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Feeling Happier When Paying More: Dysfunctional Counterfactual Thinking in Consumer Affect

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Abstract

In this research the authors examine whether counterfactual thinking, the process of imagining alternatives to reality, can have a detrimental impact on consumers' feelings. Five studies examine the dysfunctional role of counterfactual thinking in the presence of Minimum Purchase Requirement conditional message framing ("X % off all purchases if you spend at least $Y"), and its affective consequences. Results show that the presence or absence of the minimum amount restriction (Studies 1A and 1B), success or failure to meet the restriction (Studies 2A and 2B), and perceived closeness (i.e., outcome proximity) to success or failure in meeting the restriction (Study 3), drastically influence consumer affect to the extent that participants receiving an inferior deal exhibited higher satisfaction than those receiving a superior deal. It is suggested that such promotion-induced counterfactual thinking polarizes consumer satisfaction, which may impede consumers from arriving at optimal conclusions.

Key words: counterfactual thinking, point-of-purchase promotion

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Imagine a shopper in a clothing store, buying a pair of jeans and a T-shirt that together cost $61. While browsing, she notices that the store is offering a 20 percent discount to customers who spend at least $100. She considers buying another pair of jeans with the ticket price of $40, which accompanies two potential outcomes. The consumer might buy the extra pair of jeans and pay $80.80 after the 20 percent discount (($61 + $40) × .8 = $80.80). Or she might not buy the extra jeans and simply pay $61 for the jeans and T-shirt. Economically speaking, purchasing the extra jeans would be justified only if the perceived value of the pants exceeds $19.80 (i.e., the difference between $80.80 and $61). Now further imagine that the consumer eventually buys the jeans, receives the discount, and pays the discounted price, $80.80.

Now imagine the same consumer in a slightly different context: the store does not offer a discount, but the extra pair of jeans she considers buying in the previous scenario is priced at $19.80. The consumer buys the identical items as in the previous scenario, and pays the same total price, $80.80. Consumers in both scenarios pay the same price for the same set of products, but who is likely to feel more satisfied? This paper demonstrates that that the consumer in the former scenario would feel happier than the one in the latter. This is based on the premise that the $100 minimum purchase requirement for the discount in the former condition is likely to evoke a contrasting image of a different shopping outcome (i.e., no discount), but the absence of the requirement in the latter is not likely to evoke an alternative outcome. This tendency to imagine what might have been or to think about an unrealized alternative version of a past or present outcome is what social psychologists call counterfactual thinking. Counterfactual

thinking typically takes the form of a conditional statement (e.g., "Had I not bought an extra pair of jeans, then I would have not received a discount"). During the process of counterfactual thinking, an individual first considers an alternative outcome (e.g., not receiving a discount), and then assesses how the alternative counterfactual outcome could have been achieved by mutating the factual antecedent (e.g., "if only I had not purchased the extra jeans") (Kahneman & Miller, 1986). Previous research in social psychology has demonstrated that the presence and the direction of counterfactual thinking can amplify satisfaction and regret (Roese, 1994; Medvec, Madey, & Gilovich 1995; Medvec & Savitsky, 1997), yet few have looked into the role of counterfactual thinking in the context of consumer-focused strategies (McGill, 2000; Landman & Petty, 2000). The present research seeks to show that counterfactual thinking can bias consumers' affective assessments of purchase outcomes under different promotional message framings. This research contends that the effects of counterfactual comparisons illustrated by the above example can be detrimental to consumers.

Counterfactual Thinking: A Functional Approach

Counterfactual thinking can be directional. When individuals imagine that a better alternative (upward counterfactual) might have occurred, they will judge the factual outcome to be worse; but if they imagine that the alternative could have been worse (downward counterfactual), they will judge the factual outcome to be better. Using upward counterfactual a consumer might think, "Had the store offered a greater discount, I would have paid less," but using downward counterfactual the consumer might think, "Had the store offered a smaller discount, I would have paid more."

Why do people engage in counterfactual thinking (hereafter, CFT)? CFT is frequently initiated by people's needs to predict and control future events (Roese & Olson, 1995). As

attribution theorists and functionalists alike may argue, CFT may play a significant role in helping an individual to understand what factors give rise to a certain outcome, to predict how and when the event will happen again, and to avoid (replicate) negative (positive) outcomes next time. Evidence suggests that generation of upward counterfactual thoughts can lead to behavioral improvement in a subsequent task (Markman, Gavanski, Sherman, & McMullen, 1993; Kray & Galinsky, 2003; Roese, 1994). A preparative function served by upward CFT may be analogous to the one served by upward comparison in the social comparison literature (Taylor & Lobel, 1989). As an individual makes a comparison with someone who is better off than himself/herself in hopes of self-improvement, a consumer may imagine a counterfactual situation that is better than the factual one for a similar reason. A frugal homemaker eager to save money on grocery shopping may benchmark his next door neighbor who manages to constantly find a better bargain (upward social comparison), or he may ponder what other stores he could have visited during his last grocery shopping trip (upward CFT).

Downward counterfactuals, on the other hand, may lead to immediate feelings of satisfaction at the expense of preparation for the future. For example, Roese (1994) showed that people strategically use downward CFTs to make themselves feel better and upward CFTs to improve future performance; when people expect to perform a similar task in the near future, they deliberately engage in upward CFT to prepare for the future even if they have just experienced a positive outcome. Upward and downward counterfactuals trade off immediate affect and preparation for the future, thus the net effect of CFT appears to be beneficial (Roese, 1997).

Occasionally, some negative effects can occur. CFT is useful because it typically centers on recurring events resulting in future improvement, but in a situation in which the event is

unlikely to happen again, upward CFT can make bad matters worse. For example, Davis, Lehman, Wortman, Silver, and Thompson (1995) showed that CFT can have detrimental consequences with non-repetitive traumatic life events such as the unexpected death of an infant. Such unhealthy CFT with non-recurring events may therefore persist longer than desired and the rumination of what might have been better can lead to long-term emotional distress such as depression (Roese, 2005). Individuals may be vulnerable to dysfunctional CFT particularly in the consumer domain where counterfactual anchors are often provided with persuasive intent through thoughtful coordination of marketing mix.

The CFT process is not error-free because a counterfactual antecedent is nothing but an imagined cause of an alternative outcome, which is not necessarily the real cause (e.g., for an example, see Miller, Visser, & Staub, 2005). This limited capability of identifying the real cause of the outcome – whether factual or counterfactual – places a restriction on the practical utility of CFT: one's imagination of undoing of the factual outcome may not lead to behavioral improvement in the future. It is not only difficult for an individual to come up with a counterfactual that truly undoes the factual outcome, but also, in some cases, there is no counterfactual alternative available that undoes the factual outcome. A high school student who failed to be admitted by a university she wished to attend might engage in CFT such as "if only I had studied harder" that may not undo the factual outcome, if, for example, the student is simply incapable of doing well on standardized tests.

Counterfactual Thinking in Marketing Research

Previous literature in marketing and consumer research has addressed the issue of CFT in terms of an expectancy disconfirmation model by including expectations about unchosen options as one variable that affects consumer satisfaction. The unchosen options are, essentially,

counterfactuals. Inman, Dyer, and Jia (1997) asked participants to make choices between successive lottery pairs, gave them outcome feedback on the chosen and unchosen alternative in each lottery pair, and asked them to evaluate their decisions. Participants evaluated their decisions more harshly when the outcome of the unchosen alternative was better than their decision. To put this in CFT terms, consumer evaluations were polarized in the presence of salient counterfactuals (see also Boles & Messick, 1995). Tsiros (1998) expanded Inman et al.'s (1997) findings to choice sets with more than two alternatives, and showed that regret is higher when performance of the forgone alternative is better than performance of the chosen alternative. Tsiros (1998) also found that when the outcome is positive people choose the best-performing forgone alternative as a reference point for comparison, but when the outcome is negative people choose the worst-performing forgone alternative as a reference point for comparison. Thus, just as people tend to compare themselves against similar others in social comparison (Festinger, 1954, Zanna, Goethals, & Hill, 1975), consumers base their comparison on the unchosen (counterfactual) alternative that is most similar to their chosen (factual) alternative.

