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The authors demonstrate that choosing one product from a set of competing alternatives can change expectations about the chosen product such that consumers can become optimistic about the product's performance, and this optimism can then fade away. In five experiments, the authors show that this phenomenon of fading optimism in products is robust across different experimental settings and product categories and is moderated by prior attitude toward the product category and ambiguity of the product's performance.

Fading Optimism in Products: Temporal Changes in Expectations About Performance

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Product expectations are predictions about how good a product's performance will be (Boulding et al. 1993; Oliver 1997). They can influence both product choice and satisfaction. A product may be chosen if it is expected to perform well (Oliver 1997, p. 69), which may lead to satisfaction if the performance meets or exceeds expectations (Oliver 1980). This research explores how expectations change after choice but before performance is revealed.

Product performance is frequently revealed during a period after choice. For example, the performance (e.g., fabric softness) of a shirt purchased over the Internet is revealed a few days after choice, after it arrives by mail. Similarly, the performance (e.g., photograph quality) of a disposable camera is not revealed immediately after choice but after the consumer takes pictures and has the film processed. The research we report herein addresses the following question: Before the performance of a chosen product is revealed, can consumers' expectations about product performance change over time (from the prechoice to the postchoice stage), even as product knowledge remains the same? Two streams of literature suggest plausible but conflicting answers. We first resolve this conflict and present a theory about fading optimism in products. We then present three experiments that use disposable cameras to establish the fading-optimism effect and two experiments that use soft drinks to replicate the effect. The soft-drink experiments also examine performance ambiguity and prior attitude as moderators and rule out an alternative explanation.

CONFLICTING PREDICTIONS ABOUT TEMPORAL CHANGES IN EXPECTATIONS

After a consumer chooses a product from a set of competing alternatives, how might his or her expectations about the product change? Research on dissonance reduction suggests that expectations should increase, but research on strategic management suggests that they should decrease. We offer a resolution based on research on fading optimism.

Dissonance Reduction: Expectations Should Increase After Choice

Imagine a consumer who makes an irrevocable choice between two competing products, A and B; both products have some positive aspects and some negative aspects. After choosing Product A, the consumer regrets owning those aspects of A that are inferior to B. According to dissonance theory (Brehm 1956; Festinger 1957), attitude-behavior inconsistency occurs because the consumer's negative attitude toward the inferior aspects of A is inconsistent with his or her favorable behavior toward A. This motivates the consumer to resolve this inconsistency. Because the behavior is irrevocable, the consumer's preference for A increases to bring attitude in line with behavior. Consistent with this line of reasoning, Brehm (1956) demonstrates that desirability of a product is greater after it is chosen than before. Similarly, in the context of horse races (Knox and Inkster 1968) and gumball games (Rosenfeld, Kennedy, and Giacalone 1986), it has been demonstrated that people are more optimistic about the outcome after choosing an option than before. A similar dissonance-based bolstering of expectations has been suggested for products (Oliver 1997, p. 259). According to dissonance research, therefore, expectations should increase after choice because consumers try to reas-

sure themselves that the chosen product will perform well—that is, that they made the right decision. However, research on strategic management suggests the opposite.

Strategic Management: Expectations Should Decrease After Choice

According to self-handicapping theory (Berglas and Jones 1978), people sometimes create impediments to performance (“I will not study for the exam”) to reduce potential disappointment from a bad performance (“I scored low only because I did not study”). In line with this logic, Koppalle and Lehmann (2001) suggest that consumers strategically reduce product expectations in an attempt to reduce potential disappointment from the product.

Koppalle and Lehmann’s (2001) research focus is not on how expectations reduce after choice but on how strategic reduction varies with individual traits. However, the essence of their research is that “expectations are determined, in part, by the desire to enhance future satisfaction” (p. 387). After choosing a product, consumers want to be satisfied with it. In an attempt to enhance satisfaction, they should strategically reduce their expectations. This prediction is in direct conflict with the dissonance theory prediction.

Resolution of the Conflict: Fading Optimism in Products

Our resolution is predicated on the idea that though dissonance effects are known to occur soon after choice, it is not clear whether the effects of strategic reduction will occur soon after choice or some time later. Research on fading optimism helps provide an answer.

