Regret from Post-purchase Discovery of Lower Market Prices:
Do Price Refunds Help?

Sujay Dutta
Abhijit Biswas
Dhruv Grewal

Sujay Dutta (sujaydutta@wayne.edu) is an Assistant Professor and Abhijit Biswas (A.Biswas@wayne.edu) is the Kmart Endowed Chair and Professor of Marketing at the Department of Marketing and Supply Chain Management of Wayne State University at 5201 Cass Avenue, Detroit, MI 48202. Dhruv Grewal (dgrewal@babson.edu) is the Toyota Chair in E-Commerce and Electronic Business at the Department of Marketing of Babson College, Babson Park, MA 02457. The authors appreciate the helpful comments of Michael Tsiros, Nancy M. Puccinelli, Abhijit Guha, Robert Leone and the three anonymous reviewers.
Regret from Post-purchase Discovery of Lower Market Prices:  
Do Price Refunds Help? 

Abstract

Consumer regret can result in unfavorable outcomes for marketers. To prevent regret, many retailers promise to refund money to consumers who discover lower prices after purchase. The authors show that a refund’s effect on felt regret depends on how consumers view these promises. If consumers mainly view them as protective tools, i.e., adopt a *protection focus*, post-refund regret is minimal. If consumers primarily view such promises as sources of information about the retailer’s price status, i.e., adopt an *information focus*, regret persists even after refund. The authors show that regret persists in these consumers because finding a lower price results in a perception of trust violation. They find that subject to boundary conditions, using a disclaimer which states that the retailer does not claim to offer the lowest prices helps avoid this negative outcome for information-focused consumers. The authors contribute to the literature on outcome reversibility and regret by showing that outcome reversal does not necessarily obviate regret. Additionally, they show that regulatory focus serves as the motivational basis for how consumers view refund promises.

**Key words:** regret, signal focus, regulatory focus, low price guarantees, trust violation, message framing.
Promising to refund money to customers who may find lower prices for the same or similar products is a widespread retailing phenomenon. Referred to as low price guarantees (e.g., Biswas, Dutta and Pullig 2006), price-matching guarantees (e.g., Kukar-Kinney and Walters 2003; Srivastava and Lurie 2001), or price-matching refund policies (Jain and Srivastava 2000), these promises have been largely viewed by researchers as signals of low prices. Additionally, these promises aim to prevent regret after consumers find a lower price in the market (McConnell et al. 2000). Post-purchase regret might raise complaint intention while reducing satisfaction and repurchase intention (Tsiros and Mittal 2000), and marketers are adopting practices to obviate regret. For instance, a recently televised advertisement by Sears promised, “Real Time Price Checks! Next Day Delivery! No Regrets!” (YouTube 2010). In this research, we investigate whether retail price refunds actually prevent consumer regret following their discovery of a lower price.

Regret should be minimal if the negative outcome following a choice is reversed (e.g., Engel, Blackwell and Miniard 1995). One possible negative outcome of choosing a retailer is the consumer’s discovery of a lower price for the purchased product, leading to regret. A price refund is meant to reverse this outcome thereby reducing the consumer’s regret. However, in a pilot study we find that refund has a limited impact on regret. We argue that consumers’ dominant view of a low price signal, i.e., their signal focus (Dutta, Biswas and Grewal 2007), determines whether refund obviates their regret.

Consumers might view a refund promise as a signal that the retailer offers the lowest prices (i.e., information focus) or as a tool to protect them from fluctuating market prices (i.e., protection focus). In Study 1, we measure respondents’ signal focus and find that dominantly information-focused consumers exhibit higher levels of regret and lower repurchase intention
than dominantly protection-focused consumers. Recognizing that refunds do not obviate regret for information-focused consumers, we hypothesize that framing a price guarantee with a disclaimer that the retailer might not have the lowest prices might reduce their regret. In Study 2 we directly manipulate signal focus and find that a disclaimer-based framing helps obviate post-refund regret in information-focused consumers. Subsequently, we extend our understanding of the nature and role of signal focus. In Study 3A, we demonstrate that regulatory focus (e.g., Higgins 1997) serves as the motivational basis for signal focus and in 3B we vary respondents’ signal focus by manipulating their regulatory focus, and replicate the core findings of Study 2. Finally, in Study 4 we demonstrate a boundary condition to the efficacy of disclaimer-based framing. We find that such a framing is less likely to obviate post-refund regret and raise repurchase intention when consumers perceive market prices to be relatively stable. Besides contributing to the literature on market signals by demonstrating the role of signal focus in post-purchase outcomes and providing a conceptual foundation for the construct in regulatory focus theory, we contribute to the literature on regret by showing that when a sense of trust violation follows an undesirable outcome, regret might persist even after the outcome has been reversed.

We organize the rest of the manuscript as follows: First, we develop a conceptual framework to address the question of whether post-refund regret is likely to occur. Second, we discuss the procedures and results of our four main studies. Finally, we discuss our findings and limitations of our research and offer directions for future research.
Refund and Regret

One possible negative outcome of choosing to buy from a retailer is the post-purchase discovery that the same product is available for a lower price in the market, leading to feelings of regret. Research on consumer choice of retailers indicates that consumers prefer retail offers with low price guarantees to avoid this anticipated regret (McConnell et al. 2000). The reasoning is, since the monetary refund associated with a guarantee reverses the negative post-decisional outcome of finding a lower price, it should reduce feelings of regret. However, does refund necessarily obviate felt regret? We posit that regret persists after refund if consumers feel that their trust in the low price signal is violated. Further, how consumers view such signals determines whether a sense of trust violation results following post-purchase discovery of lower prices.

Whether outcome reversal reduces felt regret is an under-researched issue and one that is not straightforward (Gilbert and Ebert 2002; Roese and Summerville 2002; Zeelenberg and Pieters 2007). For example, Tsiros and Mittal (2000) find higher felt regret when decision makers act with the knowledge of a better forgone alternative than when they lack that knowledge, even when outcomes are reversible. Further, a pilot study we conducted indicates that post-refund choice regret (i.e., regret for having chosen to buy from the focal retailer) and search regret (i.e., regret for not searching more prior to purchase) are not significantly lower and repurchase intention is not significantly higher than pre-refund levels (Choice-regret: $M_{\text{pre-refund}} = 5.16$; $M_{\text{post-refund}} = 4.52$; $t_{49} = 1.58; p > .12$; Search regret: $M_{\text{pre-refund}} = 5.48$; $M_{\text{post-refund}} = 5.04$; $t_{49} = 1.10; p > .28$; Repurchase intention: $M_{\text{pre-refund}} = 3.73$; $M_{\text{post-refund}} = 4.23$; $t_{49} = 1.48; p > .14$). We posit that if consumers view price refund promises primarily as devices to protect them from
market price fluctuations, a refund should lower regret. However, if consumers primarily view them as sources of information about the retailers’ price status, a refund does not obviate regret. Next, we provide our rationale for this expectation.

**The Role of Signal Focus and Trust**

Consumer research literature conceptualizes low price guarantees as marketplace signals. According to signaling theory, a seller’s signal informs buyers about some attribute possessed by the seller (e.g., Kirmani and Rao 2000). If buyers do not possess this information, they might perceive the exchange to be too risky and hence avoid it (Grewal, Gotlieb and Marmorstein 1994; Shimp and Bearden 1982). In this sense, the primary job of a low price guarantee is to inform consumers that the retailer’s prices are close to the lower end of the market spread of prices for a product category (e.g., Biswas, Dutta, and Pullig 2006; Biswas et al. 2002; Srivastava and Lurie 2001).