Expectancy theorists' investigations of consumer expectations of unchosen products have dealt with some critical aspects of CFT in the consumer behavior domain. However, because CFT can take more diverse forms other than the one elicited by thinking about the unchosen product, CFT theory would provide a more comprehensive theoretical explanation not only for choice behavior, but also for other realms of consumer behavior. For example, CFT theory can address counterfactual thoughts triggered by internal factors (e.g., past experience), whereas expectancy theories narrowly focus on expectations about given alternatives.

Along with CFT, the role of prefactual thinking (i.e., imagining future or before-the-fact possible states) and anticipated regret in promotional messages has been examined (McConnell,

Niedermeier, Leibold, El-Alayli, Chin, & Kuiper, 2000). McConnell et al. (2000) had participants make a comparison between the satisfaction level of a protagonist who learned that the store would refund the price difference if a customer found the same product advertised for less money within 30 days of purchase, and the satisfaction level of another protagonist who did not learn about the price guarantee. McConnell et al. (2000) concluded that the awareness of the price guarantee prior to the purchase resulted in reduced anticipated regret, reduced anxiety, and greater satisfaction than not having a price guarantee available. Findings in McConnell et al.'s (2000) study imply that the marketer's provision of one possible negative future outcome (intended prefactual) along with an appropriate solution to it greatly helps enhance satisfaction.

Hetts, Boninger, Armor, Gleicher, and Nathanson (2000) explored the impact of anticipated counterfactual regret on insurance decisions. Participants played a computer game, the object of which was to move a treasure along a path laden with obstacles. Participants initially given a $10.00 treasure had the opportunity to spend part of their treasure to buy insurance. Anticipated counterfactual regret was manipulated: participants read either "if you don't get insurance and you lose all of your money, you will end up really wishing you had gotten the insurance", or "if you spend money to get insurance and then never use it, you will end up really wishing you had never gotten insurance." When provided with these prefactuals, participants in the former condition were on average wiling to pay higher premiums than participants in the latter condition. McConnell et al. (2000) and Hetts et al.'s (2000) findings together suggest that consumer satisfaction and behavior can be driven by persuasive message framings that impose certain prefectuals.

Although previous research in marketing and consumer behavior points to the importance of CFT in understanding consumer behavior, there are at least three research issues that have yet

to be addressed regarding CFT in consumer research. First, the influence of CFT has been limited to choice behavior in previous marketing research, leaving open the issue of the CFT effects in other domains of consumer research such as pricing and advertising. As shown in the introductory example, consumers routinely come across CFT-generating advertising (e.g., conditional price-cut promotions).

Second, no study has compared conditions with a CFT-based anchor (i.e., forgone alternatives) and conditions without a CFT-based anchor (i.e., no forgone alternatives). The present research suggests that consumers are likely to use different types of decision making frameworks in each condition. When a certain specific CFT becomes easily accessible, the consumer may use that CFT as a decision criterion for judging the success or failure of the consumption consequence. For example, a consumer aware of a clear CFT (e.g., "what if I bought Brand B instead of Brand A") is more likely to exhibit a more intense affective reaction to the shopping outcome than a consumer without such a CFT.

Third, and more important for the present set of experiments, functionalists have more often focused on the bright side of CFT by underlining its positive psychological functions, whereas relatively less effort has been directed toward understanding how and when CFT becomes counterproductive. The two most frequent positive functions served by counterfactual generation are affective functions and preparative functions. To illustrate the functional CFT at work, situate yourself in the introductory scenario. A counterfactual imagination of yourself receiving no discount (i.e., downward CFT) may make you feel lucky and grateful to have a discount and ultimately bring about a feeling of comfort (affective function). On the other hand, imagining yourself receiving a greater discount (i.e., upward CFT) may inspire you to find a better deal in the future (preparative function). However, there is a flip side to this account:

engaging in CFT, often triggered by advertising messages, may be occasionally followed by negative consequences. A downward CFT of paying a higher price may lead to retrospective self-blame for not searching for a better deal in the past, and a upward CFT of paying a lower price may lead to an excessive feeling of self-satisfaction for overly appreciating the status quo that may result in idleness in the future. In such instances, imagining how things might have been better or worse may become dysfunctional, ultimately misguiding consumers to a distorted view of the purchase outcome. This paper examines possible dysfunctional aspects of counterfactual thinking in the consumer domain.

Returning to the introductory example, Studies 1A and 1B demonstrate that the consumer in the first scenario would feel more satisfied even when she pays a *higher* price than the one in the latter. Why would such a satisfaction reversal emerge? Studies 2A and 2B provide a partial answer to this question: the consumer in the former scenario may engage in post-purchase CFT such as "what if I had not received the discount?", but the consumer in the latter scenario would not engage in such counterfactual thinking. Study 3 introduces perceived closeness of CFT as a moderating variable that strengthens the proposed satisfaction-reversal effect. That is, a 20 percent discount after a $101 purchase under the promotion that requires a $100 minimum purchase (close counterfactuals: $1) would feel more pleasing than a greater 30 percent discount after the same $101 purchase under the promotion that requires a $50 minimum purchase (remote counterfactuals: $51), although the objective amount of money paid in the latter situation is smaller ($101 × .07 = $70.70) than the former ($101 × .08 = $80.80).

Studies 1A and 1B

One common type of promotion in point of purchase (POP) advertising is the Minimum Purchase Requirement (hereafter, MinPR), which requires customers to purchase more than a

certain minimum amount of products, or to spend a minimum dollar amount, as a qualification for a discount (e.g., "buy two, get one free" or "spend $100, get 20% off."). One reason why MinPR may be effective is straightforward: consumers may believe that they see through and clearly understand each party's gain and loss from the bargain. That is, consumers are aware of the fact that they buy a greater amount, but in return, they obtain a superior value. Because of its economic advantage, this deal-seeking behavior (i.e., getting more for the same price or paying less for the same amount) is apparently a rational choice from the buyer's perspective.

As a rational decision maker, Joe Consumer should feel more satisfied and happier when he pays less than he expected to pay for a particular (set of) product(s). Consumers may try to exceed a given MinPR by purchasing an extra amount of the product when an ad message includes a MinPR. Unfortunately, the presence of a MinPR in a promotional message can sometimes lead a consumer to suboptimal decisions by drawing one's attention to the MinPR itself. This causes the consumer to use the MinPR as a reference point for evaluating her purchase outcome. It is speculated that those individuals exposed to MinPR promotions are likely to rely on a success-failure framework (i.e., extremely positive and negative reactions for success and failure, respectively), subsequently generating CFT; on the other hand, those who view a promotion without such a MinPR are likely to use a more sensible, continuous framework (i.e., the greater a discount, the more positive a reaction). When faced with a MinPR, the consumer's emotional appraisal of her shopping performance is likely to be based on whether she attains the MinPR (i.e., succeeds or fails), instead of how much she saves.

How does CFT relate to whether the consumer employs a success/failure or continuous framework in evaluating shopping performance? First, the presence of MinPR in a promotional message may cause consumers to generate counterfactual thoughts. Second, whether one

succeeds or fails to achieve the MinPR may dictate the direction of the consumers' CFT by determining which counterfactual comparison will be more salient. Consumers who attain the MinPR are likely to form a downward CFT of "it could have been worse if I did not receive a discount," and feel happy about their purchase regardless of the absolute dollar amount saved. In contrast, those who fail to attain the MinPR are likely to consider the frustrating upward CFT of "it would have been better if I received a discount," and feel unhappy about their purchase (see Medvec et al., 1995).

Accordingly, attaining the MinPR may excessively inflate, but missing the MinPR may deflate, one's affective appraisal of the deal. Therefore, the presence or absence of a MinPR may bring about a paradoxical situation where consumers who receive a smaller discount and thus pay more exhibit a higher level of satisfaction than those who receive a greater discount and pay less.[1] Studies 1A and 1B are designed to observe such effects: Do consumers feel worse (happier) when paying less (more)?