Confidence about performance on certain tasks drops as the time of performing the tasks, or the “moment of truth,” draws near (Gilovich, Kerr, and Medvec 1993). Similarly, as time of exam feedback approaches, students’ optimism fades away, and as graduation day draws near, college seniors, but not juniors, show lower optimism with respect to the salaries they will receive after graduation (Shepperd, Ouellette, and Fernandez 1996). This literature leads to our conceptualization about fading optimism in products. We suggest that strategic reduction does not occur soon after choice but rather later, when performance is about to be revealed. In other words, optimism in a choice fades away when performance is imminent. Three experiments using photograph quality of disposable cameras test this core idea.¹

EXPERIMENT 1

This experiment tests the prediction about the temporal sequence of expectations. Specifically, there should be an increase in expectations after choice, followed by a decrease in expectations when performance is about to be revealed.

H₁: Expectations about product performance show an inverted U shape over time such that optimism arises after choice but subsequently fades away. More specifically, (a) postchoice 1 (i.e., when performance is distant) > prechoice expectations, and (b) postchoice 2 (i.e., when performance is imminent) < postchoice 1 expectations.

Overview

Participants were told that this experiment was being conducted on behalf of a company that was trying to determine which of three disposable cameras to launch. All participants were assured that in the end, they would receive one of the three cameras and see its sample photographs. Before participants used the camera, the photographs would give them a sense of its performance.

The information available to form expectations was a brand \times attribute table that was displayed at the top of the page whenever expectations were measured. It compared three cameras—Single-Clickle, Click-n-Throw, and Buy-n-Click—on three dimensions of photograph quality: resolution, color richness, and color accuracy. Participants were told that an independent testing service had rated the photographs on a scale from 0 (“worst”) to 100 (“best”). To ensure that alternatives were competing, each camera was rated high on one dimension but not on the others. The respective ratings for resolution, color richness, and color accuracy were 55, 50, and 95 for Single-Clickle; 55, 85, and 60 for Click-n-Throw; and 90, 50, and 60 for Buy-n-Click. On the basis of these ratings, participants marked expectations multiple times, with filler tasks and time gaps used to clear their memory about prior responses. The purported reason for multiple measurements was that examining the same information sometimes provides additional insights.

To demonstrate that the temporal changes in expectations were not due to some unforeseen correlate of time, we measured expectations over time for both chosen and rejected products. If some extraneous temporal effects were operating, all the products should show the same pattern. However, if the hypothesized effects were operating, the inverted U-shaped pattern should emerge for the chosen product but not for the rejected ones.²

Design

The design was a 3 (time: prechoice, postchoice 1, postchoice 2) \times 2 (focal product: rejected, chosen) mixed design in which time was a within-subjects factor and focal product was a between-subjects factor. The dependent variable was expectations about photograph quality. For example, for Single-Clickle, we asked, “In your opinion, what *overall quality* of photographs will be produced by Single-Clickle?” (1 = “poor quality,” 9 = “excellent quality”). We adapted this measure from prior research on expectations (Boulding et al. 1993; Kopalle and Lehmann 2001).

Procedure

Forty-two undergraduate business students participated in exchange for partial course credit and a free disposable camera. On Day 1, participants marked expectations (i.e., prechoice) for all three cameras on the basis of the ratings provided. Then, as a filler task, they completed items from an unrelated individual difference scale. Next, they chose the camera that they would like to receive on Day 3, knowing that the choice was final. Participants were randomly assigned to either the rejected or the chosen cell. Half of the participants marked expectations (i.e., postchoice 1) for the one camera they chose, and half marked expectations for the two cameras they rejected. They then left for the day. On Day 3, participants were first reminded that at the end of

the study, they would receive the camera they had chosen on Day 1, as well as its sample photographs. They marked expectations (i.e., postchoice 2) for either the chosen or the rejected products, depending on the cell they were in. (Day 1 questionnaires had unique identification numbers, based on which Day 3 questionnaires were customized for each participant.) At the end, each participant was debriefed about the study and given a Kodak disposable camera for participation.

Results

For each participant assigned to the rejected product cell, we averaged expectations of the two rejected products. (Separate analyses yielded identical results.) We conducted a repeated measures analysis of variance (ANOVA) in which expectations was the dependent variable, time (pre-choice, postchoice 1, postchoice 2) was the within-subjects independent variable, and focal product (rejected, chosen) was the between-subjects independent variable. Figure 1 presents the results.

