior regulatory fit findings, participants' attitudes were more favorable when they were presented with fit (vs. nonfit) appeals ($M = 5.65$ vs. 4.96; $F(1, 124) = 7.57$, $p = .01$). No other effects were significant (ps > .2).

Insert figure 1 about here

These results provide support for our hypothesis that the persuasiveness of fit versus nonfit information depends on the extent to which people are motivated to process information. Whereas participants were more persuaded by fit appeals under low-involvement conditions, as consistent with most regulatory fit studies (Lee and Higgins 2009), they were more persuaded by nonfit appeals under high-involvement conditions. We note with interest that participants' involvement ratings were highest in the high-involvement nonfit condition (table 1). These

results provide suggestive evidence that heightened engagement underlies the regulatory nonfit effect. However, because the involvement items were developed to assess response involvement (i.e., how participants responded to the questions) rather than processing engagement (i.e., how they processed the message), we included additional items in experiments 2 and 3 to assess participants' engagement while they were processing the appeal. Our goal in the next two studies was to provide convergent evidence of the nonfit effect and to further explore the mechanism underlying this effect.

EXPERIMENT 2

The objective of experiment 2 was to test the robustness of the regulatory nonfit effect on persuasion and to elucidate the process by which strong nonfit appeals lead to increased persuasion under high-involvement conditions. More specifically, we sought to replicate the regulatory nonfit effect observed in experiment 1 using a different sample from Slovenia, and to provide more direct evidence that nonfit appeals prompt greater processing engagement. Because there is ample evidence in the literature for the regulatory fit effect on persuasion under low-involvement conditions, we focused our investigations on the effects of regulatory nonfit (vs. fit) under high-involvement conditions, and asked all participants to engage in detailed processing of the information. We also included measures to assess how participants processed the appeal rather than how they responded to the questions as in experiment 1. Thus, a 2 (fit: fit vs. nonfit) × 2 (regulatory focus: promotion vs. prevention) between-subjects design was used. We predicted that our involved participants would pay more attention to nonfit (vs. fit) appeals, and that

heightened processing engagement would in turn lead to more favorable attitudes toward the nonfit target.

Method

Participants and Procedure. One hundred seventeen students from the University of Ljubljana in Slovenia participated in the experiment for course credit. Students in Slovenia are very respectful toward their professors and take their classroom experience very seriously. All participants were told by their professor that the study was very important and were instructed to pay close attention. They were then primed with a promotion or prevention focus (Higgins et al. 1994; Higgins et al. 2001). Participants in the promotion focus condition were asked to describe three current aspirations as well as a situation when they felt they had made progress toward being successful in life. Participants in the prevention focus condition were asked to describe three current responsibilities as well as a situation when being careful helped them avoid getting into trouble. Next, participants were presented with one of two advertisements for Welch's grape juice. The promotion fit/prevention nonfit appeal was the same as that used in experiment 1. We modified the headline of the prevention fit/promotion nonfit appeal by using a loss frame ("Don't Get Clogged Arteries") rather than the nonloss frame used in experiment 1 ("Keep Arteries Unclogged") to strengthen the effectiveness of the appeal (Idson, Liberman, and Higgins 2000; Lee and Aaker 2004).

After reviewing the appeal, participants evaluated the product using a two-item, seven-point scale (1 = negative, unfavorable; 7 = positive, favorable). They also indicated using seven-point scales (1 = not at all, 7 = very much) the extent to which they had promotion-oriented

thoughts (i.e., thoughts that Welch's Grape Juice contributes to energy) and prevention-oriented thoughts (i.e., thoughts that Welch's Grape Juice contributes to healthy cardiovascular functioning) while reading the appeal. Finally, to gauge participants' processing engagement while reviewing the appeal, we asked them to indicate how they processed the message using a two-item, seven-point scale (1 = not at all involved, not at all interested, 7 = very involved, very interested). They were then debriefed, thanked, and dismissed.

Results and Discussion

Manipulation Check. To assess whether participants were sensitive to the different messages in the two appeals, a 2 (fit) × 2 (regulatory focus) × 2 (thought) repeated measures ANOVA was conducted, with thought as a within-subject factor. The results revealed a main effect of thought, such that participants had more prevention-oriented than promotion-oriented thoughts ($M = 4.58$ vs. 4.09; $F(1, 113) = 30.66$, $p < .001$). The main effect of fit was also significant, such that participants presented with nonfit appeals reported having more thoughts overall compared to those presented with fit appeals ($M = 4.82$ vs. 3.90; $F(1, 113) = 13.80$, $p < .001$). These main effects were qualified by a fit × thought interaction ($F(1, 113) = 5.62$, $p < .05$). To probe this interaction, we conducted separate ANOVAs for promotion- and prevention-oriented thoughts. Follow-up analyses indicated that the difference between nonfit and fit appeals was greater for promotion-oriented thoughts ($M = 4.76$ vs. 3.48; $F(1, 115) = 23.32$, $p < .001$; $d = .89$, $\eta^2 = .17$) than for prevention-oriented thoughts ($M = 4.87$ vs. 4.32; $F(1, 115) = 4.31$, $p < .05$; $d = .38$, $\eta^2 = .04$). Finally, the results revealed the expected three-way interaction ($F(1, 113) = 39.04$, $p < .001$). Follow-up ANOVAs conducted for each type of thought