H1A: When buying the same set of items, consumers who pay less in the MinPR condition ($1,398.79) would feel worse, due to their failing to attain the MinPR, than those who pay more in the no MinPR condition ($1,598.62).

H1B: When buying the same set of items, consumers who pay more in the MinPR condition ($151.39 or $1,501.39) would feel better, due to their attaining the MinPR, than those who pay less in the no MinPR condition ($141.30 or $1,401.30).

In addition, Study 1B explores whether the MinPR size interacts with the presence/absence of MinPR by having two levels of MinPR (high MinPR: $1,501.39 / $1,401.30 vs. low MinPR: $151.39 / $141.30). It was expected that there would be no difference between

the high and low MinPR groups. This no-difference hypothesis was not included above because of the difficulty of hypothesizing null results.[2]

Method: Study 1A

Participants

One hundred two students enrolled in an introductory advertising course participated in the study in exchange for extra credit for the course.

Procedure

Upon entering the lab, participants were randomly assigned to either the MinPR or no-MinPR conditions, and were given a packet of materials consisting of a hypothetical furniture shopping scenario and a set of questions following each scenario. They were simply asked to read the shopping scenario carefully as if they were making the purchase described, and answer a set of questions measuring affective reactions (dependent variables).

Stimuli

Participants in both conditions first read an introduction that instructed them to imagine a person who goes shopping for some furniture with a shopping list. Next, in the MinPR version the protagonist encounters a promotional message with a MinPR ("30% off all purchases if you spend below $2,000, but 40% off if you spend $2,000 or more"); in the no-MinPR version the protagonist encounters the promotional message without a requirement ("20% off all purchases"). As the scenario unfolds, the protagonist adheres to the shopping list, picks up only those items that appear on the shopping list, and later learns at the checkout counter that the amount he/she has spent turns out to be $1,998.28. The protagonist in the MinPR scenario pays $1,398.79 after taking off 30%, whereas the protagonist in the no- MinPR scenario pays $1,598.62 after taking

off 20%. The scenarios were created such that the protagonist in the MinPR condition pays less ($1,398.79) than the one in the no-MinPR condition ($1,598.62).

Measures

Participants answered several questions about their feelings after reading about the shopping event. They indicated, on nine point semantic differential scales, the extent to which they were dissatisfied-satisfied, sad-happy, depressed-elated, frustrated-excited, and disappointed-relieved (McMullen & Markman, 2002). These five items displayed high internal consistency ($\alpha = .92$), and were therefore averaged to produce an overall affect score where a higher score indicates more positive affect.

Results: Study 1A

As predicted in H1A, although paying less, participants in the MinPR reported feeling worse ($M = 4.34$), than their counterparts ($M = 6.71$) in the no-MinPR condition (Figure 1); $t(100) = -7.55$, $p < .01$.

Figure 1 here

The above satisfaction reversal effect was presumed to be attributable to the fact that MinPR participants focused on attaining the MinPR and engaging in CFT (e.g., "If I had just spent a little more money, I could have received 40% off."), whereas no-MinPR participants focused on the absolute amount of money they paid with no CFT involved. This possibility is further investigated in Studies 1B and 2 that follow.

Method: Study 1B

Study 1B examined whether downward CFT produced by success in meeting the MinPR would have a similar effect in the opposite direction. It was expected that just attaining the MinPR would have a positive consequence for consumer affect strong enough to cause a satisfaction reversal: people who just attain the MinPR, though paying more, would feel happier than those who pay less in the no-MinPR condition. Study 1B additionally examined whether the absolute size of MinPR (and the corresponding amount paid) moderates the MinPR effect. Thus, Study 1B had a 2 ($200 vs. $2,000 MinPR) x 2 ($200 vs. $2,000 no-MinPR) between subjects design. In addition, open-ended thought listing responses were recorded in Study 1B in an effort to tap into the thinking processes and capture evidence for CFT. The number of instances respondents used "if" and "would / should / could" in the thought listing responses were counted and recorded to generate a CFT index.

Participants and Procedure

One hundred nineteen students participated in the study in exchange for extra credit for an introductory advertising course. The experimental procedure of Study 1B was identical to Study 1A except that thought listing data were collected.

Stimuli and Measures

Participants read the same scenario from Study 1A, except that they were exposed to a different advertising message and they completed a thought listing task by writing down thoughts that occurred to them while reading the scenario. The size of MinPR was also manipulated (i.e., $200 MinPR and $2,000 MinPR). In the $200 and $2,000 MinPR versions, the messages were framed as "25% off all purchases if you spend at least $200 ($2,000)." In both the $200 and $2,000 no-MinPR versions the messages were framed as "30% off all purchases." Contrary to Study 1A, in the present scenario the protagonist in the MinPR objectively pays

more – $151.39 ($1,501.39) after the 25% off – than the one in the no-MinPR condition – $141.30 ($1,401.30) after the 30% off. However, the presence of CFT (e.g., "If I had spent just a little less, then I would not have received a discount.") was hypothesized to heighten their favorable affective reactions. As in Study 1A, the reliability index of the affect measure was high ($\alpha = .91$).

Results: Study 1B

This experiment used a between-subjects design, with the MinPR size and the MinPR presence as independent variables. No significant main effects or interactions were found for the MinPR size variable; the MinPR size dimension has thus been dropped from subsequent analyses since the absolute size did not appear to moderate the effect of MinPR presence.

In Study 1B, it was hypothesized that attaining the MinPR would prompt participants to generate CFT, boosting their affect so that participants who objectively pay more ($151.39 / $1,501.39 after 25% off) in the MinPR condition would exhibit more positive affective reactions than those who pay less ($141.30 / $1,401.30 after 30% off) in the no-MinPR condition.

As shown in Figure 2, although paying more, participants in the MinPR condition indeed felt significantly happier ($M = 7.50$), than those in the no- MinPR condition ($M = 6.71$); $F(1, 115) = 5.68$, $p < .05$.

Figure 2 here

Thoughts listed by MinPR participants revealed some trace of CFT, while no such CFT was observed among no-MinPR participants. For example, participants who saw the promotion

with MinPR stated, "I would be happy since it went over $200 by only a little bit," or "Good deal. It's my lucky day. It costs barely over $200." Examples of CFT are shown in Table 1.

Table 1 here

The word "if" appeared more frequently among MinPR (M = .42) than no-MinPR participants (M = .19); $t(117) = 2.11$, $p < .05$, but there was no significant difference between the MinPR and no-MinPR condition in the frequency of the words "would / could / should"; $t(117) = -.55$, $p = n.s.$ Of course, this is not conclusive evidence that CFT is the main driving force of the observed MinPR effect; the words "if" could have been used in a context other than CFT.

Discussion

Studies 1A and 1B offer a shopping context in which consumer affect is adversely affected by the presence of MinPR: those who pay more feel better than those who pay less for the identical set of products. This suggests that consumers may evaluate advertising messages differently when the message includes MinPR than when it does not. It is proposed that the observed affective differences are due to CFT. With MinPR, CFT may become dysfunctional in at least two ways: 1) when consumers fail to meet MinPR, their affective reactions are more negative, although they may pay less, than those who receive a smaller discount (Study 1A), but 2) by attaining the MinPR, consumers feel better, although they may pay more, than those who obtain a better deal without such restrictions (Study 1B).

But are these findings directly attributable to CFT? In Study 1B, the frequency analysis of the word "if" provided partial evidence that CFT may be the driving force behind the observed MinPR effect, yet it is important to have more direct evidence for CFT as an underlying

mechanism behind MinPR effects. Study 2 is designed to address this point by assessing CFT in a more straightforward fashion.

Studies 2A and 2B

The purpose of Studies 2A and 2B is two-fold. First, Studies 2A and 2B replicate the findings from Studies 1A and 1B by simultaneously examining all three conditions in the previous studies (downward CFT with MinPR; upward CFT with MinPR; no CFT without MinPR). Second, and more importantly, the primary focus of these studies is placed on CFT itself. That is, the mediating role of CFT in the MinPR effect on consumer affect is directly assessed to establish the validity of the theoretical conceptualization.