Not surprisingly, expectations were higher for the chosen product than for the rejected products, as indicated by the main effect of focal product ($F(1, 40) = 16.1, p < .001$). More pertinent to H_1 , the multivariate test revealed a main effect of time (Wilks' $\lambda = .80$; $F(2, 39) = 4.9, p < .05$) that was driven by the chosen-product rather than the rejected-product condition, as evidenced by the time \times focal-product interaction (Wilks' $\lambda = .78$; $F(2, 39) = 5.7, p < .01$). Planned contrasts supported the inverted U-shaped prediction for the chosen product; expectations increased from prechoice to postchoice 1 ($M = 6.1$ versus 7.2 ; $F(1, 40) = 17.0, p < .001$) and then decreased from postchoice 1 to postchoice 2 ($M = 7.2$ versus 6.3 ; $F(1, 40) = 13.9, p < .01$). In contrast, the rejected products showed no expectation changes between prechoice and postchoice 1 ($M = 5.1$ versus 5.0 ; $F(1, 40) < 1, p > .90$) or between postchoice 1 and postchoice 2 ($M = 5.0$ versus 5.1 ; $F(1, 40) < 1, p > .80$).

EXPERIMENT 2

Experiment 1 presents an expectations sequence that is consistent with our theory. However, it shows that fading is correlated with the imminence of performance, not that it is caused by it. To provide evidence for the causal mechanism, Experiment 2 tests the effect of performance revelation that is manipulated to be imminent (versus distant). Because H_2 proposes an increase in expectations from pre- to postchoice, it is framed in terms of postchoice optimism. Consistent with H_{1a} (postchoice 1 [distant] $>$ prechoice expectations), we expect optimism to arise in the distant condition, and consistent with H_{1b} (postchoice 2 [imminent] $<$ postchoice 1 [distant] expectations), we expect optimism to be lower in the imminent than in the distant condition.

H_2 : Postchoice optimism arises when the time of performance revelation is distant but fades away when it is imminent. More specifically, (a) $PCO_{Distant} > 0$, and (b) $PCO_{Imminent} < PCO_{Distant}$.

Overview

We changed the brand ratings used in Experiment 1 to exclude the possibility that our results are tied to a specific

ratings pattern. The new ones are 70, 40, and 60 for Single-Clickle; 45, 65, and 60 for Click-n-Throw; and 55, 40, and 75 for Buy-n-Click.

Design

The design was a 2 (time: prechoice, postchoice) \times 2 (performance revelation: distant, imminent) mixed design in which the first factor was within subjects and the second was between subjects. We measured expectations as we did in Experiment 1.

Procedure

Fifty undergraduate business students participated in exchange for partial course credit and a free disposable camera. On Day 1, participants marked expectations (i.e., prechoice) for all three cameras on the basis of the ratings table. On Day 8, they chose the camera that they would receive a month later. Then, they read the performance revelation manipulation. The performance-distant condition read as follows:

At the time you receive the camera, you will also receive some photographs taken using the camera you chose today. For example, if you chose Single-Clickle, you will be given some photographs taken using Single-Clickle. Please note that the camera you receive next month will be new and unused. These photographs would be taken using a similar camera.

The performance-imminent condition read as follows:

After you are done with this survey, you will receive some photographs taken using the camera you chose today. For example, if you chose Single-Clickle, you will be given some photographs taken using Single-Clickle. Please note that the camera you receive next month will be new and unused. These photographs were taken using a similar camera.

Participants then marked their expectations (i.e., postchoice) for the chosen product. Finally, each participant was debriefed and given a Kodak disposable camera for participation.

Results

We conducted a repeated measures ANOVA in which expectations was the dependent variable, time (prechoice, postchoice) was the within-subjects independent variable, and performance revelation (distant, imminent) was the between-subjects independent variable. Consistent with H_2 , there was a time \times performance-revelation interaction (Wilks' $\lambda = .90$; $F(1, 48) = 5.6$, $p < .05$). Planned contrasts revealed that when performance revelation was distant, postchoice optimism emerged such that expectations increased from pre- to postchoice ($M = 5.9$ versus 6.5 ; $F(1, 48) = 5.0$, $p < .05$). However, when performance revelation was imminent, optimism faded away such that there was no increase from pre- to postchoice but rather a non-significant decrease ($M = 6.1$ versus 5.8 ; $F(1, 48) = 1.3$, $p > .25$).