separately showed that participants presented with the promotion (vs. prevention) appeal had more promotion-oriented thoughts (M = 4.37 vs. 3.51; $F(1, 113)$ = 8.66, p < .01), but fewer prevention-oriented thoughts (M = 4.28 vs. 5.18; $F(1, 113)$ = 11.43, p = .001). The appeal type × regulatory focus interaction was also significant for both types of thoughts (promotion-oriented thoughts, $F(1, 113)$ = 19.13, p < .001; prevention-oriented thoughts, $F(1, 113)$ = 4.08, p = .05), suggesting that participants had more thoughts when they were presented with nonfit (vs. fit) messages. No other effects were significant (ps > .5).

Brand Attitude. To examine the effect of regulatory nonfit under high involvement, we first averaged the two attitude items to form a brand attitude index (r = .74). Replicating the nonfit effect observed under high-involvement conditions in experiment 1, the results of a 2 (fit) × 2 (regulatory focus) between-subjects ANOVA yielded a single main effect of fit, such that participants were more persuaded by nonfit than fit appeals (M = 5.02 vs. 4.49; $F(1, 113)$ = 7.50, p = .01; figure 2 and table 1). No other effects were significant (ps > .1).

Insert figure 2 about here

Processing Engagement. To test the hypothesis that participants were more engaged while processing nonfit than fit appeals, we averaged the two processing engagement items to form a processing engagement index (r = .75). The results of a 2 (fit) × 2 (regulatory focus) between-subjects ANOVA revealed the predicted main effect of fit, such that participants were more engaged while processing nonfit than fit appeals (M = 4.25 vs. 3.50; $F(1, 113)$ = 13.00, p < .001). The analysis also yielded a main effect of regulatory focus, such that promotion-primed

participants were more engaged than prevention-primed participants ($M = 3.96$ vs. 3.75; $F(1, 113) = 4.00$, $p = .05$). The interaction was not significant ($p = .71$).

Mediation Analysis. To gain more insight into the nonfit effect, we conducted mediation analyses to investigate the role that processing engagement plays in the persuasiveness of nonfit appeals (Baron and Kenny 1986). First, the result of a regression analysis with fit, regulatory focus, and the interaction term as predictors of brand attitude revealed a main effect of fit ($\beta = -.27$, $t(113) = -2.74$, $p = .01$). A second regression showed that the effect of fit on processing engagement was significant ($\beta = -.34$, $t(113) = -3.61$, $p < .001$). Finally, when processing engagement was also included in the model as a predictor of brand attitude, the effect of fit became nonsignificant ($\beta = -.14$, $t(112) = -1.48$, $p = .14$), while the effect of processing engagement was significant ($\beta = .36$, $t(112) = 3.99$, $p < .001$). A Sobel test further confirmed that processing engagement mediated the nonfit effect on brand attitude ($z = 2.68$, $p = .01$; Sobel 1982).

These results provide convergent evidence that nonfit appeals are more persuasive than fit appeals when people are motivated to process information. Results from experiments 1 and 2 show that the nonfit effect is robust across participants from two different countries. More importantly, the mediation results provide evidence that heightened engagement while processing nonfit (vs. fit) appeals underlies the regulatory nonfit effect on persuasion. To garner more confidence in our finding that increased processing engagement mediates the regulatory nonfit effect, we conducted experiment 3 to examine the extent to which involved participants could discern between strong and weak nonfit (vs. fit) appeals.