Instead of the thought listing technique, two different CFT measures were utilized in Studies 2A and 2B in order to obtain evidence for the direction of participants' CFTs as a function of outcome valence (see Markman et al., 1993; Roese & Olson, 1995). In Study 2A, participants completed an open-ended sentence question, which was later coded by two independent coders. In Study 2B, CFT was measured with a similar sentence completion task, but participants self-coded their responses. The hypotheses for studies 2A and 2B are identical.

H2.1: The same pattern of the MinPR effect on consumer affect found in Studies 1A and 1B will emerge when the three conditions are simultaneously compared: although all consumers bought the exact same set of items, those who paid the most, but succeeded in meeting the MinPR, would feel the happiest, those without the MinPR would feel the second happiest, and those who paid the least, but failed to meet the MinPR, would feel least happy.

H2.2: Participants in the MinPR-failure condition would engage more in upward CFT than downward CFT, but participants in the MinPR-success condition would engage more in

downward CFT than upward CFT; participants in the no-MinPR condition would be equally likely to engage in upward and downward CFT.

H2.3: The MinPR effect on consumer affect in H2.1 will be mediated by CFT; MinPR-success participants' downward CFT will positively influence their feelings, while MinPR-failure participants' upward CFT will negatively influence their feelings.

Method: Study 2A

Participants. One hundred fifty participants in an introductory marketing class participated in this study.

Procedure. The data were collected in a computer lab. Upon entering the lab, each participant was seated in front of a computer screen that presented the shopping vignettes. Participants were randomly assigned to a condition (MinPR-success, MinPR-failure, or no MinPR). Participants were instructed to read the scenario carefully and answer the questions measuring the target dependent variables that followed the scenario. A summary of experimental conditions is shown in Table 2.

Table 2 here

Stimuli and measures. All three versions of the scenarios were identical to the ones used in Study 1A except that the following sentence was added at the end of the scenario: "On the way back home, you think to yourself, _____." On the next page was the same incomplete sentence that was to be completed by participants themselves. This sentence completion procedure was repeated three times so that participants could provide up to three different responses. These responses were coded according to the following two-step procedure.

First, only those 70 of the 153 total responses (45.8%) that include 'if', 'what', 'would', 'could', 'should', 'ought, 'had', and 'have' were selected. The remaining responses were coded as non-categorizable by assigning 0. Next, two raters independently coded the selected responses for evidence of CFT; conflicts were resolved through discussion. Each participant's individual responses were coded +1 for the upward CFTs, -1 for the downward CFTs, and 0 for neutral and non-categorizable responses. The inter-agreement rate between the two coders was high (94.3%). Since the number of thoughts per individual ranged from zero to three, within-individual responses were summed to create each participant's CFT index in which a positive value indicated the participant's tendency to engage in upward CFTs, and a negative value indicated the participant's tendency to engage in the downward CFTs.

Results: Study 2A

As in Study 1A and 1B, a similar pattern of affective responses emerged due to the MinPR restrictions (H2.1): while people bought the exact same set of items, those who paid most felt happiest, and those who paid least felt least happy. As shown in Figure 3, and revealed in a one way ANOVA, the mean affect scores differed by condition; $F(2, 74) = 32.44$, $p < .01$. Three sets of planned pairwise comparisons further showed that all three scores differed from each other (t's > 2.36. p's < .05).

Figure 3 here

Turning to respondents' CFT scores, a one-way ANOVA indicated that there were significant differences among the three conditions; $F(2, 74) = 15.48$, $p < .01$. Three sets of univariate t-tests supported H2.2: first, the average CFT score of MinPR-failure participants was

significantly greater than zero (M = .84); $t(24) = 4.26$, $p < .01$, revealing a tendency to engage in upward CFT. Second, the average CFT score of MinPR-success participants was significantly less than zero (M = -.80); $t(24) = -3.18$, $p < .01$, revealing a tendency to engage in downward CFT. Third, the average CFT score of no-MinPR participants was not significantly different from zero (M = -.04); $t(24) = .81$, p = *n.s.*, suggesting that their thoughts were balanced between upward and downward CFTs.

The most critical question in this study was whether the observed affective differences were mediated by respondents' CFTs (H2.3). In order to test the mediational hypothesis, two dummy variables were created based on the three-level ad message variable (MinPR-success; MinPR-failure; no-MinPR), and the following three regression equations were estimated (Baron & Kenny, 1986). First, CFT was regressed on the ad message type. Second, affect was regressed on the ad message type. Third, the affect was regressed on both the ad message type and on CFT. As predicted, the ad message type accounted for significant variation in CFT in the first equation in the expected direction; R = .55, p <.01; $\beta_{success} = -.29$, t (72) = -2.58, $p < .05$; $\beta_{failure} = .34$, t (72) = 2.98, $p < .01$. Also, the ad message type accounted for significant variation in the affect variable in the second equation in the expected direction; R = .69, $p < .01$; $\beta_{success} = .18$, t (72) = 1.86, $p < .05$; $\beta_{failure} = -.59$, t (72) = -5.86, $p < .01$. Finally, the CFT significantly influenced affect in the third equation in which both the CFT and ad message type variables were simultaneously entered; $\beta = -.20$, t (71) = -2.04, $p < .05$. In addition, when both CFT and ad message type were added in the equation, the effect of MinPR success on affect became non significant ($\beta_{success} = .12$), suggesting that downward CFT fully mediated the effect; however, the effect of MinPR failure on affect remained significant ($\beta_{failure} = -.50$), suggesting that upward CFT partially mediated the effect. The values of all the β's are shown in Figure 4.

Figure 4 here

Method: Study 2B

Participants and procedure. One hundred fifty participants in an introductory advertising course were randomly assigned to a MinPR-success condition, MinPR-failure condition, or no MinPR condition. In this study, the data were collected by paper and pencil.

Stimuli and measures. All three versions of the scenarios were identical to the ones used in Study 2A except that a specific CFT prompt was provided: the incomplete counterfactual sentence at the end of the scenario began with a phrase that triggers upward CFT ("On the way back home, you think to yourself, 'What if _____?'"). Unlike Study 2A, participants self-rated their own responses on a seven point scale, the two ends of which were "it could have been much worse" for downward CFT and "it could have been much better" for upward CFT. Positive values on this scale reflect participants' engagement in upward CFT, whereas negative value represents downward CFT. This procedure was repeated three times, and responses were averaged to obtain a composite CFT index.

Results: Study 2B

The results of Study 2A were replicated. A one way ANOVA showed that participants feel happier as they paid more, and sadder when they paid less (H2.1); $F(2, 147) = 10.73$, $p < .01$. In the same vein, three sets of planned pairwise comparisons further showed that all three scores differed from each other (t's > 2.30. p's < .05).

As in Study 2A, a one-way ANOVA indicated that there were significant differences in respondents' CFT scores among the three conditions; $F(2, 148) = 12.56$, $p < .01$. Three sets of

univariate t-tests supported H2.2: MinPR-failure participants engaged in upward CFT (M = .44); $t(49) = 2.25$, $p < .05$; MinPR-success participants engaged in downward CFT (M = -.70); $t(50)$ = -4.61, $p < .01$; no-MinPR participants' thoughts were balanced (M = -.14); $t(48) = -1.12$, $p = n.s.$

The mediational hypothesis was also supported. First, the ad message type accounted for significant variation in CFT; R = .38, $p < .01$; $\beta_{success} = -.22$, t (146) = -2.43, $p < .05$; $\beta_{failure} = .23$, t (146) = 2.54, $p < .05$. Second, the ad message type accounted for significant variation in the affect variable; R = .57, $p < .01$; $\beta_{success} = .18$, t (146) = 2.25, $p < .05$; $\beta_{failure} = -.45$, t (146) = -5.76, $p < .01$. Finally, the CFT significantly affected the affect in the regression equation in which both the CFT and ad message type variables were simultaneously entered; R = .64, $\beta = -.33$, t (145) = -4.73, $p < .01$. Consistent with the findings from Study 2A, when both CFT and ad message type were added in the equation, the effect of MinPR success on affect became non significant ($\beta_{success}$ = .11), yet the effect of MinPR failure on affect remained significant ($\beta_{failure} = -.32$), suggesting that downward CFT fully, but upward CFT partially, mediated the MinPR effect. The values of all the β's are reported in Figure 4 together with those from Study 2A.