EXPERIMENT 3

Having established the sequence of expectations and the causal mechanism, Experiment 3 tests the underlying process. The process underlying optimism after choice is

that people are focused on concerns about whether they made the right choice, and therefore they try to reassure themselves that they did. The process underlying fading of optimism in the face of imminent performance is that people are focused on concerns about whether the performance will be disappointing, and therefore they try to lower their optimism. If this is true, optimism and its fading should emerge by simply leading people to these processes (i.e., by manipulating focus of concern) without changing the time of performance revelation.

H₃: Postchoice optimism arises when the focus of concern is prior choice but fades away when it is future performance. More specifically, (a) $PCO_{\text{Prior Choice}} > 0$, and (b) $PCO_{\text{Future Performance}} < PCO_{\text{Prior Choice}}$.

Overview and Design

The experimental setting and stimuli were similar to that which we used in Experiment 2. The design used was a 2 (time: prechoice, postchoice) \times 2 (focus of concern: prior choice, future performance) mixed design in which the first factor was within subjects and the second was between subjects. We measured expectations as we did in Experiments 1 and 2.

Procedure

Fifty undergraduate business students participated in exchange for partial course credit and a free disposable camera. On Day 1, participants marked expectations (i.e., prechoice) for all three cameras on the basis of the ratings table. On Day 8, they chose the camera they wanted. Then, they were randomly assigned to a focus-of-concern condition. Consistent with H₃, we designed the manipulations not to induce general orientations toward prior choice versus future performance but to evoke specific concerns regarding the two. The prior-choice condition read as follows:

Now try to think about the choice you made. On the last page, you chose one camera from among three options available. Now that you have already made your final decision, are you having doubts about the camera you chose? In other words, are you concerned that the choice you made might not be the best one? Please write down your thoughts in as much detail as possible.

The future-performance condition read as follows

Now try to think about the sample photographs that you are going to see. In a few minutes, you will know the photograph quality that is actually produced by the camera you have chosen. Are you feeling anxious about how good the photograph quality will be? In other words, are you concerned that the photograph quality might be disappointing? Please write down your thoughts in as much detail as possible.

Participants were given two minutes to write down their thoughts. Then, they marked expectations (i.e., postchoice) for the chosen product. Finally, each participant was debriefed and given a Fuji disposable camera for participation.

Results

We conducted a repeated measures ANOVA in which expectations was the dependent variable, time (prechoice, postchoice) was the within-subjects independent variable, and focus of concern (prior choice, future performance) was the between-subjects independent variable.³

Consistent with H_3 , there was a time \times focus-of-concern interaction (Wilks' $\lambda = .90$; $F(1, 48) = 5.0$, $p < .05$). Planned contrasts revealed that when concerns about prior choice were made salient, postchoice optimism emerged such that expectations increased from pre- to postchoice ($M = 6.1$ versus 6.8 ; $F(1, 48) = 8.9$, $p < .01$). However, when future-performance concerns were made salient, optimism faded away such that there was no increase from pre- to postchoice ($M = 6.4$ versus 6.4 ; $F(1, 48) < 1$, $p > .8$). In other words, when doubts were created about having made the right choice, people reassured themselves and converted that concern into optimism, but when doubts were created about the performance being disappointing, this optimism was absent.

Although Experiments 1–3 find converging support for the proposed theory about fading optimism in products, they raise two concerns. The first concern is that all experiments used disposable cameras. Therefore, it is not clear whether the results regarding fading optimism are somehow unique to the category of disposable cameras or more general. The second and more important concern is that there might be an alternative explanation for the results we observed.⁴

ALTERNATIVE EXPLANATION

Preferences are known to change depending on how they are measured. For example, preferences may differ from choice tasks to ratings tasks (Nowlis and Simonson 1997); from separate evaluations to joint evaluations (Hsee 1996; Hsee et al. 1999); and from choice tasks to judgment tasks, such as matching (Tversky, Sattath, and Slovic 1988). The finding most pertinent to the alternative explanation is that important or prominent dimensions might play a greater role in choice than in judgment (Tversky, Sattath, and Slovic 1988).