EXPERIMENT 3

The objective of experiment 3 was to provide further support for our hypothesis that people who are motivated to process information become more engaged when processing regulatory nonfit (vs. fit) messages. We reasoned that if people pay more attention to nonfit information under high-involvement conditions, then they should be more sensitive to differences in argument strength when presented with nonfit (vs. fit) appeals. Thus, we manipulated argument strength in this study. As in experiment 2, we induced high involvement among all participants. We then presented them with a fit or nonfit appeal containing either strong or weak arguments. If regulatory nonfit (vs. fit) messages indeed elicit more attention from people who are motivated to process information, then our participants should be more engaged while processing nonfit (vs. fit) appeals, and hence be more sensitive to differences in argument strength when presented with nonfit (vs. fit) appeals. That is, they should be more persuaded by nonfit (vs. fit) appeals when the message arguments are strong, but be less persuaded by nonfit (vs. fit) appeals when the message arguments are weak. Results showing greater discernment between strong and weak nonfit (vs. fit) appeals would provide clear evidence that the persuasiveness of regulatory nonfit appeals under high-involvement conditions stems from people's heightened engagement while processing nonfit (vs. fit) information. We used a 2 (argument strength: strong vs. weak) × 2 (fit: fit vs. nonfit) × 2 (regulatory focus: promotion vs. prevention) between-subjects design to test these predictions.

Method

Participants and Procedure. Two hundred twenty-three undergraduate students from a Midwestern university received $8 for participating in a consumer behavior study. First, participants were primed with a promotion or prevention focus. Those in the promotion focus condition were asked to write about their current hopes and aspirations, and the accomplishments they would ideally like to achieve at this point in their lives, whereas those in the prevention focus condition were asked to write about their current duties and obligations, and the responsibilities they felt they ought to meet at this point in their lives (Higgins et al. 1994). Next, all participants were given a cover story designed to induce high involvement (adapted from Petty, Cacioppo, and Schumann 1983). Specifically, they were told that the experimenter was interested in their opinion of an advertising campaign for a sunscreen lotion, which was targeted exclusively to college students and would be launched in the local market in just a few months. Further, participants were told that the experimenter was collecting data from only a few select groups and that their feedback would be used in the development of the campaign.

Participants were then presented with one of four advertising appeals for SunSkin, a fictitious brand of sunscreen lotion (adapted from Lee and Aaker 2004). The promotion fit/prevention nonfit appeals featured the headline, "Enjoy Life; Bask in the warm rays of the sun, feeling completely happy," emphasized the positive outcomes one might gain by using the product, and closed with, "Enjoy Life. SUNSKIN™." The prevention fit/promotion nonfit appeals featured the headline, "Be Safe; Bask in the warm rays of the sun, feeling completely relaxed," emphasized the negative outcomes one might avoid by using the product, and closed with, "Be Safe. SUNSKIN™." Argument strength was manipulated by varying the quality of support backing the product claims (see appendix for the body copy contained within each appeal). For example, the strong promotion appeal included the statement, "SunSkin contains a

liposome technology that works to moisturize the skin, leaving it soft and fresh after an active day in the sun," whereas the weak version of this claim read, "SunSkin relies on the latest technology to moisturize the skin and keep it soft even after an active day in the sun." Similarly, the strong prevention appeal included the statement, "SunSkin contains a liposome technology that works to protect the skin, preventing premature aging due to harmful UVA-UVB rays," whereas the weak version of this claim read, "SunSkin relies on the latest technology to protect the skin, making you feel safe after a relaxing day in the sun."

After reviewing the appeal, participants evaluated the product using a two-item, seven-point scale (1 = negative, unfavorable; 7 = positive, favorable). They then evaluated the strength of the advertisement using a three-item, seven-point scale (1 = not persuasive, not convincing, not effective; 7 = persuasive, convincing, effective). Next, participants indicated using seven-point scales (1 = not at all, 7 = a lot) the extent to which they thought the promotion-focused claims (i.e., SunSkin helps to achieve a nice tan and moisturize the skin) and prevention-focused claims (i.e., SunSkin helps to avoid sunburns and prevent premature aging) were credible. Finally, participants reported how engaged they were while processing the appeal using a six-item, seven-point scale (1 = not at all engaged, not at all interested, skimmed it quickly, paid little attention, found the information not at all relevant, found the information not at all important; 7 = very engaged, very interested, read it carefully, paid a lot of attention, found the information very relevant, found the information very important). They were then debriefed, thanked, and dismissed.

Results and Discussion

Manipulation Checks. To examine whether the argument strength manipulation was successful, an argument strength index was created by averaging the three argument strength items ($\alpha = .95$). The results of a 2 (argument strength) × 2 (fit) × 2 (regulatory focus) between-subjects ANOVA yielded a single main effect of argument strength. As expected, participants found the strong appeals to be more effective than the weak appeals ($M = 3.84$ vs. 2.44; $F(1, 214) = 52.06$, $p < .001$). No other effects were significant ($ps > .2$).