A signal is typically associated with a promise to recompense the receiver if the information it conveys turns out to be erroneous. For example, the refund clause associated with a low price guarantee promises to compensate the buyer if the offer price turns out to be not the lowest in the market. This self-imposed penalty lends credibility to the information conveyed by the signal, with the reasoning that it is in the seller’s best interest to provide true information in order to avoid the penalty (e.g., Boulding and Kirmani 1993; Wernerfelt 1988). Thus, according to signaling theory, a signal’s primary purpose is to inform, and the penalty associated with the signal makes that information credible. In the case of a low price guarantee, consumers infer that a retailer promising to refund money must be confident of its low prices, because it does not make good business sense to offer refunds otherwise (e.g., Jain and Srivastava 2000; Srivastava and Lurie 2001).
A price guarantee favorably affects buyers’ overall perceptions of the retailer’s prices, the offer value, and purchase intention (e.g., Biswas et al. 2002; Kukar-Kinney and Walters 2003; Srivastava and Lurie 2001), presumably because the guarantee indicates that the retailer is low priced. However, researchers have recently posited that consumers vary in terms of how they view low price signals and their primary reason for being attracted to them (Dutta, Biswas, and Grewal 2007). A price guarantee attracts consumers with an information focus mainly because it indicates that the signaling retailer is low priced. In contrast, consumers with a protection focus prefer the guarantee because it promises to protect them from fluctuating market prices. Although both foci might operate in a consumer, outcomes reflect the more dominating focus. Thus, when consumers discover lower market prices after purchasing a product from a refund-promising retailer, they think more (less) unfavorably of the retailer if their information (protection) focus is dominant.

We posit that post-refund regret persists in information-focused consumers due to a perception of trust violation. In contrast, protection-focused consumers do not perceive trust violation, thereby feeling little regret. Trust helps firms develop strong relationships with customers (e.g., Chaudhury and Holbrook 2001; Garbarino and Johnson 1999), especially in a signaling context, since the signal is a source of information (Boulding and Kirmani 1993). To infer information about low prices from a price guarantee reliably, a consumer must trust the retailer. Information-focused consumers, who strongly value and act on a signal’s information, likely trust the retailer to provide accurate information, and post-purchase discovery of a lower price constitutes a violation of this trust. Based on prior findings (e.g., Lewicki and Bunker 1996; Morrison and Robinson 1997; Robinson 1996), Schoorman, Mayer, and Davis (2007, p. 349) conclude that “violation of trust is likely to be an emotional event for the trustor.” The sense of
trust violation that follows post-purchase discovery of a lower price among information-focused consumers might lead to regret, with the likely reasoning, “If I had not chosen this retailer or had searched more, my trust would not have been violated.” Thus, a refund reverses the outcome in terms of the final price paid, yet an information-focused consumer experiences regret because of a violation of the very basis on which she trusted the signal (i.e., the retailer’s promised low-priced status). This would seem to explain the high levels of pre- and post-refund regret we observed in the pilot study. Protection-focused consumers are primarily attracted by the signal’s promise of a refund, and perception of trust violation is not likely. Hence, these consumers should, feel little regret following post-purchase discovery of lower market prices. Stated formally,

\[ H_1: \text{Consumers with relatively higher information focus versus protection focus will experience (a) higher choice regret; (b) higher search regret; and (c) lower repurchase intention.} \]

In Study 1, we examine the effects of signal focus on choice and search regret. Additionally, we attempt to replicate the prior finding that post-refund repurchase intention of information-focused consumers is lower than that of protection-focused consumers (Dutta, Biswas, and Grewal 2007). Finally, by measuring respondents’ signal focus and categorizing them as dominantly information or protection-focused based on that measurement, we examine the untested assumption that signal focus can be a chronic trait (op. cit.), an issue of theoretical and practical importance.
**Study 1**

*Design and Procedure*

Eighty-four undergraduate students (51.2% women) from a large Midwestern U.S. university participated in this two-part study. In the first part, participants received a brief description of three pricing practices, including low price guarantees, and responded to some questions on about these tactics. The price guarantee description was written carefully to avoid sensitizing participants to its informational versus protective role. Participants then responded to a six-item scale with three items for each type of signal focus (Dutta, Biswas, and Grewal 2007; see Appendix for the items). Half of the participants saw the information focus items first.

We conducted the second part of the study after two days. Participants imagined that they were considering purchase of a digital camera and had come across a local retailer’s advertisement for a model priced at $279.99. The ad stated a low price guarantee with the slogan “Nobody Beats Our Prices—Guaranteed!” in bold at the top of the page. At the bottom of the page, a text description outlined the refund conditions; the retailer promised to refund 120% of any price difference within 30 days of purchase. The body of the ad contained information about the camera’s attributes and price.

After studying the ad, participants read a scenario asking them to imagine that they purchased the camera from the retailer after some searching. Two days after purchase they heard from a friend that a different store sold the same camera for $64 less, and when they approached the focal retailer for a refund, they received it as promised. After reading the scenario, participants responded to a two-item scale for choice regret, a one-item measure of search regret, and a three-item scale for repurchase intention, and then answered some demographic questions.
Results

We categorized participants as dominantly information or protection focused by their scores on the respective scales. Participants with higher scores on the summated information focus scale belonged to the information-focus (IF) group; those with higher scores on the summated protection focus scale belonged to the protection-focus (PF) group. This procedure is consistent with those used in the regulatory focus literature where researchers have used the difference of scores on the two foci measures to categorize respondents into two groups for comparing means (e.g., Cesario, Grant and Higgins 2004; Louro, Pieters and Zeelenberg 2005) or to use the difference scores as continuous measures in regression analyses (e.g., Leone, Perugini and Bagozzi 2005; Molden et al. 2009).

A principal components analysis with Varimax rotation revealed a two-factor solution, in which information focus items loaded on one factor (loadings from .78 to .83) and protection focus items loaded on the other (from .78 to .85). The scale reliabilities were adequate ($\alpha_{\text{info}} = .73; \alpha_{\text{protection}} = .75; \alpha_{\text{choice}} = .95; \alpha_{\text{repurchase}} = .96$). The order of presentation of the scales had no effect on the scores. Information focus for the IF group was higher than that for the PF group ($M_{\text{IF info focus}} = 5.44; M_{\text{PF info focus}} = 4.28; t_{82} = 4.54; p < .001$), and protection focus of the PF group was higher than that for the IF group ($M_{\text{PF prot focus}} = 5.77; M_{\text{IF prot focus}} = 3.96; t_{82} = 6.96; p < .001$). Within the IF group, information focus was higher ($M_{\text{info}} = 5.44; M_{\text{prot}} = 3.96; t_{37} = 7.64; p < .001$), and within the PF group, protection focus was higher ($M_{\text{prot}} = 5.77; M_{\text{info}} = 4.28; t_{45} = 8.99; p < .001$). Thus, the participants were categorized appropriately.

$H_1$ predicts outcomes based on respondents’ dominant signal focus. Results of a MANOVA indicate a significant multivariate effect of signal focus (Wilks’ Lambda = .52; $F_3, 80; p < .001$). Consistent with $H_1$, the IF group exhibited higher choice regret ($M_{\text{IF}} = 4.42; M_{\text{PF}} =$...
and search regret (M_{IF} = 5.03; M_{PF} = 3.46; t_{82} = 3.74; p < .001) than the PF group. It also had lower repurchase intention (M_{IF} = 3.33; M_{PF} = 5.70; t_{82} = 8.16; p < .001).

Similar results were seen when each dependent variable was regressed on the difference score (choice regret: R^2 = .41; F = 57.23; p < .001; \beta = .64; search regret: R^2 = .15; F = 14.07; p < .001; \beta = .38; repurchase intention: R^2 = .40; F = 53.57; p < .001; \beta = -.63)\(^1\).

**Discussion**

Results of Study 1 confirm our expectation that even after receiving a refund, dominantly information-focused consumers experience higher levels of regret and lower repurchase intention than protection-focused ones. These effects are of practical importance since they indicate a major problem for retailers. They also lead to an important conceptual question: why would post-refund regret persist in information-focused consumers, i.e., what theoretical mechanism drives this effect? Study 2 investigates if framing of a price guarantee moderates the effects observed in Study 1. Incorporating framing in our design helps us understand the theoretical mechanism behind the observed effects and also provide some guidance to retailers.