Discussion

The results of Studies 2A and 2B provide confirmatory evidence for the robustness of the MinPR effects, pinpointing CFT as a mediating agent for the observed effect. Whether a consumer succeeds or fails to meet the MinPR in the ad message shapes the direction of the CFT, which in turn polarizes consumer affect. Consumers who fail to meet the MinPR tend to focus more on thoughts that things could have been better (e.g., "I could have paid less"), even though the price they paid was relatively small. In contrast, those who attain the MinPR tend to focus more on thoughts that things could have been worse (e.g., "I could have paid more"), although

the price they paid was relatively high. This finding is important as the authors know of no other studies that explicitly demonstrate this mediational pattern.

Results from Studies 2A and 2B also suggest that downward CFT exerts a stronger influence via full mediation than upward CFT (partial mediation), perhaps due to loss aversion. A body of research supports the notion that losses result in a greater psychological impact than do gains (e.g., Kahneman, Knetsch, & Thaler, 1990), and the results from the present research are in line with this prediction. In both sets of mediational analyses the direct relationship between failing to achieve the MinPR and affective responses is much stronger than the direct relationship between successfully achieving the MinPR and affective responses.

Unlike the introductory scenario, real world consumers in a furniture store may not consider buying an extra item because the high price of furniture is likely to prevent impulse buying. Or, furniture shopping may be unfamiliar to college students who have no clear idea how they would respond in such a situation. Arguably, however, the implausibility of the furniture scenarios used in Studies 1 and 2 could be perceived as a strength, rather than a weakness of the present research. If participants indeed report feelings that they would experience even under circumstances that seem unusual, or circumstances where they would not be expected to make an impulse purchase, this would constitute strong evidence for the effect. Nevertheless, in an attempt to ensure the ecological validity of these findings, the authors scale down the cost of the items and replicated these findings in a more realistic setting in Study 3.

It may be safe to say now that MinPR influences consumer affect via CFT, but under what circumstances can the MinPR effect be manifested? What factors cause the MinPR to exert a stronger or weaker influence on consumer affect? In Study 3, perceived proximity to the MinPR is introduced as one determinant variable that moderates the MinPR effect on affect. This

prediction is based on previous findings that counterfactual generation can be influenced by the perceived closeness of an outcome to a more or less desired alternative outcome. For example, Kahneman and Tversky (1982) showed that having missed one's plane by five minutes is more disappointing than having missed it by half an hour.

Study 3

The general theme of the studies presented in this paper centers on the MinPR effect on consumer affect, yet each study emphasizes different aspects of the MinPR. The primary focus of Studies 1A and 1B are on the comparison between the presence and absence of the MinPR, while Studies 2A and 2B, directly examining the mediating role of CFT, focus on the comparison between the MinPR-success versus MinPR-failure conditions. In Study 3, the emphasis is placed on how close the purchase outcome is to the MinPR, along with an effort to enhance the ecological validity of the findings in Studies 1 and 2. More specifically, the purpose of Study 3 is to answer the following two questions: 1) can the affect-reversal MinPR effect be extended to more natural settings (i.e., an online shopping environment), and 2) is the MinPR effect moderated by perceived closeness (i.e., outcome proximity) to counterfactual alternatives?

It is presumed that the MinPR effects in Studies 1 and 2 were observable, not only because of the presence of MinPR (Studies 1A and 1B) and the direction of CFT (Studies 2A and 2B), but also because of the perceived proximity to forgone outcomes. That is, the closely perceived better or worse outcomes in Studies 1 and 2 may have increased the salience of downward or upward counterfactuals, which in turn led to participants' feelings of pleasure or disappointment. If so, the contrast between factual and counterfactual alternatives should be perceived less vividly as one's factual outcomes are distanced from a given cutoff point (see Kahneman & Tversky, 1982; Medvec & Savitsky, 1997; Roese & Olsen, 1996).

Study 3 attempts to demonstrate that the strength of counterfactual effects on consumer affect would deteriorate as one's purchase outcome moves away from a given MinPR. Consistent with findings from Studies 1 and 2, it is hypothesized that MinPR-failure participants would feel worse than MinPR-success participants, but this effect would be moderated by distance, such that near participants should have more intense feelings than far participants. As was the case in the previous study, the independent variables in the present study are deliberately manipulated to observe whether participants feel happier when paying more and feel worse when paying less.

H3.1: As in Studies 1 and 2, participants who pay more in the MinPR-success condition would feel happier than their counterparts who pay less in the MinPR-failure condition.

H3.2: Within the MinPR failure condition, participants who pay less in the close MinPR-failure condition would feel worse than their counterparts who pay more in the remote MinPR-failure condition.

H3.3: Within the MinPR-success condition, participants who pay more in the close MinPR-success condition would feel happier than their counterparts who pay less in the remote MinPR-success condition.

Method

The hypotheses in Studies 1 and 2 were tested by using shopping scenarios. Study 3, however, reflects a real-world shopping environment by having participants engage in a more life-like shopping experience. Study 3 also extends previous findings to online-shopping contexts, a different domain of consumer behavior.

Overview

A 2 (MinPR outcome: success vs. failure) x 2 (MinPR outcome proximity: close to vs. far from the MinPR) between subjects experiment was conducted. First, the outcome was described

as either success for downward CFT (meeting the MinPR and receiving a discount) or a failure for upward CFT (not meeting the MinPR, and thus, a smaller discount). Second, the MinPRs for the discounts were altered so that participants were led to believe that they either nearly or entirely missed or made the MinPR, either for the higher or lower level of discount.

Participants

A total of two hundred five undergraduate students voluntarily participated in the study in exchange for partial credit toward designated courses in the advertising curriculum.

Procedure and Stimuli

Participants were seated in front of a computer monitor that randomly presented one of the four conditions. Each condition contained a mock website created to resemble an actual Internet retailer (Figure 5). Participants were told through the computer screen to imagine themselves shopping for Christmas presents for their family members with a budget of $200-$300.

Figure 5 here

Participants were asked to behave naturally as if they were shopping at the web site. After logging on to www.christmasgiftstores.com to shop for some Christmas presents for their family, participants first noticed that there was a promotion called "Guess and Save Deal." Participants clicked on an icon and moved on to the next site where they read the rules about the game-like promotion. Participants were told that they would see four separate categories of Christmas gifts: books, electronics, apparel, and shoes. They were further told that they would see three items in each category without price information, have to guess the prices of those items in each category,

and select only one item they intend to purchase. Finally they were told that they would receive a certain amount of discount only if they made it to the proposed MinPR.

As participants then went through the four aforementioned categories of products, they first made a selection among three choices in each category. The price of the selected item was given immediately after they made a selection. After making all four selections, participants were informed of the total amount of money they had spent, automatically computed by the website. At the end, participants learned whether they had succeeded or failed in reaching the MinPR. As explained below, the MinPR varied among conditions.

When they finished shopping, participants were randomly exposed to one of the following conditions regardless of their product selections (Figure 6): the close MinPR-success condition, the remote MinPR-success condition, the close MinPR-failure condition, or the remote MinPR-failure condition. The total amount spent in the close and remote success conditions was unvaryingly set as $250.09, while the total amount spent in the close and remote failure conditions was set as $249.02. The distance between the MinPR and the purchase outcome was manipulated by altering the MinPR: the MinPR was set as 1) $250 in the close MinPR success-condition; participants attained the MinPR by less than 10 cents, thus paying $187.57 after a 25% discount; 2) $230 in the remote MinPR-success condition; participants' attained the MinPR by more than 20 dollars, thus paying $175.06 after a 30% discount; 3) $250 in the close MinPR-failure condition; participants failed to meet the MinPR by less than 10 cents, thus paying $162.44; and 4) $270 in the remote MinPR-failure condition; participants failed to meet the MinPR by more than 20 dollars, thus paying $174.94.