To determine whether participants were sensitive to the different claims made in the promotion- and prevention-oriented appeals, a promotion claim index and a prevention claim index were created by averaging the two promotion claim items ($r = .42$) and the two prevention claim items ($r = .56$), respectively. These indices were then submitted to a 2 (argument strength) × 2 (fit) × 2 (regulatory focus) × 2 (claim) repeated measures ANOVA, with claim as a within-subject factor. As expected, the main effect of argument strength was significant, such that participants found the claims in the strong appeals to be more credible than those in the weak appeals ($M = 4.27$ vs. 3.47; $F(1, 215) = 36.15$, $p < .001$). The fit × regulatory focus × claim interaction was also significant ($F(1, 215) = 80.62$, $p < .001$). To probe this interaction, we conducted separate ANOVAs for promotion- and prevention-oriented claims. As expected, participants presented with the promotion (vs. prevention) appeal perceived the promotion-oriented claims to be more credible ($M = 4.54$ vs. 3.53; $F(1, 219) = 35.00$, $p < .001$), but the prevention-oriented claims to be less credible ($M = 3.27$ vs. 4.31; $F(1, 219) = 27.78$, $p < .001$); whether they were primed with a promotion or prevention focus did not matter. These results suggest that participants were sensitive to the different benefits highlighted in the advertisement. Other effects which were significant but not central to our hypotheses include a main effect of claim, such that participants found the promotion-oriented claims to be more credible than the

prevention-oriented claims (M = 4.02 vs. 3.80; $F(1, 215)$ = 6.00, p < .05), as well as an argument

strength × claim interaction ($F(1, 215)$ = 10.44, p = .001). Follow-up repeated measures

ANOVAs for each argument strength condition indicated that participants found the promotion-

oriented claims to be more credible than the prevention-oriented claims only when the appeals

were weak (M = 3.78 vs. 3.17; $F(1, 100)$ = 9.08, p < .01), but not when they were strong (M =

4.22 vs. 4.33; F < 1). Finally, the results revealed a significant argument strength × fit × claim

interaction ($F(1, 215)$ = 5.92, p < .05). In the nonfit condition, participants perceived the

promotion-oriented claims to be more credible than the prevention-oriented claims when the

arguments were weak (M = 3.74 vs. 2.90; $F(1, 46)$ = 6.71, p = .01), but the opposite was

observed when the arguments were strong (M = 4.06 vs. 4.54), $F(1, 58)$ = 3.45, p = .07). In the fit

condition, participants found the promotion-oriented claims to be more credible than the

prevention-oriented claims ($F(1, 115)$ = 3.44, p = .07), regardless of whether they were presented

with weak (M = 3.81 vs. 3.41) or strong arguments (M = 4.37 vs. 4.13).

Brand Attitude. To test the hypothesis that people who are motivated to process

information are more engaged while processing nonfit (vs. fit) messages, we examined

participants' attitudes toward the brand to gauge their ability to discern between strong and weak

arguments contained in nonfit (vs. fit) appeals. We first averaged the two brand attitude items to

form a brand attitude index (r = .90). The results of a 2 (argument strength) × 2 (fit) × 2

(regulatory focus) between-subjects ANOVA revealed a main effect of argument strength, such

that participants presented with strong appeals evaluated the brand more favorably than those

presented with weak appeals (M = 5.04 vs. 3.04; $F(1, 215)$ = 128.83, p < .001). More central to

this research, the results also revealed the predicted argument strength × fit interaction ($F(1, 215)$

= 3.84, p = .05). Separate ANOVAs for each fit condition showed that those presented with nonfit appeals were more discerning between strong and weak arguments (M = 5.27 vs. 2.91; $F(1, 104)$ = 75.41, p < .001; d = 1.71, η^2 = .42) than those presented with fit appeals (M = 4.83 vs. 3.16; $F(1, 115)$ = 53.32, p < .001; d = 1.38, η^2 =.32; figure 3 and table 2). No other effects were significant (ps > .3).

Insert figure 3 about here

Insert table 2 about here

Processing Engagement. We predicted that participants would be more engaged while processing nonfit than fit information. To assess participants' processing engagement, we averaged the processing engagement items to form a processing engagement index (α = .77). The results of a 2 (argument strength) × 2 (fit) × 2 (regulatory focus) between-subjects ANOVA revealed a main effect of argument strength, such that participants were more engaged while processing strong than weak appeals (M = 4.92 vs. 4.47; $F(1, 215)$ = 11.79, p = .001). More central to this research, the results showed that participants were more engaged while processing nonfit than fit appeals (M = 4.84 vs. 4.59; $F(1, 215)$ = 3.15, p = .08), although the difference was only marginally significant. No other effects were significant (ps > .3).