**Low Price Guarantee Framing**

Study 1 indicates that retailers, even low-priced ones, are vulnerable to market price fluctuations since issuing a refund might not help them retain all of their customers. The turbulence that characterizes today’s markets makes price fluctuations realistic and even a well-intended low price guarantee might not fully protect the retailer. What can retailers do to protect themselves from such negative effects? We posit that the framing of a refund promise influences whether post-refund regret persists in information-focused consumers. We have argued that the perception of trust violation that follows post-purchase discovery of lower prices leads to these
consumers’ regret. Therefore, framing that makes trust less of an issue in the attractiveness of the signal should obviate regret felt by information-focused consumers. Study 2 tests this prediction.

Low price guarantees vary in their framing and structure (Arbatskaya, Hviid, and Shaffer 2004). The framing we used in Study 1 is common in the marketplace. In this framing, the retailer explicitly promises a low price, with a statement such as: “Nobody beats our prices,” or “We offer the lowest prices on our products,” and adds a refund clause to the statement. Thus, this type of framing makes it explicit that the retailer is low priced. In an alternative structure, a retailer might promise a refund without explicitly claiming low-price status (e.g., Great Indoors, as seen in their stores). We refer to this as an implicit guarantee, where any hint about the retailer’s low-priced status is implicit in the promise for a refund, as inferred by consumers. In yet another structure, the retailer might state a disclaimer that it does not claim to be charging the lowest prices but will refund money to consumers if they find lower market prices. We refer to this as a disclaimer-based guarantee. We choose a disclaimer-based framing based on theoretical and practical considerations. As we elaborate subsequently, we expect that a disclaimer-based framing makes information-related trust less of an issue in evaluating the signal. Consequently we expect any sense of trust violation, and hence felt regret, to be much lower for this framing, compared to explicit or implicit framing. Thus, a disclaimer-based framing helps us better understand and assess the role of trust violation in felt regret. From a practical standpoint, if disclaimer-based framing has the expected outcome then it can be potentially used by retailers as a protection against probable backlash following post-purchase discovery of lower prices.

We posit that for explicit and implicit guarantees, perception of trust violation mediates the effect of signal focus on regret and repurchase intention. Both explicit and implicit guarantees highlight, to varying degrees, the informational role of the signal. Therefore, they
should reinforce consumers’ information focus, especially when such focus is dominant. These consumers place a great deal of trust in the explicit or implicit information about the retailer’s low-priced status. Consequently, when they discover lower prices after purchase they feel a sense of trust violation leading to high levels of regret and low levels of repurchase intention that persist even after the refund. However, protection-focused consumers’ trust in an explicit or implicit guarantee is not violated as long as they receive the refund and hence they have minimal, if any, regret and high repurchase intention.

In contrast, for a disclaimer-based guarantee, consumers’ information focus loses its relevance as a decisional factor in retailer choice and the guarantee’s attractiveness boils down to its protective function. Thus, a disclaimer makes consumers’ information focus, especially when it is dominant, somewhat irrelevant to assessing the signal. This has two important consequences. First, even information-focused consumers largely view a disclaimer-based guarantee as a protective tool. Second, the disclaimer essentially makes information-related trust less of an issue in evaluating the guarantee, thereby preventing any sense of post-purchase trust violation, and hence, regret. Consequently, for dominantly information-focused consumers, a disclaimer-based guarantee should lead to lower levels of regret and higher levels of repurchase intention than an explicit or implicit guarantee. For dominantly protection-focused consumers a disclaimer-based guarantee should not have a different effect on regret and repurchase intention than an explicit or implicit guarantee. Thus, we expect an interaction effect between signal focus and signal framing. Stated formally,

**H2:** Signal focus and signal framing interact with respect to post-refund regret and repurchase intention. When the consumer’s information focus is relatively higher, a guarantee with a disclaimer leads to lower choice regret, lower search regret, and higher repurchase intention than an explicit or implicit guarantee. This effect is absent when the consumer’s protection focus is relatively higher.
Study 2

Design and Procedure

We conducted a 2 (signal focus: information, protection) \( \times \) 3 (signal framing: explicit, implicit, disclaimer) between-subjects experiment with 167 undergraduate students (42.5% women) from the business school of a large Midwestern U.S. university. We manipulated signal focus in the first part of the study and signal framing in the second part. The two parts were ostensibly separated, by referring to them as separate studies conducted by different researchers and by administering them about two hours apart.

In the first part of the study, participants read a fictitious article from Consumer Reports about retail pricing practices and were told that they would be asked about their opinion on these practices. Two practices, reference pricing and odd pricing, were each described in about 100 words, and the third, low price guarantee, was described in 141 words. In the information focus condition, the low price guarantee description highlighted that retailers primarily offered such guarantees to inform consumers about their low price status and that Consumer Reports had found most consumers interpreted the guarantee in that manner. In the protection focus condition, the description highlighted that retailers primarily offered such guarantees to protect consumers from market price fluctuations and that Consumer Reports had found most consumers interpreted the guarantee in that manner. The article was identical in length across the two focus conditions (see Appendix for the focus manipulation). After reading the article, participants responded to some general questions about reference and odd pricing and then completed the six-item signal focus scale from Study 1. Finally, participants provided some demographic information.
The second part of the study was similar to Study 1. Participants imagined that they were in the market for four all-season tires and in their search had come across a local retailer’s ad. The fictitious retailer’s name (ABC Auto-Mart) appeared in large, bold font at the top, and the body of the ad had a picture of Zeon tires with information on product attributes and price ($319.99 for four tires, close to the mid-point of the price range for these tires in the local market). The framing manipulation appeared toward the bottom of the ad. In the explicit condition, the guarantee statement “We guarantee that we offer the lowest prices on all our products” appeared, followed by the refund promise: “If within 30 days of purchasing the [brand and model name] from us, you find another local store selling this model at a lower price, we will refund 120% of the price difference.” The refund statement was the same across all conditions, but the guarantee statement, which is popular in the local market and online, is a variant of the one we used in Study 1. We selected it to be more inclusive in our coverage of the statements in the market. The implicit framing contained all of the elements of the explicit guarantee except for the guarantee statement, which was absent. In the disclaimer-based framing, we replaced the guarantee statement with: “We do not claim that we offer the lowest prices on our products…However…” followed by the common refund statement stated above. A pretest had indicated that this framing is perceived to be as realistic as the other two types of framing.

After studying the ad, participants read a scenario about their purchase, their discovery of a lower price in the market (lower by $64), and receipt of the promised refund from the retailer. Next, they responded to a questionnaire that contained several scales, including those for the dependent variables (choice regret, search regret, and repurchase intention) and scales to measure their focus related to the retailer’s specific low price guarantee (see Appendix). We wanted to determine if they primarily regarded the retailer’s promise as a means to inform or
protect. These measures were modified versions of our general focus scales and enabled us to test our reasoning that different signal framing differentially stimulate consumers’ signal focus. Participants also responded to a scale to assess their perceptions of trust violation. Finally, they answered a manipulation check question and some demographic questions.

Results

Preliminary analyses. Six respondents failed the manipulation check question and were excluded from further analyses, resulting in 78 respondents in the information-focus condition and 83 in the protection-focus condition. The scale reliabilities (Cronbach’s $\alpha$) were: information focus = .75; protection focus = .87; choice regret = .93; repurchase intention = .97; retailer-specific information focus = .84; retailer-specific protection focus = .90; and trust violation = .95. A principal components analysis of the signal focus items resulted in a two-factor Varimax rotated solution (cumulative variance explained = 74%), with loadings from .73 to .88 for information focus and from .88 to .90 for protection focus. Thus, signal focus was manipulated and measured satisfactorily.

The IF group had higher information focus ($M = 4.89$) than protection focus ($M = 3.99$; $t_{78} = 3.83; p < .001$). Also, the PF group had higher protection focus ($M = 5.23$) than information focus ($M = 4.19; t_{81} = 5.22; p < .001$). The IF group also had higher information focus ($M = 4.89$) and lower protection focus ($M = 3.99$) than the PF group ($M = 4.19$ and $5.23$, respectively; $t_{159} = 3.17; p < .002$; and $t_{159} = 5.6; p < .001$, respectively).