To illustrate this explanation, we discuss Experiment 3. At the prechoice stage, participants were in a judgment mode as they marked expectations for each camera based on some combination (e.g., average) of the available ratings of resolution, color richness, and color accuracy. Subsequently, when participants found it difficult to choose between the three cameras, they chose the one that had the highest rating on the dimension they believed to be important, for example, resolution. Resolution, the highly rated dimension, now became more prominent (Tversky, Sattath, and Slovic 1988). Therefore, participants in the prior-choice condition, who were in a choice mind-set, overweighted resolution when they were asked for their expectations about the chosen product. Consequently, they showed optimism (i.e., postchoice $>$ prechoice expectations). Conversely, participants in the future-performance condition were in a judgment mind-set because they were thinking about the performance of the one chosen product rather than a choice between alternatives. Therefore, they weighted the prominent dimension just as they did at the prechoice stage, which led to an absence of optimism. To

address this alternative explanation and the issue of using just one product category in our experiments, we present two additional experiments.

In Experiments 4 and 5, we test whether the results that we found for disposable cameras (in Experiment 3) emerge for soft drinks as well. In addition, we evaluate the alternative explanation in two ways. In Experiment 4, we employ a variable (cognitive load) that should moderate the Experiment 3 results if the alternative explanation holds but that should have no influence if the proposed theory holds. In Experiment 5, we employ two variables (prior attitude and performance ambiguity) that should moderate the Experiment 3 results if the proposed theory holds but that should have no influence if the alternative explanation holds.

EXPERIMENT 4

When people simultaneously engage in several tasks that consume cognitive resources, they are known to be cognitively busy, or under a cognitive load (Gilbert, Pelham, and Krull 1988). If our fading-optimism results are due to differences between judgment and choice, they should be attenuated when cognitive load is high because prior research has shown that judgments involve broader and more elaborate processing than choices (Billings and Scherer 1988; Shiv and Huber 2000). Specifically, increasing cognitive load should reduce the more elaborate processing of judgments and, consequently, reduce differences between judgment-based results and choice-based results. Conversely, if our results are the outcome of the explanation we propose, they should not be affected by cognitive load, because our theory is based not on the extent of cognitive processing but on the cognitive focus of concern. Furthermore, prior research has demonstrated that dissonance effects in a free-choice paradigm are relatively automatic and not affected by cognitive load (Lieberman et al. 2001). Given that our effects are predicated on a dissonance-evoked optimism that fades away because of concerns about an imminent performance, cognitive load should not reduce the effects that we observed previously. Therefore, we present a null hypothesis that is related to the fading-optimism effects (H_3) that we found in Experiment 3.

H_4 : Cognitive load does not influence the fading-optimism effect stated in H_3 .

Overview

In addition to testing H_4 , this experiment also tests the robustness of the fading-optimism effect (i.e., H_3) in a different product category, namely, lemon–lime soft drinks. The ratings table was similar to the one we used in Experiments 2 and 3, except that the names used for soft drinks were Be-Cool, Cool-It, and Chill-Out, and the dimensions were those of taste—refreshingness, flavorfulness, and appropriateness of carbonation. Participants marked expectations thinking that they were going to find out the performance (i.e., the taste of the drink) in a tasting session at the end. To make participants have a stake in the performance, they were told that consuming one full can of the soft drink was a mandatory part of the tasting session. (Because of this, 3 of 80 participants refused to participate in the entire study.)

Design

The design used was a 2 (time: prechoice, postchoice) \times 2 (focus of concern: prior choice, future performance) \times 2 (cognitive load: low, high) mixed design in which the first factor was within subjects and the others were between subjects. The question used for measuring expectations was as follows: "In your opinion, what will be the *overall taste* of Be-Cool?" (1 = "poor taste," 9 = "excellent taste").