Figure 6 here

As shown in Figure 6, outcomes were manipulated so that greater amounts were paid overall in the MinPR-success conditions ($187.57 & $175.06), than in the MinPR-failure conditions ($162.44 & $174.94). Within the success conditions a greater amount was paid in the close MinPR-success condition ($187.57) than the remote MinPR-success condition ($175.06), whereas within the failure conditions a smaller amount was paid in the close MinPR-failure condition ($162.44) than in the remote MinPR-failure condition ($174.94). This allows observation of affect-reversal (i.e., feeling happier when paying more and/or feeling worse when paying less) between CFT directions (upward vs. downward; H.3.1) and within CFT directions (close vs. remote downward; H.3.2., & close vs. remote upward; H.3.3).

Dependent Measures

As in previous studies, satisfaction was measured by means of five nine-point items (dissatisfied/satisfied, sad/happy, depressed/elated, frustrated/excited, and disappointed/relieved), which were internally consistent ($\alpha = .95$).

Results

To test H3.1, H3.2, and H3.3, the affect measure was submitted to a 2 (MinPR outcome: success vs. failure) x 2 (MinPR outcome proximity: close vs. far) factorial ANOVA. The analysis reveled a significant main effect of MinPR outcome; $F(1, 202) = 88.61$, $p < .01$. As predicted in H3.1, participants who paid more in the MinPR outcome-success condition felt happier ($M_{success} = 6.92$) than their counterparts who paid less in the MinPR outcome-failure condition ($M_{failure} = 4.52$). There was no main effect of MinPR outcome proximity; $F(1, 202) = 1.12$, $p = n.s.$

An interaction between MinPR outcome and MinPR outcome proximity was significant; $F(2, 202) = 7.04$, $p < .01$. This two-way interaction effect was further analyzed using simple effects analyses. MinPR outcome proximity (close vs. far) significantly influenced affect scores in the expected direction for participants in the MinPR outcome-failure condition; $F(1, 202) = 5.08$, $p < .05$, revealing that MinPR outcome-failure participants nearly missing the requirement displayed lower satisfaction ($M_{close} = 4.00$), although paying less ($175.96 vs. $187.57) than those who entirely missed the MinPR ($M_{far} = 4.96$; H3.2). MinPR outcome proximity (close vs. far) marginally influenced affect scores in the expected direction for participants in the MinPR outcome-success condition; $F(1, 202) = 2.79$, $p < .10$, suggesting that MinPR outcome-success participants nearly attaining the MinPR displayed somewhat higher satisfaction ($M_{close} = 7.11$), although paying more ($174.44 vs. $162.44), than those who had entirely made the MinPR ($M_{far} = 7.70$; H3.3). Figure 7 presents main findings from Study 3.

Figure 7 here

The results indicate that the overall effect of counterfactual thoughts becomes stronger as the purchase outcome approaches the MinPR, which is sufficiently strong to override the increased discrepancy in the amount paid. Participants who paid most ($187.57) exhibited the most satisfaction, whereas those who paid least ($162.44) displayed the least satisfaction. In addition, a significant correlation between price paid and satisfaction ($r = .51$) further confirms a complete satisfaction reversal – the more people paid, the happier they were.

Discussion

The results of Study 3 demonstrate the moderating role of perceived closeness in the relationship between the MinPR and consumer affect. Consistent with the findings of Studies 1 and 2, attaining the MinPR engenders positive affective response to a suboptimal shopping outcome. Furthermore, this phenomenon becomes more apparent when the proximity to the success-failure borderline is perceived to be close rather than far.

With the absence of a MinPR, consumers' affective judgment may be governed by the proportion of cost and gain. Although consumer satisfaction may decrease linearly with the amount paid, the findings from Study 3 suggest an intriguing exception to this rule. Placing a MinPR in an ad message may evoke different counterfactuals, the vividness and accessibility of which may be established by the proximity of one's purchase outcome to the MinPR. Falling just short of a MinPR can result in a frustrated emotion of "I might have paid less" and the disturbing contrast between the price actually paid and an imagined lower price almost paid. On the other hand, landing just above a MinPR can elicit the downward CFT of "I might have paid more", and the contrast would come, with an emotional upswing, between the price actually paid and the higher price almost paid.

General Discussion

With a particular emphasis on CFT and its affective consequences, the studies in this paper provided realistic consumption contexts in which CFT can become counterproductive. Upon investigating the effect of MinPR conditional framing ("X % off all purchases if you spend at least $Y"), distinctions were drawn between presence and absence of MinPR (Studies 1A & 1B), success and failure to meet MinPR (Studies 2A & 2B), and close success/failure and far success/failure to meet MinPR (Study 3). Results showed that these three variables drastically

influence consumer affect via CFT to the extent that participants receiving an inferior deal exhibited higher satisfaction than those receiving a superior deal.

Studies 1A and 1B showed that the presence and absence of MinPR in a POP advertisement can have a striking effect on the affective evaluation of purchase outcomes. Participants who paid less under the MinPR felt worse than those who paid more (Study 1A), and participants who paid more under the MinPR felt happier than those who paid less (Study 1B). Findings from Study 1B provided suggestive evidence that the presence of CFT drove the observed MinPR effect. This CFT driven affect-reversal can be dysfunctional, as the inclusion of MinPR in an advertising message may lead consumers to behave against their own self-interest. For example, the positively biased affect rooted in downward CFT may reinforce sub-optimal behavior by leading consumers to continue seeking similar deals but to avoid comparison shopping, whereas negative affect preceded by upward CFT may lead to an unreasonable feeling of frustration.

Studies 2A and 2B replicated the findings from Studies 1A and 1B, offering more direct evidence that CFT is the driving force behind the affect-reversal MinPR effect. The results of Studies 2A and 2B precisely pinpoint the direction of CFT as a mediator of the MinPR effects: thinking about what might have been worse (downward CFT) made participants more satisfied with the purchase outcome, but thinking about what might have been better (upward CFT) made participants less satisfied with the purchase outcome.

Study 3 expands the findings from Studies 1 and 2 by introducing outcome proximity as a moderator of the relationship between MinPR and consumer affect. Consumer affect was intensified when the counterfactual alternative was perceived to be near rather than far. The disappointing feeling of upward CFT was more painful when participants nearly missed the

MinPR than distantly missed it, and the rewarding feeling of downward CFT was more pleasing when participants nearly made the MinPR than easily made it. Also, by exposing participants to a more engaging shopping environment, Study 3 increased the ecological validity of the affect-reversal MinPR effect. The findings from Study 3 bolster the point made above that CFT may be dysfunctional; MinPR advertising may mislead consumers in such a manner that people facing a MinPR tend to overvalue or undervalue the discount they receive. This CFT-exaggerated feeling can be counterproductive if, for example, a near MinPR achiever not aware of a better bargain available in another local store feels overjoyed with her purchase and returns to the same store in the future without checking the price in another shop.

Contributions

The studies reported in this article shed lights on several streams of literature. First, the present research adds to the extant literature on regret and counterfactual thinking (e.g., Medvec et al., 1995). The current research identified the MinPR as a promotional device that triggers CFT, which in turn shapes consumer satisfaction. More important, in an attempt to triangulate the findings, three different methods were used to measure CFT (Studies 1B, 2A, & 2B). While previous research speculated the CFT-affect relationship without direct CFT measures, the current research put this theoretical relationship to an empirical test, and showed the mediating role of CFT in shaping consumer affect.

In addition, the present research complements prior research by showing that people use reference points as the basis of judging the shopping outcome (Thaler, 1985; Tversky & Kahneman, 1991). The findings suggest that such reference points can be deliberately provided by marketers via marketing communication. This is in line with earlier findings in the decision making literature that an externally given reference point sometimes becomes more salient and

more accessible than an internal one (Hsee & Leclerc, 1998; Wansink et al., 1998). Or, to put this in a different theoretical framework, the MinPR in the present research can be considered a focal goal (Lee & Ariley, 2006), which needs to be attained to experience a feeling of happiness. Building on this line of research, the current findings effectively show that CFT is an intermediate stage toward ultimate consumer (dis)satisfaction.