Main analyses. As expected, choice regret was positively correlated with search regret and the two regret measures were negatively correlated with repurchase intention (magnitudes of correlation coefficients range between .47 and .67; all $p$’s <.001). Results of a MANOVA indicated a significant interaction effect (Wilks’ Lambda=.89; $F_{6,306} = 3.22; p < .01$). Similarly, the univariate interaction effect between signal focus and signal framing was significant for
choice regret ($F_{2, 155} = 8.58; p < .001$), search regret ($F_{2, 155} = 3.81; p < .02$), and repurchase intention ($F_{2, 155} = 4.41; p < .01$), in support of H2. Figure 1 graphically displays the means.

 We conducted planned comparisons to investigate the pattern of interaction. Framing influenced choice regret ($F_{2,76} = 14.94; p < .001$), search regret ($F_{2,76} = 8.82; p < .001$), and repurchase intention ($F_{2,76} = 7.75; p < .001$) in the information-focus condition. Choice regret was higher for explicit framing ($M = 4.82$) than implicit framing ($M = 3.81$; $t_{76} = 2.00; p < .05$), but neither search regret nor repurchase intention differed across explicit ($M_{\text{search}} = 4.72$; $M_{\text{repurchase}} = 3.55$) and implicit framing ($M_{\text{search}} = 4.69; t_{76} = .05; p > .96; M_{\text{repurchase}} = 3.92; t_{76} = .82; p > .42$). As expected, choice and search regret for explicit framing were higher and repurchase intention were lower than in the disclaimer condition ($M_{\text{disclaimer-choice}} = 2.14; t_{76} = 5.39; p < .001$; $M_{\text{disclaimer-search}} = 2.82; t_{76} = 3.62; p < .001$; $M_{\text{disclaimer-repurchase}} = 5.23; t_{76} = 3.72; p < .001$). Finally, choice and search regret for implicit framing were higher and repurchase intention were lower than in the disclaimer condition ($t_{76} = 3.39; p < .001$; $t_{76} = 3.60; p < .001$; $t_{76} = 2.91; p < .01$, respectively). In contrast, in the protection focus condition, price guarantee framing had no effect on choice regret ($F_{2,79} = .98; p > .38$), search regret ($F_{2,79} = 1.93; p > .15$), or repurchase intention ($F_{2,79} = .01; p > .99$). Thus, the findings support H2.

Additional analyses. We conducted additional analyses to replicate Study 1 findings, and test our key theoretical assumptions. As in Study 1, the main effects of signal focus on all of the dependent variables were significant. Specifically, choice and search regret were higher and repurchase intention were lower for explicit framing in the information-focus condition ($M_{\text{choice}} = 4.82; M_{\text{search}} = 4.72; M_{\text{repurchase}} = 3.55$) than in the protection-focus condition ($M_{\text{choice}} = 2.31; t_{52} = 5.92; p < .001$; $M_{\text{search}} = 3.28; t_{52} = 2.81; p < .01$; $M_{\text{repurchase}} = 4.82; t_{52} = 2.87; p < .01$). Similarly,
for implicit framing, choice regret was higher and repurchase intention were lower in the information-focus condition (M\text{choice-info} = 3.81; M\text{choice-prot} = 2.72; t_{49} = 2.20; p < .03; M\text{repurchase-info} = 3.92; M\text{repurchase-prot} = 4.81; t_{49} = 2.05; p < .05). However, search regret did not differ across the signal focus conditions for the implicit framing (M\text{search-info} = 4.69; M\text{search-prot} = 4.40; t_{49} = .54; p > .59). For the disclaimer-based guarantee, signal focus had no effect on choice regret (M\text{info} = 2.14; M\text{protection} = 2.20; t_{54} = .13; p > .90), search regret (M\text{info} = 2.82; M\text{protection} = 3.54; t_{54} = 1.17; p > .25), or repurchase intention (M\text{info} = 5.23; M\text{protection} = 4.76; t_{54} = 1.06; p > .30). These results indicate the active role of information focus in determining post-refund outcomes for explicit and implicit signal framing.

We assumed that for explicit and implicit framing, consumers with a dominant information focus would have a stronger perception of trust violation than those with a protection focus. Perceived trust violation was higher for information focus (M = 4.87) than protection focus (M = 2.74; t_{52} = 4.79; p < .001). The effect for implicit framing was marginally significant (M\text{information} = 3.79; M\text{protection} = 2.85; t_{49} = 1.9; p < .06). Perception of trust violation did not differ across focus for the disclaimer-based guarantee (M\text{information} = 2.64; M\text{protection} = 2.23; t_{54} = 1.10; p > .28). Further, trust violation mediated the effect of focus on choice and search regret. First, focus had a main effect on choice and search regret. Second, trust violation influenced choice regret (R^2 = .47; F = 138.57; p < .001; β = .68) and search regret (R^2 = .19; F = 36.25; p < .001; β = .43). Third, focus had a main effect on trust violation (M\text{information} = 3.73; M\text{protection} = 2.60; t_{159} = 4.15; p < .001). Finally, ANCOVAs revealed that the effect of focus on regret became statistically non-significant when trust violation was included as a covariate (choice regret: F_{1, 158} = 2.83; p > .09; search regret: F_{1, 158} = .71; p > .40).
We also tested our assumption regarding the effect of framing on perceptions of trust violation. As expected, framing influenced perceived trust violation in the information-focus condition ($F_{2,76} = 12.31; p < .001$) but not in the protection-focus condition ($F_{2,79} = 1.20; p > .31$). In the information focus condition, both explicit and implicit framing led to higher levels of perceived trust violations than the disclaimer-based guarantee ($M_{\text{explicit}} = 4.87; M_{\text{disclaimer}} = 2.64; t_{76} = 4.95; p < .001; M_{\text{implicit}} = 3.79; t_{76} = 2.59; p < .001$).

Finally, we assumed that for information-focused respondents, a disclaimer-based guarantee would reduce their information focus related to the focal retailer. Consistent with this assumption, we found that in the information-focus condition, framing influenced the retailer-specific information focus ($F_{2,76} = 9.83; p < .001$) and retailer-specific protection focus ($F_{2,76} = 4.23; p < .02$). Specifically, retailer-specific information focus was higher for the explicit ($M = 4.48$) and implicit ($M = 4.73$) guarantees than for the disclaimer-based guarantee ($M = 3.29; t_{76} = 3.38; p < .001; t_{76} = 4.13; p < .001$, respectively). Retailer-specific protection focus was higher for the guarantee with disclaimer ($M = 5.48$) than for the explicit guarantee ($M = 4.37; t_{76} = 2.65; p < .01$) or implicit guarantee ($M = 4.53; t_{76} = 2.31; p < .02$). Therefore, for respondents in the information-focus condition, the disclaimer-based guarantee reduced their information focus and heightened their protection focus with respect to the focal retailer’s promise, compared with the explicit and implicit guarantees.

**Discussion**

Study 2 results confirm that post-refund regret persists in information-focused consumers because of a sense of trust violation. A disclaimer-based framing can mitigate this effect by making trust less of an issue in the evaluation of the signal. However, neither past research nor our findings shed any light on the conceptual foundation of signal focus. Where
does signal focus come from? We conducted Studies 3A and 3B to test our proposition that signal focus is grounded in people’s regulatory focus (Higgins 1997) and to replicate the core findings of Study 2 by manipulating respondents’ regulatory focus, respectively. These studies allow us to extend prior work on signal focus (Dutta, Biswas and Grewal 2007) by providing a conceptual foundation for the construct.