Procedure

Seventy-seven undergraduate business students participated in exchange for partial course credit and a free soft drink. On Day 1, participants marked expectations (i.e., pre-choice) for all three soft drinks on the basis of the ratings table. On Day 8, participants were told that they would be participating in the remaining part of the soft-drink study and in a different study on memorizing numbers. They were provided with a brief description about the importance of numbers in consumption situations (e.g., prices, credit card numbers) and then were given 20 seconds to memorize either a two-digit number (31; low cognitive load) or a seven-digit number (6475031; high cognitive load). They were not permitted to write the number anywhere. This manipulation was based on an established procedure of using numbers to induce cognitive load (Roch et al. 2000; Shiv and Fedorikhin 1999). Respondents were told that they would be asked to recall the number ten minutes later and that they would complete the soft-drink study in the meantime. They chose the soft drink that they wanted to consume in the tasting session and then read the focus-of-concern manipulation. The prior-choice condition read as follows:

Now try to think about the choice you made. On the last page, you chose one soft drink for tasting, from among three options available. Now that you have already made your final decision, are you having doubts about the soft drink you chose? In other words, are you concerned that the choice you made might not be the best one? Please write down your thoughts in as much detail as possible.

The future-performance condition read as follows:

Now try to think about the soft drink that you are going to consume. In a few minutes, you will know the taste of the soft drink that you chose. Are you feeling anxious about how good the taste will be? In other words, are you concerned that the taste might be disappointing? Please write down your thoughts in as much detail as possible.

After participants wrote down their thoughts, they marked expectations (i.e., postchoice) for the chosen product. Then, they tried to recall the number they had memorized. As a manipulation check for cognitive load, they were also asked to indicate the extent of mental effort they exerted to keep the number in memory during the previous few minutes (1 = "did not exert mental effort at all," 9 = "exerted a lot of mental effort") and how busy their mind was while trying to keep the number in memory during the previous few minutes (1 = "my mind was not busy at all," 9 = "my mind was extremely busy"). Because the two measures were highly correlated ($r = .82$, $\alpha = .90$), we averaged them to form a measure of reported busyness. Finally,

participants were debriefed, and free cans of Coke, Diet Coke, and Sprite were distributed.

Results

For the memory task, recall was correct for almost all participants—all 39 participants in the low-cognitive-load condition and 36 of the 38 participants in the high-cognitive-load condition. (One error was a mistake of one digit, and another one was a mistake of two digits.) To check whether the manipulation of cognitive load was successful, we conducted a univariate ANOVA in which reported busyness was the dependent variable and cognitive load (low, high) and focus of concern (prior choice, future performance) were the between-subjects independent variables. Indeed, reported busyness was higher for those in the high-cognitive-load than for those in the low-cognitive-load condition ($M = 4.1$ versus 2.9 ; $F(1, 73) = 7.4, p < .01$). All other effects were nonsignificant ($p > .7$).

For the main analysis, we conducted a repeated measures ANOVA in which expectations was the dependent variable, time (prechoice, postchoice) was the within-subjects independent variable, and cognitive load (low, high) and focus of concern (prior choice, future performance) were the between-subjects independent variables.

Consistent with H_3 and the results we observed for disposable cameras, the fading-optimism effect emerged for soft drinks in the form of the time \times focus-of-concern interaction (Wilks' $\lambda = .85$; $F(1, 73) = 13.0, p < .01$). Planned contrasts revealed that when concerns about prior choice were made salient, PCO emerged such that expectations increased from pre- to postchoice ($M = 5.8$ versus 6.4 ; $F(1, 73) = 14.2, p < .001$). However, when future-performance concerns were made salient, optimism faded away such that there was no increase from pre- to postchoice but rather a nonsignificant decrease ($M = 5.9$ versus 5.7 ; $F(1, 73) = 1.7, p > .2$). Although none of the effects of cognitive load were significant (all $ps > .3$), the nonsignificant effect that deserves special mention is the time \times cognitive-load \times focus-of-concern interaction (Wilks' $\lambda = .99$; $F(1, 73) = .42, p > .5$). This was consistent with the null prediction based on our theory (H_4) and inconsistent with the alternative explanation. The interaction was not only nonsignificant but also directionally opposite to that which the alternative explanation predicted; that is, fading optimism was stronger (not weaker) in the high-cognitive-load condition than in the low-cognitive-load condition.

In Experiment 4, we examined a variable that should have had an influence if the alternative explanation were valid. However, it had no effect. We now examine variables that should have a moderating influence if the valid explanation is fading optimism rather than the alternative explanation.