From an economic standpoint, the findings are intriguing because consumers tend to strive to find the best price available in the market, and the less they pay the better they should feel (e.g., Sharma & Krishnan, 2001). Such a cost-benefit explanation of consumer affect may well be suitable when an ad message does not accompany a conditional phrase. In a situation where a consumer encounters a MinPR restriction, however, a more appropriate explanation may be derived from the psychology of counterfactual thinking, an apparatus that governs consumer satisfaction in an utterly different fashion. A better or worse counterfactual alternative, shaped by MinPR, appears to come more vividly to one's mind when the consumer is situated in an "if-then" setting. No matter how much one pays, consumer affect is contingent on whether the negative or positive aspect of *what might have been* is evoked by the MinPR. By polarizing consumer satisfaction, the MinPR often impedes consumers from arriving at an optimal conclusion.

Limitations and Future Research

In line with Lee and Ariely's (2006) framework, real world consumers, like the consumer in the introductory example, may spend just slightly more than the proposed MinPR to strategically minimize regret or maximize satisfaction. In fact, evidence supports this prediction. Yoon and Vargas (2009) found that people tend to anchor on, and thus converge toward, the given MinPR in their purchase quantity. Conversely, unlike the introductory scenario, real world

consumers may not easily change their shopping lists simply because of a POP promotion. They might adhere to their initial shopping lists because their purchase decisions are more than a mere function of an economic price-gain ratio (e.g., Kahneman &Tversky, 1982). A buyer may have a high need for psychological justification for an extra purchase, even though the purchase increases the total value of the items (i.e., lower per-item-price) in the shopping cart. These shortcomings limit ecological validity, and may be addressed in future research by designing studies in which participants autonomously decide how much to spend in a more realistic setting. However, limitations in ecological validity do not invalidate the theoretical point made in this research (Banaji & Crowder, 1989), viz., that the relationship between the amount paid for a particular set of products and consumer satisfaction — usually, and sensibly, negatively correlated — can be completely reversed via CFT.

An additional caveat is that unparallel structure between the success and failure conditions in Studies 2 and 3 might have made the discount loss more salient than the gain, thereby explaining the weaker contrast in success as compared to that in failure.

Future research may yet confirm whether the effects observed in this paper are moderated by other factors such as personal involvement. It may be that consumers are more likely to generate CFT following important or highly involving events or decisions. It is possible that low-involvement products (e.g., repeated purchases made with habitual decision making processes) might not elicit the effects reported in this paper[3] because CFT is, by definition, elaborative cognition – going beyond cognition about what did happen, CFT is cognition about what could have happened. And elaborative cognition typically is not elicited by unimportant, or uninvolving, stimuli (Petty & Wegener, 1998), although it may be present for mundane events among those high in the need for cognition (Cacioppo, Petty, Feinstein, & Jarvis, 1996). It is also

possible that student participants in the studies reported in this article may not have followed the instructions as carefully as they should have. A replication of the current studies in a real store with real consumers should address these issues.

In addition, future research should examine whether the affect triggered by the CFT-provoking experience further shapes consumers' attitudes toward the target brand or their repurchase intentions at the store. This question calls for empirical testing because positive feelings after downward CFT may be passed on to consumers' attitudes and future intentions (see Bagozzi, 1996 for halo effect; see Brock and Shavitt 1983 for affect transfer), or it could backfire and create negative attitudes toward the store (e.g., feelings of being tricked) of which managers should be wary. CFT-enhanced feelings may help consumers form a positive overall evaluation of the retailer ("I always find a deal at this store"), yet it may also cause consumers to experience post-purchase dissonance ("I always end up buying too many things that I don't need at this store") which might in turn adversely affect their attitudes and repurchase intention. Further studies may identify factors that contribute to affect-attitude consistency.

Implications

This promotion-induced CFT may have an undesirable effect also by distorting consumer perception of the deal. One negative psychological consequence of such CFT is focalism (Wilson, Wheatley, & Meyers, 2000), the tendency to focus too much on the matter in question and fail to consider the other issues that are important. When too much attention is on the MinPR and the following CFT, consumers may not be able to factor in other important criteria in their purchase quantity decision making. Consumers under MinPR promotion may end up purchasing an excessive amount of products only to receive a better bargain, and may realize and regret later that they purchased more than they could consume.

The implications for consumer advocacy groups are clear: even though the last bargain at a certain store was exceptionally satisfying, price-savvy consumers should continue comparison shopping, being mindful that the pleasing experience of a MinPR discount can be misleading and may prevent the consumer from discovering a better bargain. In addition, a detailed shopping list and budgeting would be one means to stay away from the potential negative influence of CFT.

The current findings have several important managerial implications, as many retailers these days encourage customer spending by offering MinPR-based price deals. To illustrate, IKEA's direct mail targets and attracts recent movers with MinPR coupons ("$25 off a purchase of $250 or more!"). Similarly, Bed Bath & Beyond offers the $15 MinPR for a $5 discount ("$5 off a purchase of $15 or more"). And Polo Ralph Lauren Factory Store often bundles its non-MinPR percentage-based discounts ("Kick off the summer in style with 25% – 40% off") with a MinPR incentive ("Additional $20 off every $125 you spend"). The present research offers unbiased empirical evidence that demonstrates the efficacy of these CFT-inducing promotions.

In a different setting, many grocery chains apply a discount and then mark on the receipt the amount of money the customer saved ("Shopping with us today, you saved: $XX.XX"). The present research suggests that retailers may benefit from including a CFT-salient phrase such as, "Had you shopped elsewhere (or the competing store's name), you might have spent $XX.XX more." This type of message framing would allow consumers to actively envision what they could have lost rather than to be passively reminded of what they gained, thereby effectively uplifting their post-purchase satisfaction.

Elimination of dysfunctional CFT may bring long-term benefits for marketers. In the absence of such CFT, consumers need not be concerned about better, forgone alternatives that might or might not have existed in another store. One way to accomplish this is to minimize

conditional promotions such as MinPR and spread out the discount rate over a long time frame, yet the retailer should aim to convince consumers that the store provides the best value over the long term. Consistent with this idea in practice is the Everyday Low Price (EDLP) that has been adopted by many US superstores for a number of years. By removing conditional promotions, consumers may suffer less from counterfactual regrets and may become more store-loyal.

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Tables

Table 1. CFT Examples among MinPR Participants

I would be happy that I didn't need to buy unnecessary stuff.
I would be really happy because I just managed to get the discount and I didn't have to pay for anything I didn't want
Maybe I wasn't going to spend $2000
At first glance it seems like we would have to try extremely hard to get up to $200, but that wasn't the case
I was thinking that the total amount of money for shopping list would not exceed $200
I would buy more if I didn't hit $2000 with the list
I would be happy since it went over $200 by only a little bit
If I had bought what I had planned and it didn't reach $200 I would have bought something else.
I would be happy if I got the discount.
Good thing it cost barely over $200
Some people would end up paying more than they would have if they had ignored the discount
I hope I am right above $2000

Table 2. Experimental Conditions (Study 2)

Conditions	Amount Spent	Amount Discounted	Amount Paid
MinPR-Success (“Made-it”)	$2,001.86.	25%	$1,501.39.
No-MinPR	$2,001.86.	30%	$1,401.30.
MinPR-Failure (“Missed-it”)	$1,998.28.	35%	$1,298.88.