**Motivational Bases of Signal Focus**

Regulatory focus theory can explain the motivational bases of signal foci. This theory posits that people’s regulatory foci help them self-regulate their pursuit of behavioral goals by serving as motivational states that affect their feelings, thoughts and actions (e.g., Higgins 1997; 1999; 2002). Thus, individuals might have a promotion focus, whereby they pursue a goal by approaching desired states or they might have a prevention focus whereby they seek to avoid undesired end-states. Regulatory foci can be chronic to individuals while also being responsive to situational primes (e.g., Grewal et al. 2010; Shah and Higgins 1997). Particularly relevant to the present context is the proposition that regulatory focus can influence people’s information processing (Aaker and Lee 2001; Florack, Scarabis and Gosejohann 2005; Friedman and Förster 2001; Pham and Higgins 2005). For instance, it has been shown that regulatory focus affects consumers’ sensitivity to an advertiser’s manipulative intent, as inferred from cues in the ad (Kirmani and Zhu 2007). We posit that consumers’ regulatory foci affect their processing of price guarantees such that dominance of promotion (prevention) focus leads to dominance of information (protection) focus.
This expectation is consistent with the propositions and findings related to regulatory focus theory. People are expected to emphasize aspects of a message that align with their dominant motivational states. Thus, people with dominantly promotion focus would emphasize different aspects of a message than those with dominantly prevention focus (Pham and Higgins 2005). Promotion focus makes people seek accomplishments by reaching a desired end-state and leads to a preference for information that facilitates advancement toward that end-state (Higgins 2002; Pham and Higgins 2005; Safer 1998). In the context of a low price guarantee, the prospect of paying the lowest price likely represents a desired end-state for dominantly promotion-focused consumers, leading them to emphasize that aspect of the signal. Further, dominance of promotion focus leads to a heightened sensitivity to gains (Pham and Higgins 2005; Shah, Higgins and Friedman 1998; Zhou and Pham 2004). The prospect of paying a lower price to the guarantee-issuing retailer compared to other retailers might seem like a gain to dominantly promotion-focused consumers thereby attracting them toward this aspect of the signal. Hence, promotion focus should lead to information focus.

On the other hand, prevention focus makes people avoid an undesired end-state, leading to a preference for security and protection (Higgins 2002; Pham and Higgins 2005; Safer 1998). Consequently, dominance of prevention focus makes people sensitive to information related to avoidance of risks or losses (Pham and Higgins 2005; Shah, Higgins and Friedman 1998; Zhou and Pham 2004). Therefore, we expect people with prevention focus to emphasize the refund statement because it assures protection from possible future losses due to lower market prices. Thus, prevention focus is the motivational basis for protection focus. Study 3A examines the predicted relationship between regulatory and signal focus.
Study 3A

Design and Procedure

Fifty-three students (45.3% female) from a large U.S. university were told that they would participate in small studies being conducted by multiple researchers. We manipulated regulatory focus as done by Lockwood, Jordan, and Kunda (2002) and Sengupta and Zhou (2007). Participants were asked to report on how they dealt with their academic goals. In the promotion focus condition participants were asked to think of a course that they were taking in the current semester and list two positive academic outcomes that they would like to achieve in that course. Next, they were asked to describe the strategies that they could adopt to successfully promote those outcomes. Participants in the prevention focus condition were asked to think of a course that they were taking in the current semester and list two negative academic outcomes that they would like to avoid in that course. Next they were asked to describe the strategies that they could adopt to successfully prevent those outcomes.

Next, the participants proceeded to a “personality” study where they were asked to select three of six choices to indicate their primary strategies for being a good friend. The first three of these choices aligned with promotion focus and the rest aligned with prevention focus. This approach has been used to test different manipulations of regulatory focus (Higgins et al. 1994; Sengupta and Zhou 2007; Zhou and Pham 2004). Finally, the respondents participated in a “retailing” study where they were asked to provide their opinions about low price guarantees by responding to the six item signal focus scale we used in Study 2. We expected those in the promotion condition to be more information focused, whereas those in the prevention condition to be protection focused. At the end, participants provided some demographic information.
Results

In support of our regulatory focus manipulation, the promotion condition revealed means of 1.96 for the promotion-related items and 1.04 for the prevention-related items on the “friendship strategy” choices (t\(_{26} = 5.51; \ p < .001\)). In contrast, the prevention condition revealed means of 2.08 for the prevention-related choices and .92 for the promotion-related choices (t\(_{25} = 6.08; \ p < .001\)).

The reliabilities (Cronbach’s α) for information focus and protection focus scales in the “retailing” study were .72 and .86, respectively. A principal components analysis of these scale items resulted in a two-factor Varimax rotated solution (cumulative variance explained = 72.1%), with loadings from .81 to .89 for information focus and from .67 to .92 for protection focus. As expected, in the promotion condition information focus (M = 5.25) was higher than protection focus (M = 3.69; t\(_{26} = 7.09; \ p < .001\)); in the prevention condition protection focus (M = 5.33) was higher than information focus (M = 3.47; t\(_{25} = 4.80; \ p < .001\)). Participants in the promotion condition also had a higher information focus (M = 5.25) and lower protection focus (M = 3.69) than those in the prevention condition (M = 3.47 and 5.33, respectively; t\(_{51} = 6.90; \ p < .001\); and t\(_{51} = 5.45; \ p < .001\), respectively). These results show that regulatory focus serves as the motivational basis for signal focus. Next, we replicate the core findings of Study 2 using this theoretical premise.
Study 3B

Design and Procedure

We conducted a 2 (regulatory focus: promotion; prevention) × 2 (signal framing: explicit; disclaimer) between-subjects experiment with 119 undergraduate students (43.7% women) from a large U.S. university. The study was conducted in two parts, and respondents were told that they were participating in two separate studies. In the first part, we manipulated regulatory focus and included the manipulation check measures from Study 3A. The second part was conducted about 30 minutes later, and was identical to that of Study 2, except for four differences. First, we used only two signal framing conditions (explicit and disclaimer). Second, we asked respondents to report their thoughts after reading the scenario describing post-purchase discovery of lower price followed by refund. We wanted to see if these thoughts were consistent with an assumption we made in Study 2, i.e., a disclaimer suppresses negative thoughts in information-focused consumers. Third, we added one item to the choice regret scale and two items to the search regret scale to avoid concerns that our previous scales might be “sparse”. Fourth, we measured participants’ general signal focus in the second part of the study only, besides measuring respondents’ retailer-specific signal focus. We did this to help reinforce the notion that the two parts of the study were indeed separate. Also, this helped us test our assumption that framing affects consumers’ retailer-specific focus, but not their general focus.

Results

Preliminary analyses. Five respondents were excluded from further analyses for failing the ad manipulation check, leaving 56 in the promotion focus condition and 58 in the prevention focus condition. As in Study 3A, the regulatory focus manipulation was successful. The scale
reliabilities ranged from .77 to .96 and the factor solution for the signal focus scales was adequate. Further, regulatory focus affected signal focus as expected and this effect did not differ across the two types of framing. Thus, respondents were dominantly information-focused (protection-focused) in the promotion (prevention) condition. We discuss the rest of the results in terms of respondents’ signal focus.

**Main analyses.** MANOVA indicated a significant interaction between signal focus and framing (Wilks’ Lambda = .84; F3, 108 = 7.05; p < .001). Also, in support of H2, the univariate interactions were significant (choice regret: F1,110 = 13.80; p < .001; search regret: F1, 110 = 4.62; p < .03); and repurchase intention: F1, 110 = 17.59; p < .001). Figure 2 displays the pattern of means.

As expected, in the information focus condition choice and search regret were higher (Mexplicit-choice = 4.39; Mexplicit-search 5.20) and repurchase intention was lower for explicit framing (Mexplicit-repurchase = 3.57) than for disclaimer-based framing (Mdisclaimer-choice = 1.92; t54 = 6.70; p < .001; Mdisclaimer-search = 3.69; t54 = 3.15; p < .01; Mdisclaimer-repurchase = 5.24; t54 = 4.89; p < .001). However, in the protection focus condition, framing had no effect on choice regret (t56 = 1.00; p > .32), search regret (t56 = .03; p > .98), or repurchase intention (t56 = 1.07; p > .29).

Participants’ thoughts were coded into five categories by two independent judges who were not aware of the hypotheses. These categories were: negative comments about low price guarantee; negative comments about store; positive comments about store; positive comments about low price guarantee; other comments. Inter-rater reliability (Perreault and Leigh 1989) was .92 and disagreements between the raters were resolved through discussion. Overall, the thought data reflected our theoretical expectation. Negative comments about the low price guarantee...
guarantee or the store stemmed largely from a sense of betrayal (e.g., “ABC Auto mart did not have the lowest prices... I would have bad feelings because I’d feel that ABC lied to me). However, positive comments largely reflected appreciation for earning the promised refund (e.g., “I am extremely pleased that Automart honored their LPG and refunded me not only what the lower price was in another store but the extra 20% also”). Additionally, respondents seemed to appreciate the honesty reflected in the disclaimer-based framing (e.g., “ABC did as promised. ABC did not hassle me. ABC did not advertise that they had the lowest prices, but did offer to match or beat any competitor price”).