Mediation Analysis. To gain further confidence in our hypothesis that heightened engagement mediated the nonfit effect on brand attitude, we conducted separate mediation analyses for each of the argument strength conditions. For participants presented with strong appeals, the result of a regression analysis with fit, regulatory focus, and the interaction term as

predictors of brand attitude revealed a main effect of fit (β = -.20, t(118) = -2.18, p < .05). A second regression showed that the effect of fit on processing engagement was significant (β = -.19, t(118) = -2.14, p < .05). Finally, when processing engagement was also included in the model as a predictor of brand attitude, the effect of fit became marginally significant (β = -.15, t(117) = -1.69, p = .09), while the effect of processing engagement was significant (β = .24, t(117) = 2.62, p = .01). A Sobel test further confirmed that processing engagement partially mediated the nonfit effect on brand attitude when the message arguments were strong (z = 1.65, p = .10; Sobel 1982). For participants presented with weak appeals, similar analyses revealed a nonsignificant effect of fit on brand attitude and processing engagement (ts < 1).No further analyses were conducted.

The results of experiment 3 provide convergent evidence that heightened processing engagement underlies the regulatory nonfit effect on persuasion under high-involvement conditions. We reasoned that if people become more engaged while processing nonfit (vs. fit) information (experiment 2), then they should be more sensitive to differences in argument strength when processing nonfit (vs. fit) appeals. Indeed, our results showed that not only did participants report being more engaged while processing nonfit (vs. fit) information, they also developed more favorable attitudes toward the nonfit target when the message arguments were strong, and less favorable attitudes when the message arguments were weak. This greater discernment of argument strength for nonfit (vs. fit) appeals provides further support for our hypothesis that people who are motivated to process information pay more attention to and elaborate more on information that is inconsistent (vs. consistent) with their regulatory focus. Further, these results show that, depending on the strength of the arguments contained within the appeal, nonfit messages can have positive or negative consequences for persuasion.

GENERAL DISCUSSION

Our results across three studies provide convergent support for the moderating role of involvement in regulatory focus-based persuasion and for the persuasiveness of regulatory nonfit appeals. Whereas strong appeals that fit the individual's regulatory focus were more persuasive under low-involvement conditions (experiment 1; see also Evans and Petty 2003; Wang and Lee 2006), strong nonfit appeals were more persuasive under high-involvement conditions (experiments 1-3). We showed that when participants were motivated to process information, they attended more closely to appeals that mismatched (vs. matched) their regulatory focus (experiments 2 and 3), and in turn responded more favorably to nonfit appeals when the message arguments were strong, and less favorably when the message arguments were weak (experiment 3).

Our findings contribute to the regulatory focus literature by providing the first evidence that regulatory nonfit appeals may be more persuasive than regulatory fit appeals when people are motivated to process information. Our involved participants processed nonfit (vs. fit) information more deeply (experiment 2) and hence were more discerning of argument quality when presented with nonfit (vs. fit) appeals (experiment 3). These results are contrary to Aaker and Lee's (2001, experiment 3) finding that message recipients were better able to discriminate between strong and weak arguments when presented with fit (vs. nonfit) appeals (see also Evans and Petty 2003). The design of Aaker and Lee's experiment was similar to our experiment 3 except for one key difference: whereas we included a manipulation designed to induce high involvement, such an induction was absent from their study. Given the procedure of their study

and the subject population, it seems likely that their participants (as well as those in other regulatory fit studies) were not particularly motivated to process information—a highly plausible conjecture as we were able to replicate their finding among our low-involvement participants in experiment 1.

Our results are also consistent with findings reported in the matching effects literature. In particular, Millar (1992) found that when participants held an affect-based attitude, those who had more experience with the target were more persuaded by a rational (i.e., mismatched) message, whereas those who had less experience with the target were more persuaded by an emotional (i.e., matched) message. Experienced (inexperienced) participants also spent more time reading the mismatched (matched) message. One may argue that the experienced participants were more motivated and better able to process information related to the target than the inexperienced participants; hence, Millar's results are consistent with our theorizing and findings that people who are motivated to process information pay more attention to and are more persuaded by messages that mismatch (vs. match) their regulatory focus, whereas those who are less motivated pay more attention to and are more persuaded by messages that match (vs. mismatch) their focus. Thus, future research could explore the generalizability of the moderating effect of involvement to other domains in which matching effects have been studied, such as self-concepts and cross-cultural research.

Heightened Engagement from Regulatory Fit versus Nonfit

Our results showing that participants were more engaged while processing nonfit (vs. fit) appeals seem to be in direct contradiction with regulatory fit theory (Higgins 2005), which posits

that people become more engaged when their goal pursuit strategy matches their regulatory focus. Specifically, Higgins contends that when promotion-focused people pursue goals using eager strategies or when prevention-focused people pursue goals using vigilant strategies, they experience regulatory fit. Further, this experience of regulatory fit "creates value by increasing strength of engagement" (212). The implication is that people will become more engaged when they encounter messages that match (vs. mismatch) their regulatory focus, and hence will elaborate more on and be more persuaded by fit (vs. nonfit) appeals. To the contrary, our results show that when people are highly involved, it is nonfit rather than fit appeals that prompt heightened engagement, which in turn leads to greater persuasion.