Figures

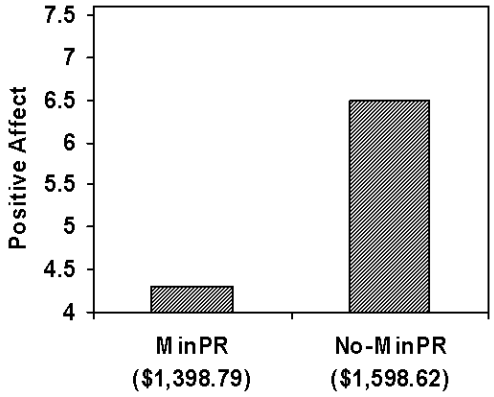


Figure 1. MinPR Effect: Affect Deflator

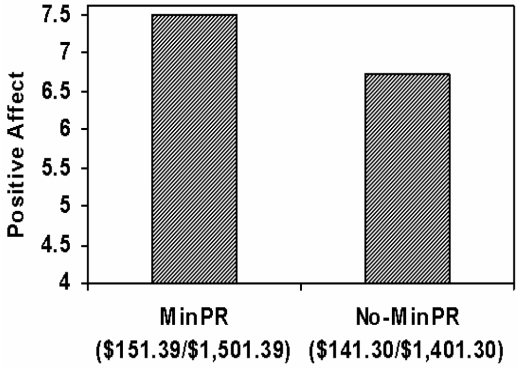


Figure 2. MinPR Effect: Affect Inflator

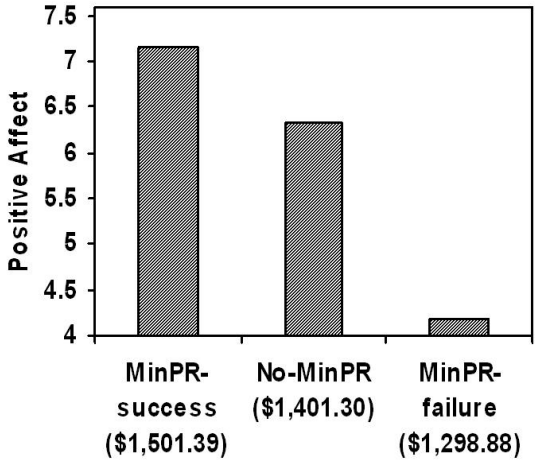
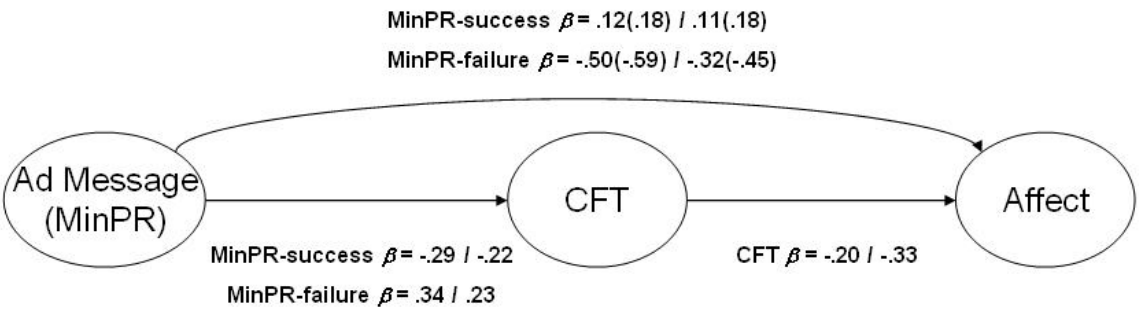


Figure 3. MinPR Effect



Note: Values from Studies 2A and 2B are divided by slashes: Study 2A / Study 2B

Figure 4. Mediation

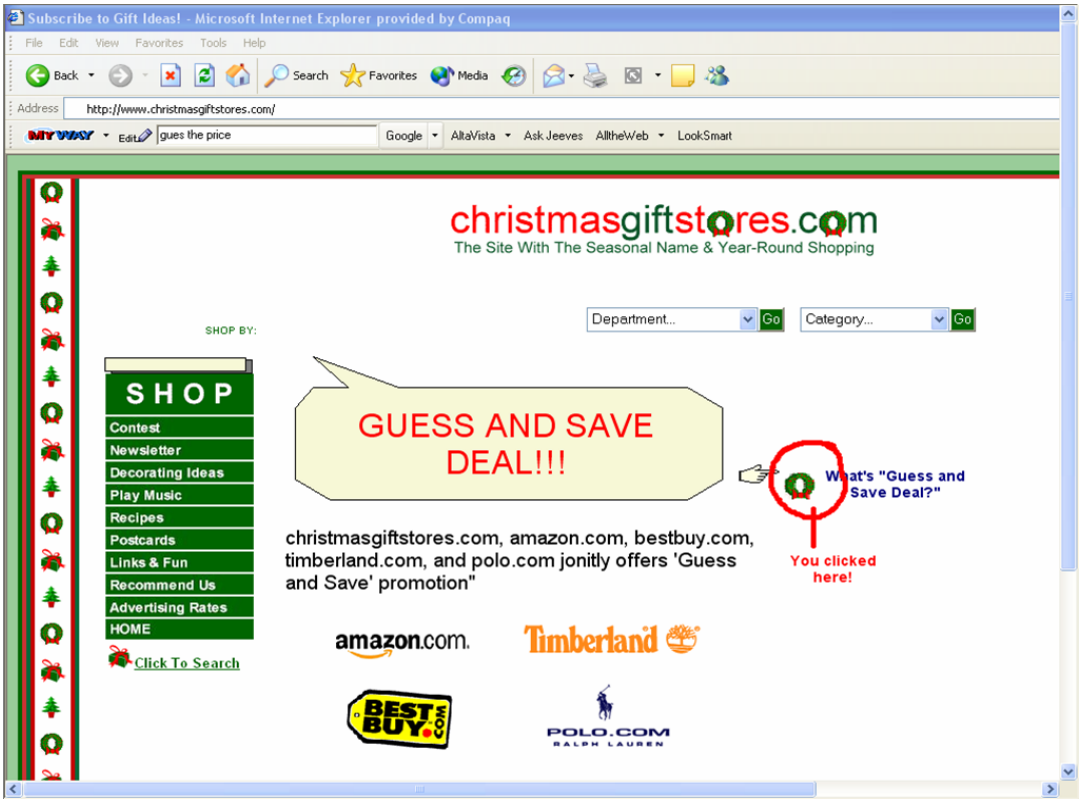


Figure 5. Mock Website

Figure 6. Experimental Conditions

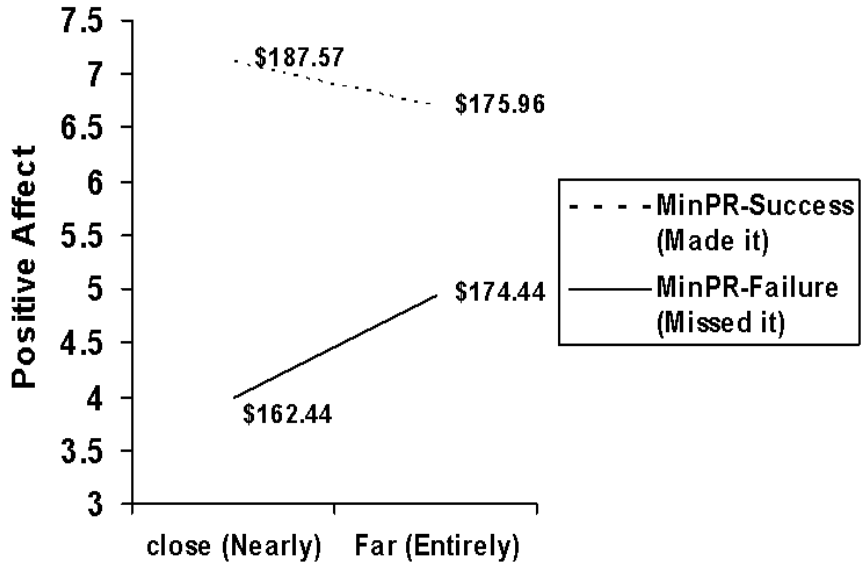


Figure 7. MinPR Outcome x Outcome Proximity Interaction

Footnotes

[1] Of course, not having such a MinPR (e.g., "30% off all purchases") rather than having one (e.g., "spend $100, get 30% off") is generally a better deal for consumers because there is no restriction in the former case.

[2] There are two generally accepted reasons why the null hypothesis cannot logically be proven. First, there is the possibility that the statistics used did not detect a true difference (i.e., Type II error). Second, there is the possibility that the treatments were too weak to demonstrate a difference, or that there was insufficient statistical power, or that extraneous influences otherwise disguised the effect.

[3] The authors thank the anonymous reviewer for this point.