Overall, information-focused respondents had more negative thoughts in the explicit framing condition (M=1.35) than in the disclaimer condition (M=.19; t55=4.45; p<.001). Also, these respondents had more positive thoughts in the disclaimer-based framing condition (M=1.46) than in the explicit framing condition (M=.74; t55=2.83; p<.01). However, framing had no effect on the negative thoughts of the protection-focused respondents (Mexplicit=.21; Mdisclaimer=.23; t56=.11; p>.92) or on their positive thoughts (Mexplicit=.1.64; Mdisclaimer=1.67; t56=.08; p>.94). Thus, the thought data support our assumptions about the effects of framing.

**Additional analyses.** As expected for the explicit framing, perceived trust violation was higher when information focus was dominant (M = 5.31) than when protection focus was dominant (M = 2.50; t56 = 7.54; p < .001). Perceptions of trust violation did not differ across signal focus for the disclaimer-based guarantee (Minformation = 2.60; Mprotection = 2.31; t54 =.67; p > .51). Additionally, as in Study 2, an ANCOVA conducted after confirming the prerequisite effects for mediation testing showed that trust violation mediated the effect of focus on choice and search regret (choice regret: F1,111 = .81; p > .37; search regret: F1,111 = 1.49; p > .23).
We assumed that for information-focused respondents, a disclaimer-based guarantee would reduce (raise) their retailer-specific information (protection) focus but would not affect their general signal focus. Consistent with this assumption, retailer-specific information focus was higher for the explicit guarantee ($M = 4.91$) than for the disclaimer-based guarantee ($M = 3.65$; $t_{54} = 3.46$; $p < .001$) when information focus was dominant. Also, for this group, retailer-specific protection focus was higher for the disclaimer-based guarantee ($M = 5.96$) than for the explicit guarantee ($M = 4.13$; $t_{54} = 4.95$; $p < .001$). Further, as expected, framing had no effect on these respondents’ general information focus ($M_{\text{explicit}}=5.02$; $M_{\text{disclaimer}}=5.21$; $t_{54}=.64$; $p>.53$) or protection focus ($M_{\text{explicit}}=4.14$; $M_{\text{disclaimer}}=4.15$; $t_{54}.02$; $p>.98$).

While results of Study 2 and 3B show that a disclaimer can have beneficial post-purchase effects we sought to identify a boundary condition for its effectiveness. We posit that consumers’ perception of the intensity of market price fluctuation limits the effectiveness of a disclaimer and conduct an additional study to test this proposition.

**Study 4: When Might Disclaimers Not Work?**

Consumers might not take a disclaimer at face value when they have negatively valenced attributions about the retailer’s motive in using the disclaimer. Particularly, a disclaimer might not be effective if consumers suspect opportunistic signaling following post-purchase discovery of lower prices. Although not demonstrated, perceptions of opportunistic signaling have been thought to play a role in post-purchase outcomes (Dutta, Biswas and Grewal 2007). We expect perceptions of market price fluctuation to limit a disclaimer’s effectiveness by triggering suspicion of opportunistic signaling among information-focused consumers but not
among protection-focused ones. When information-focused consumers perceive market prices for a product to fluctuate little, finding a lower price after purchase might lead them to suspect that the retailer did not provide the disclaimer with the best of intentions. This is because the lower price cannot be readily attributed to price fluctuation indicating that the retailer never intended to offer a low price after all. Thus, consumers might feel that the disclaimer is a ruse the primary purposes of which are to attract them and create plausible deniability in case they find lower prices. Since these consumers care a lot about the information in a signal, these thoughts might cause them to regret choosing a retailer who might have signaled irresponsibly. When these consumers expect prices to fluctuate a lot, they are less likely to suspect opportunistic use of the disclaimer as they can more plausibly attribute post-purchase discovery of lower prices to market price uncertainty. Protection-focused consumers mainly care about monetary protection. Given their lower sensitivity to the signal’s informational component, they are not swayed by conditions that might indicate opportunistic signaling to information-focused consumers. Therefore, we expect an interaction effect between signal focus and perceived price fluctuation such that signal focus has no effect on choice regret, search regret and repurchase intention when perceived price fluctuation is high. However, when price fluctuation is low, information focus leads to higher regret and lower repurchase intention than protection focus. We conducted a study to verify this expectation.

Study Description and Results

Eighty participants took part in a 2 (signal focus: information; protection) x 2 (perceived price fluctuation: low; high) between-subjects experiment that was conducted in two parts like Study 2. In Part 1, signal focus was manipulated as in Study 2, i.e., through an article, ostensibly from Consumer Reports. Participants were provided with price fluctuation information on 4
products in another ostensible *Consumer Reports* article that intended to inform consumers about market prices. The article stated that *Consumer Reports* had conducted a study where they rated the intensity of short-term market price fluctuation for 4 products with a 3-point scale ranging from “Fluctuate a little” to “Fluctuate a lot”. Prices of car tires, the product to be used in Part 2 of the study, were shown to fluctuate a little or a lot, depending on the manipulated condition. The Part 2 of the study, conducted two days after the first part, was identical to that of Study 2, but only the disclaimer-based framing was used. Besides measuring the dependent variables, we assessed respondents’ perception of opportunistic signaling with 3 items (see Appendix).

The manipulation of signal focus worked as intended and all respondents passed the manipulation check on perceived price fluctuation. Also, all scale reliabilities were above .81. As expected, the interaction effect between signal focus and perceive price fluctuation was significant for choice regret ($F_{1, 75}=9.50; p<.01$), search regret ($F_{1, 75}=4.42; p<.04$), and repurchase intention ($F_{1, 76}=5.60; p<.02$). Signal focus had no effect on these variables when perceived price fluctuation was high (all p’s >.42). When fluctuation was low, information focus led to higher choice regret ($M=3.92$), higher search regret ($M=4.83$), and lower repurchase intention ($M=4.33$) than protection focus ($M_{\text{choice regret}}=2.25; t_{37}=3.64; p<.001$; $M_{\text{search regret}}=3.04; t_{37}=4.01; p<.001$; $M_{\text{repurchase intention}}=5.39; t_{37}=2.86; p<.01$). Further, perceived signal opportunism did not vary across focus for high price fluctuation ($M_{\text{IF}}=2.41; M_{\text{PF}}=2.70; t_{39}=.57; p>.57$). However, information focus led to higher perceived signal opportunism ($M=4.60$) than protection focus ($M=2.61; t_{37}=4.11; p<.001$) when perceived price fluctuation was low. These results indicate that perceived intensity of price fluctuation can limit the post-purchase effectiveness of disclaimer-based framing. In the next section, we discuss our findings across the four studies.
General Discussion

Product and price signals from marketers have significant impact on customer purchase and repurchase behaviors. In this paper, we examine whether monetary retail refunds associated with low price signals help prevent consumer regret after they discover lower prices for purchased products. Our contribution relates to three major domains of research: regret, role of signal focus and framing in post-purchase effects of low price guarantees, and consumers’ motivational foci. We make a theoretical contribution by demonstrating that the role of outcome reversibility in post-decisional felt regret is anything but intuitive (Tsiros and Mittal 2000). Price refunds associated with low price guarantees are meant to reverse a possible negative outcome of choosing to buy from a retailer, that of discovering lower market prices after purchase. Based on past research (e.g., McConnell et al. 2000; Estelami, Grewal and Roggeveen 2007), one would expect that honoring low price guarantees by issuing refunds would reduce post-purchase regret related to the choice of the retailer and regret for not searching enough for a lower price. We draw upon research on trust from the marketing and organizational behavior literature to argue and demonstrate that when regret ensues from a perception of trust violation, it might not be mitigated by outcome reversal. We show that the extent of perceived trust violation depends on how consumers view a low price signal and how the signal is framed. Finally, we demonstrate that regulatory focus acts as the motivational basis for how consumers view such signals.