Higgins' more recent theorizing may offer a way to reconcile this apparent contradiction (Higgins and Scholer 2009). According to regulatory engagement theory (Higgins 2006), engagement strength may arise from several sources, one of which is regulatory fit. Another source of increased engagement comes from countering opposing forces during the process of goal pursuit. Because regulatory nonfit information is inconsistent with how people naturally think about certain issues, nonfit messages are more difficult to process and understand than fit messages (Lee and Aaker 2004). It is possible that processing difficulty may be perceived as an opposing force when people are motivated to process information. Thus, they may be more willing to expend cognitive resources to counter this opposing force and make sense of the regulatory nonfit information, and in turn become more engaged (Lee 2009).

Incidental versus Integral Sources of Regulatory (Non)fit

Our findings showing heightened engagement and greater discernment between strong and weak arguments when participants were presented with nonfit (vs. fit) appeals bear some similarities to recent research documented by Koenig and colleagues (Koenig et al. 2009). In particular, they found that the subjective experience of regulatory nonfit prompted more elaborate processing of persuasive appeals, resulting in greater discrimination between strong and weak arguments and less reliance on heuristic cues such as source expertise. We note that Koenig et al. intentionally designed their appeals to be of low relevance to the participants (e.g., comprehensive exam policies being considered by a different university; Petty and Cacioppo 1979, 1984), which made their participants more similar to our low-involvement participants in experiment 1. Thus, their results showing regulatory nonfit-induced elaboration under low-involvement conditions might at first glance seem contradictory to our hypothesis and findings that regulatory nonfit information prompts more elaborative processing under high-involvement conditions.

However, an important distinction between Koenig et al.'s (2009) and our studies lies in the manner in which regulatory (non)fit was induced. Whereas we manipulated integral regulatory fit within the persuasion context (i.e., the message was the source of the (non)fit experience), Koenig and colleagues manipulated incidental regulatory fit outside of the persuasion context (i.e., the message was independent of the (non)fit experience; see also Vaughn et al. 2006). These two fit induction methods are thought to have divergent implications for information processing (Cesario, Higgins, and Scholer 2008). In particular, incidental nonfit experiences produce free-floating feelings of wrongness, which may signal the presence of a problem in the environment and thus prompt message recipients to scrutinize persuasive appeals of all types more closely (Schwarz 2001). Importantly, the effects of this increased scrutiny

should be most pronounced when people are not already motivated to process the appeals (i.e.,

under low-involvement conditions). Hence, participants experiencing incidental regulatory nonfit

were more discerning between strong and weak arguments under low-involvement conditions

(Koenig et al. 2009; Vaughn et al. 2006). However, in the case of integral nonfit, it is the

inconsistency of the information that prompts increased elaboration when people are sufficiently

motivated to process information (i.e., under high-involvement conditions). That is, nonfit

information is elaborated more deeply when people's motivation to process information is high

because of their strong desire to resolve the incongruity, whereas nonfit information is filtered

out when people's motivation to process information is low because they are reluctant to expend

the additional cognitive effort required to process inconsistent information (Wang and Lee 2006;

Smith et al. 2007). An interesting avenue for future research would be to examine more

systematically the difference between incidental and integral regulatory (non)fit effects on

persuasion and the moderating role of involvement in these effects.

Conclusion

These findings suggest that people are strategic in their use of regulatory focus as a filter.

Depending on the amount of cognitive effort they wish to expend, people pay selective attention

to regulatory nonfit (vs. fit) appeals, and in turn become more or less persuaded by them as a

function of the quality of the message arguments. In particular, we show that when people are

motivated to process information, they pay more attention to regulatory nonfit information that is

more difficult to process and understand, and thus are more persuaded by strong nonfit appeals.

In contrast, when processing motivation is low, people pay more attention to regulatory fit

information that is easier to process and understand, and thus are more persuaded by strong fit appeals (Wang and Lee 2006). Returning to the two investment fund print ads mentioned in the introduction, our view is that the Fidelity ad emphasizing success is more likely to catch the eye of serious investors in a bear market when financial security is the predominant concern, whereas the Vanguard ad emphasizing security is more likely to capture their attention in a bull market when financial success is foremost in their minds. Further, the reverse should hold true for more casual consumers who are not as involved in the product category.