Contributions and Implications

Our findings indicate that whether price refunds obviate regret after consumers find lower market prices for a purchased product depends on how the consumers view the refund promise. Consumers who primarily regard such promises as signals designed to inform them about the retailer’s price status will experience more regret due to perceived trust violation than those who
primarily view the signals as protective devices. Thus, our findings strengthen the claim that consumers’ dominant conceptualization of price guarantees affects outcomes of their discovery of lower market prices after purchase (Dutta, Biswas, and Grewal 2007).

We demonstrate that people’s regulatory focus, which can be chronic or situational (e.g., Higgins 1997; 1999), serves as the motivational basis for their signal focus. Thus, people with a dominantly promotion (prevention) focus have a dominantly information (protection) focus. This provides a theoretical basis for our expectation and finding that like regulatory focus, signal focus is a trait that also adapts to situations.

We show the importance of price guarantee framing in neutralizing probable negative post-refund outcomes for information-focused consumers. In Studies 2 and 3B, information-focused consumers viewed a disclaimer-based guarantee in a more protective light, and this prevented any regret they otherwise would have experienced following their discovery of a lower price after purchase. However, their general signal focus dominated outcomes when the guarantee explicitly or implicitly claimed a low price status. It appears that depending on the situation, consumers determine, perhaps non-consciously, whether their general signal focus is instrumental in evaluating a specific offer. Subsequently, they may use this general focus to evaluate the offer (as for an explicit or implicit framing) or may not use it (as for a disclaimer-based framing). Also, if necessary, information-focused consumers adapt their focus to the specific signal framing, as we found in case of the disclaimer-based guarantee where their retailer-specific signal focus was dominantly protection oriented. However, this does not mean that consumers’ general focus is not useful, only that it adapts to a specific situation. Thus, although consumers might adapt their focus to a specific framing on one occasion, they are expected to approach future retail offers with their usual general focus, unless situation demands
otherwise. These expectations and effects are supported by Schwarz’s (2006) “situated cognition” perspective where human cognition is viewed to serve instrumental roles in facilitating people’s interactions with the world and hence such cognition is highly adaptive to specific contexts.

Having demonstrated that a disclaimer-based framing might effectively prevent regret in information-focused consumers, we provide some evidence that a disclaimer’s efficacy is subject to boundary conditions (Study 4). We find that when information-focused consumers discover lower prices after purchase and are also aware that market prices fluctuate a little, they feel higher post-refund regret and lower repurchase intention than protection-focused consumers. Our results indicate that information-focused consumers attribute post-purchase lower price to market price fluctuation when its perceived intensity is high but attribute it to possible opportunistic use of the disclaimer when they perceive market prices to be more stable. In this context, opportunistic use occurs when a retailer uses a disclaimer largely as a ruse to attract consumers, without little genuine concern for protecting them.

We make an important theoretical contribution by demonstrating the pivotal role of trust in shaping post-purchase outcomes related to low price signals. Because trust is essential for favorable pre-purchase consumer response to signals, we can expect that perception of a violation of that trust would lead to undesirable consequences. Thus, if a signal is defaulted, i.e., the information it purported to convey turns out to be erroneous (Kirmani and Rao 2000), undesirable consequences might follow if consumers feel that their trust in the signal has been violated. For price guarantees, we demonstrate that perceptions of trust violation occur only for consumers who largely view those guarantees as sources of information about the retailer’s price status, not for those who primarily perceive them as protective tools. Consequently, information-
focused consumers, but not protection-focused ones, feel post-refund regret. The exact nature of trust violation felt by information-focused consumers depends on how the signal is framed. For explicit and implicit framing, perception of trust violation occurs because information-focused consumers strongly expect these signals to indicate low prices and a post-purchase discovery of a lower price violates that expectation. While a disclaimer-based framing can potentially protect from trust violation in this sense, such framing can become questionable if its opportunistic use is suspected, as occurs when these consumers perceive market prices to be stable. To the extent that consumers expect honest use of a signal, opportunistic signaling constitutes violation of trust in a sense. We note a subtle possibility in this regard: trust likely matters to protection-focused consumers also, but for them, the trust is related to the promise of refund. As long as the retailer fulfills that promise, a perception of trust violation is not likely. The experimental scenarios we used described a smooth, hassle-free refund process. We expect undesirable outcomes for even protection-focused consumers if their refund experience is unpleasant.

Consumer trust is pivotal to retail success and consumer mistrust can be deleterious to retailers (Goodstein 1994). Importantly for managers, our findings indicate that retailers are not entirely protected, even when they issue refunds without procedural hassles. Some consumers would experience regret even after receiving a refund, primarily due to a sense of trust violation. We used a guarantee that promised to refund 120% of the price difference; the observed effects might be stronger for higher refund levels. However, retailers can potentially circumvent these undesirable post-purchase effects relatively inexpensively, by providing a disclaimer along with the refund statement. Such a disclaimer can help prevent regret, even among consumers who primarily see a price guarantee as a signal of the retailer’s low-price status. This relatively inexpensive fix might offer truly low-priced retailers the protection they justifiably desire.
However, our advocacy for disclaimer-based framing has important caveats. First, as we show in our final study, post-refund outcomes can be negative for a disclaimer-based framing if information-focused consumers suspect that the framing was motivated by the retailer’s intention to attract consumers and not by an intention to protect them. Second, given that information-focused consumers are primarily attracted to low price signals for their informational value, they might not be attracted to disclaimer-based signals to begin with. If this occurs, then a disclaimer-based framing might not be useful. While this is possible, and future research should investigate possible pre-purchase effects of disclaimers, we would like to note a potentially mitigating factor for a disclaimer’s undesirable pre-purchase effect. Consistent with Schwarz’s (2006) “situated cognition” perspective, our results indicate that consumers adapt their signal focus to the specific framing in question such that even information-focused consumers view a disclaimer-based guarantee in a protective light. While we cannot predict with much confidence, and future research needs to verify this, this adaptation of focus might make the disclaimer-based guarantee attractive for these consumers. This effect is especially likely when consumers have other reasons to like the retailer, they have some purchase urgency, etc. Interestingly, if future research does find a disclaimer-based framing to make the signal less attractive for information-focused consumers then retailers face a dilemma. Should retailers offer an explicit or implicit guarantee which can potentially backfire after purchase or offer one with a disclaimer that can prevent such backlash while reducing pre-purchase attractiveness of the signal?

Finally, our findings present a dilemma of sorts. We offered a potentially easy way for retailers to avoid post-purchase negative outcomes, which should benefit retailers that try to offer low prices and issue guarantees that are genuine in that sense. However, high-priced retailers might unduly exploit disclaimers to their advantage. Such retailers might attract consumers with
a low-price guarantee, betting that most consumers would not look for lower prices. The disclaimer protects the retailer from probable backlash if some consumers find lower prices. Thus, high-priced retailers might abuse the disclaimer-based solution we suggest. Although value-conscious consumers express higher post-purchase search intentions in response to an offer associated with a price guarantee (compared with an offer without such a guarantee), we do not know the degree to which such intentions convert to behavior (Dutta and Biswas 2005). Thus, a concern for abuse remains with the use of low price guarantees.

**Limitations and Future Research**

Although we investigated low price signals only, these findings can potentially extend to any signal that can be interpreted as an informational or a protective device (e.g., satisfaction guarantees, warranties, flexible return policies, money-back guarantees, etc.). For such signals, we expect that knowledge of outcome reversibility or actual outcome reversal might not obviate regret felt by information-focused consumers. Furthermore, the framing and structure of such signals might be suitably molded to blunt the undesirable post-purchase consequences of information focus, particularly by taking trust out of the signal evaluative process, as we have suggested with disclaimer-based framing for low price guarantees. Thus, for information-focused consumers, the disclaimer essentially makes trust less of an issue in evaluating the guarantee, thereby preventing any sense of trust violation, and hence regret, following post-purchase discovery of lower prices. Future research should investigate if these effects occur for other signals.

In our designs, we did not incorporate the magnitude of difference between the paid price and the later discovered lower price. Is there a threshold for this difference below which regret does not occur? Does this threshold depend on the product’s base price? Future research should
investigate these issues. Also, we focused on a price-related signal, whereas various other kinds of signals, typically in the form of some sort of guarantee, abound in the marketplace. Does signal focus help determine post-purchase outcomes for those signals also? If so, can they be modified similarly to overcome the disparaging effects of information focus? For example, does product failure following purchase under a strong warranty lead to regret, even after the warranty is redeemed? Additionally, low price guarantees have been investigated for their implications for consumer perceptions of fairness (Kukar-Kinney, Xia and Monroe 2007) and this research can be extended to post-purchase refunds. Might information-focused consumers who find lower prices after purchase think it is unfair for retailers to issue low price guarantees? Finally, we have not identified a likely correlate of signal focus that marketers could use to segment consumers. We believe this to be an important goal for future research.
References


YouTube (2010), [http://www.youtube.com/watch?v=UmMLBiXQY7g&NR=1](http://www.youtube.com/watch?v=UmMLBiXQY7g&NR=1) (accessed February 2010).


Footnotes

1 We retested H1 with a median split of the respondents into two groups, high (low) information focus and low (high) protection focus. As expected, the high information focus respondents had higher choice-regret ($M=5.25; t_{36}=6.11; p<.001$) and search-regret ($M=5.25; t_{36}=2.31; p<.03$) and lower repurchase intention ($M=2.97; t_{36}=5.62; p<.001$) than the high protection focus respondents ($M_{choice-regret}=2.42; M_{search-regret}=3.94; M_{repurchase intention}=5.44$).

2 We do not expect consumers’ general signal focus to change after they are exposed to a specific guarantee framing, but a specific framing (e.g., with or without a disclaimer) might make consumers view *the specific retailer* as primarily motivated by an intention to protect (retailer-specific protection focus) or inform (retailer-specific information focus). When even information-focused consumers view a guarantee with disclaimer, they might infer a largely protective motive and respond accordingly. Thus, consumers’ cognition is expected to be adapted to the specific retail offer, in line with Schwarz’s (2006) “situated cognition” perspective. We elaborate on this perspective in the discussion section and provide support for this reasoning in our empirical studies.
Figure 1
Study 2 Pattern of Means

(A): Choice-regret

(B): Search-regret

(C): Repurchase Intention
Figure 2
Study 3B Pattern of Means

(A): Choice-regret

Promotion Focus | Prevention Focus
---|---
Explicit Framing: 4.39 | Disclaimer: 1.92
Explicit Framing: 2.67 | Disclaimer: 2.26

(B): Search-regret

Promotion Focus | Prevention Focus
---|---
Explicit Framing: 5.2 | Disclaimer: 3.69
Explicit Framing: 3.21 | Disclaimer: 3.2

(C): Repurchase Intention

Promotion Focus | Prevention Focus
---|---
Explicit Framing: 3.57 | Disclaimer: 5.24
Explicit Framing: 5.77 | Disclaimer: 5.4
Appendix

(A) Measures used:

Unless stated otherwise, all scale items are anchored by 1 = “strongly disagree” and 7 = “strongly agree.”

General information focus (Studies 1, 2, and 4):

1. By giving a Low Price Guarantee, a retailer mainly informs consumers that its prices are the lowest in the market.
2. If a retailer is not extremely confident of informing consumers that it charges the lowest prices in the market, it would not offer a Low Price Guarantee.
3. I am primarily attracted to a retailer that offers a Low Price Guarantee because I feel confident that the prices I would pay to this retailer are the lowest in the market.

General protection focus (Studies 1, 2, and 4):

1. By giving a Low Price Guarantee, a retailer mainly promises that it will protect consumers from fluctuating market prices by paying them a refund if they found a lower price elsewhere.
2. An LPG-offering retailer may not necessarily have the lowest price in the market, but the retailer will protect consumers financially if they find a lower price.
3. I am primarily attracted to a retailer that offers a Low Price Guarantee because I feel confident that in case I find lower prices in the market I will be financially protected by the refund.

Choice regret (pilot, Studies 1, and 2):

1. You feel sorry for choosing to buy the (product name) from this retailer.
2. You regret choosing this retailer for your purchase.
3. You wish you had not chosen to buy the tires from ABC Auto-Mart. (additional item in Study 3B and 4)

**Search regret** (pilot, Studies 1, and 2):

1. You regret for not looking around for a better price than this retailer in the first place.

2. You wish you had checked more stores for better prices for the tires before buying from ABC Auto-Mart. (additional item in Study 3B and 4)

3. You feel sorry for not searching around more for a lower price for the tires before buying from ABC Auto-Mart. (additional item in Study 3B and 4)

**Repurchase intention** (pilot, Studies 1, 2, and 3B):

1. If you need an electronic product in the future, how likely are you to try this retailer?

2. If you ever purchase a digital camera (tires) again, how likely are you to buy it from this retailer?

3. How likely are you to revisit this retailer for your shopping needs?

**Retailer-specific information focus** (Study 2 and 3B):

1. By giving a price guarantee, ABC Auto-Mart mainly informs consumers that its prices are the lowest in the market.

2. If ABC Auto-Mart is not extremely confident of informing consumers that it charges the lowest prices in the market, it would not offer a price guarantee.

3. I would be primarily attracted to ABC Auto-Mart’s price guarantee because I feel confident that the prices I would pay to this retailer are the lowest in the market.
Retailer-specific protection focus (Study 2 and 3B):

1. By giving a price guarantee, ABC Auto-Mart mainly promises that it will protect consumers from fluctuating market prices by paying them a refund if they found a lower price elsewhere.

2. ABC Auto-Mart may not necessarily have the lowest price in the market, but the retailer will protect consumers financially if they find a lower price.

3. I would be primarily attracted to ABC Auto-Mart’s price guarantee because I feel confident that in case I find a lower price in the market I will be financially protected by the refund.

Trust violation (Study 2 and 3B):

1. I felt that the trust I had placed on ABC Auto-Mart was violated.

2. I felt “let down” by ABC Auto-Mart.

3. I felt that ABC Auto-Mart took advantage of the trust I had placed in their price guarantee.

Opportunistic signaling (Study 4):

1. ABC Auto-Mart offers a disclaimer to attract consumers despite knowing that their prices are not the lowest in the market.

2. ABC Auto-Mart cares more about attracting people to its store than about providing the lowest market prices.

3. ABC Auto-Mart uses its disclaimer as a trick to attract people to the store.
(B) Stimuli for signal focus manipulation (Studies 2 and 4):

Information focus:
Imagine that you have come across an MP3 player priced at $149.99 at a local Best Buy store. Best Buy guarantees that if you find this same model for a lower price (say, $129.99; i.e., a price difference of $20) then Best Buy will refund you 110% of the difference, i.e., $22 (i.e., $20 + 10% of $20). This practice is called Low Price Guarantee and its primary purpose is to inform consumers that of all the retailers carrying the product, the retailer offering the price guarantee is charging the lowest price. At Consumer Reports we interviewed a large sample of consumers. All of them said that whenever they see a price guarantee they infer that the retailer’s prices are the lowest in the market. This inference makes them want to shop at the retailer who offers a Low Price Guarantee.

Protection focus:
Imagine that you have come across an MP3 player priced at $149.99 at a local Best Buy store. Best Buy guarantees that if you find this same model for a lower price (say, $129.99; i.e., a price difference of $20) then Best Buy will refund you 110% of the difference, i.e., $22 (i.e., $20 + 10% of $20). This practice is called Low Price Guarantee and its primary purpose is to protect consumers from fluctuating market prices. At Consumer Reports we interviewed a large sample of consumers. All of them said that whenever they see a price guarantee they feel protected from fluctuation of prices in the market, knowing that even if they find a lower price later, they will not lose money. This sense of protection makes them want to shop at the retailer who offers a Low Price Guarantee.