Future research could consider whether too much nonfit may attenuate or even reverse the regulatory nonfit effect on persuasion. Consider the case of home security systems. These systems are designed to address people's needs for safety and security, to protect them against the threat of damage or loss, and to provide them with peace of mind—a decidedly prevention-oriented enterprise. Therefore, touting the promotion-oriented benefits of such a product is unlikely to carry much weight with message recipients. Likewise, promoting the moisturizing and body-enhancing benefits of a shampoo formulated to kill lice is likely a futile endeavor, even among those highly motivated to process the appeal. This notion of too much nonfit is consistent with findings from the schema congruity literature showing that extreme incongruity has a negative influence on persuasion (Mandler 1982; Meyers-Levy and Tybout 1989). More systematic investigations of higher and lower levels of fit and nonfit await future research.

Appendix

Advertisement Body Copy as a Function of Appeal Type and Argument Strength, Experiment 3

Promotion Appeals

Strong Arguments. SunSkin™ is a new all-natural sun treatment containing pure, micronized zinc oxide. As a result of its unique patented formula, you can wear SunSkin longer than any other sunscreen without reapplying, even after going in the water. With SunSkin you will achieve a nice, even tan, maximizing the benefits of your time in the sun. Plus, SunSkin contains a liposome technology that works to moisturize the skin, leaving it soft and fresh after an active day in the sun. (79 words)

Weak Arguments. SunSkin™ is a new sun treatment containing many different ingredients. Because of its special formula, you can wear SunSkin wherever you go. Just apply SunSkin to your face and body before going into the sun and reapply every 15 minutes. With SunSkin, you may achieve a nice tan and enjoy your time in the sun. Plus, SunSkin relies on the latest technology to moisturize the skin and keep it soft even after an active day in the sun. (78 words)

Prevention Appeals

Strong Arguments. SunSkin™ is a new all-natural sun treatment containing pure, micronized zinc oxide. As a result of its unique patented formula, you can wear SunSkin without

worry that it will irritate your skin, even for those with sensitive skin. With SunSkin you will avoid painful sunburns, minimizing the risks of your time in the sun. Plus, SunSkin contains a liposome technology that works to protect the skin, preventing premature aging due to harmful UVA-UVB rays. (74 words)

  Weak Arguments. SunSkin™ is a new sun treatment containing many different ingredients. Because of its special formula, the risk of skin irritation has been somewhat reduced. Just apply SunSkin to your face and body before going into the sun and reapply every 15 minutes. With SunSkin you may minimize the chance of painful sunburns. Plus, SunSkin relies on the latest technology to protect the skin, making you feel safe after a relaxing day in the sun. (74 words)

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Table 1

The Effects of Involvement, Fit, and Regulatory Focus on Brand Attitude, Involvement and

Processing Engagement (Experiments 1 and 2)

	Experiment 1				Experiment 2	
	Low involvement		High involvement		High involvement	
Regulatory focus	Fit appeal	Nonfit appeal	Fit appeal	Nonfit appeal	Fit appeal	Nonfit appeal
Brand attitude						
Promotion	5.56 (1.30)	5.05 (1.33)	5.22 (1.28)	5.59 (1.14)	4.63 (1.09)	5.24 (1.48)
Prevention	5.77 (1.02)	4.88 (1.91)	5.32 (1.42)	5.83 (1.05)	4.25 (1.21)	4.92 (1.12)
Involvement						
Promotion	2.88 (1.02)	2.90 (1.21)	3.36 (0.81)	3.44 (0.89)		
Prevention	2.82 (1.07)	2.69 (0.97)	3.24 (1.00)	3.65 (0.81)		
Processing engagement						
Promotion					3.71 (1.36)	4.53 (1.33)
Prevention					3.11 (1.31)	4.12 (1.15)

NOTE.—Standard deviations are indicated in parentheses.

Table 2

The Effects of Argument Strength, Fit, and Regulatory Focus on Brand Attitude and Processing

Engagement (Experiment 3)

	High involvement			
	Strong arguments		Weak arguments	
Regulatory focus	Fit appeal	Nonfit appeal	Fit appeal	Nonfit appeal
Brand attitude				
Promotion	4.71	5.37	3.27	3.13
	(1.01)	(1.13)	(1.17)	(1.56)
Prevention	4.94	5.16	3.05	2.70
	(0.95)	(1.37)	(1.73)	(1.54)
Processing engagement				
Promotion	4.68	5.00	4.37	4.52
	(1.08)	(0.85)	(1.01)	(0.98)
Prevention	4.81	5.21	4.46	4.52
	(0.93)	(0.85)	(1.15)	(0.96)

NOTE.—Standard deviations are indicated in parentheses.

Figure Legend

FIGURE 1

BRAND ATTITUDE AS A FUNCTION OF INVOLVEMENT, FIT, AND REGULATORY

FOCUS (EXPERIMENT 1)

FIGURE 2
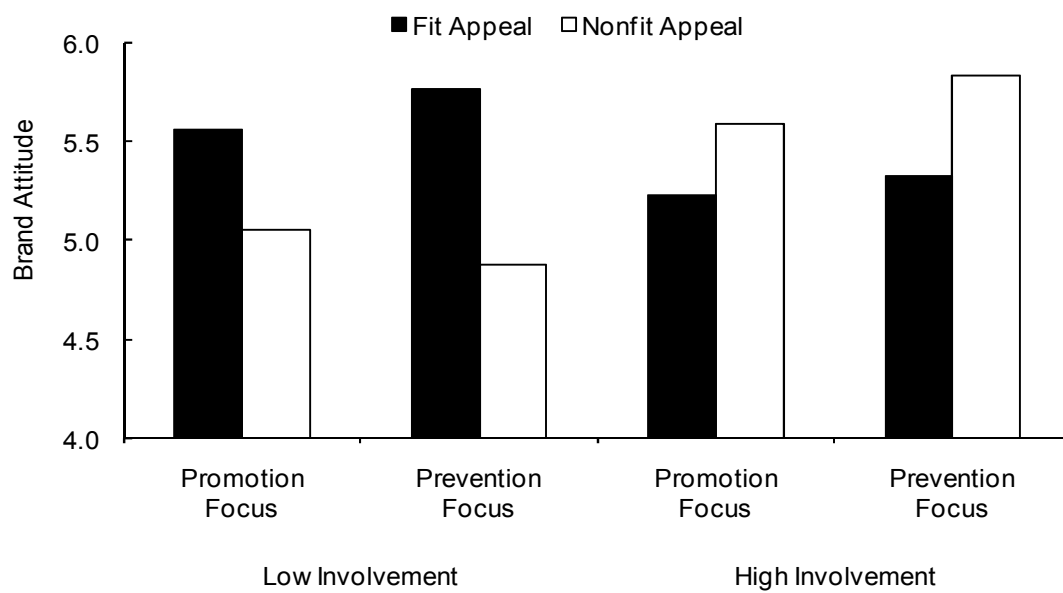
BRAND ATTITUDE AS A FUNCTION OF FIT AND REGULATORY FOCUS

(EXPERIMENT 2)

FIGURE 3

BRAND ATTITUDE AS A FUNCTION OF ARGUMENT STRENGTH, FIT, AND
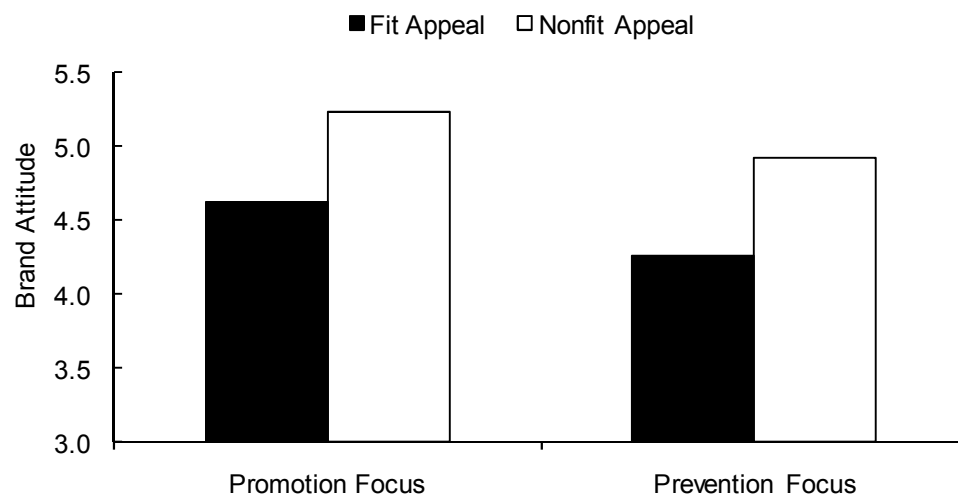
REGULATORY FOCUS (EXPERIMENT 3)

FIGURE 1

BRAND ATTITUDE AS A FUNCTION OF INVOLVEMENT, FIT,
AND REGULATORY FOCUS (EXPERIMENT 1)

FIGURE 2

BRAND ATTITUDE AS A FUNCTION OF FIT AND
REGULATORY FOCUS (EXPERIMENT 2)

FIGURE 3

BRAND ATTITUDE AS A FUNCTION OF ARGUMENT STRENGTH, FIT,
AND REGULATORY FOCUS (EXPERIMENT 3)