EXPERIMENT 5

The variables we consider are prior attitude toward the product category and ambiguity of product performance. If our results are due to the differential weighting of a prominent dimension (i.e., the alternative explanation), there is no reason for these variables to have any influence. However, if our results are due to the proposed theory (i.e., fading optimism), these variables should act as moderators.

Specifically, because these variables are related to perceptions of performance rather than to the choice decision, they should not affect the optimism that occurs because of concerns about choice (prior-choice condition) but should influence the fading optimism that occurs because of concerns about performance (future-performance condition), as we discuss next.

Prior attitudes are predispositions toward objects. Such preexisting notions can guide interpretation of new information (Petty and Cacioppo 1986) and affect information processing (Russo, Meloy, and Medvec 1998). When people are predisposed with an unfavorable (versus a favorable) attitude toward a product category (e.g., airline travel), it could heighten their anxiety about product performance (e.g., flight comfort). Consider two passengers with different prior attitudes who are about to take the same flight. The passenger whose prior attitude is more unfavorable (i.e., believes that flights are uncomfortable) is more likely to dread the experience of a potentially uncomfortable flight. In an effort to brace against potential discomfort, this passenger is more likely to reduce expectations (e.g., by convincing him- or herself that the flight is going to be horrible). Therefore, for this person with an unfavorable (versus favorable) prior attitude, optimism is going to fade away more strongly. Furthermore, there will be a multiplicative effect due to performance ambiguity.

In the fading-optimism literature (Gilovich, Kerr, and Medvec 1993), the implicit assumption is that performance is clearly revealed at the moment of truth. For clear-cut performance revelations, such as those of grades and salaries (Shepperd, Ouellette, and Fernandez 1996), the threat of performance falling short of expectations is real, and therefore it makes sense to lower expectations. However, product performance is not always as objective and clear-cut. It can vary with the way the consumer interprets it (Ha and Hoch 1989; Hoch and Ha 1986). Ambiguous performance dimensions would be the comfort of a car or the elegance of a fine restaurant (Oliver 1997, p. 89), whereas less ambiguous dimensions would be the car's gas mileage or an entrée's serving size.

For unambiguous performance, because it is difficult to inflate performance perceptions, it makes sense to reduce expectations strategically (Kopalle and Lehmann 2001). For ambiguous performance, however, performance can be interpreted to be high after it is revealed; there is less incentive to lower expectations beforehand. Furthermore, disconfirmation of expectations is "much less likely in ambiguous environments because of the availability of little directly contradictory information" (Hoch and Ha 1986, p. 223). It is not necessary to worry about expectations being explicitly shattered by performance, because performance is not a moment of truth (Gilovich, Kerr, and Medvec 1993) but rather a truth that is subject to multiple interpretations (Hoch and Ha 1986).

Overall, because prior attitude and ambiguity are related to performance, they will have no effect when people focus on prior choice but will moderate the fading of optimism that occurs when people focus on future performance. Because people with an unfavorable prior attitude are more apprehensive about performance than people with a favorable attitude, they will show lower postchoice optimism. Moreover, when prior attitude is unfavorable, postchoice

optimism will be even lower when ambiguity is low than when it is high because a person who is already apprehensive about performance will be concerned even more if the performance revelation is going to be explicit. When prior attitude is favorable, expectations will be less influenced by ambiguity. The consumer will be less worried about a disappointing performance or may not be worried at all. Therefore, the explicitness with which the performance is revealed will matter less or not at all.

H₅: The fading-optimism effect is moderated by the product's performance ambiguity and the consumer's prior attitude toward the product category. More specifically, (a) when the focus of concern is prior choice, postchoice optimism is not influenced by either ambiguity or prior attitude, but (b) when the focus of concern is future performance, postchoice optimism is lower when prior attitude is unfavorable than when it is favorable; moreover, when prior attitude is unfavorable, postchoice optimism is lower when ambiguity is low than when it is high, and when prior attitude is favorable, postchoice optimism is less influenced by ambiguity.

Overview and Design

The experimental setting and stimuli were similar to those we used in Experiment 4. The design was a 2 (time: prechoice, postchoice) × 2 (focus of concern: prior choice, future performance) × 2 (performance ambiguity: low, high) × 2 (prior attitude: unfavorable, favorable) mixed design in which the first factor was within subjects and the others were between subjects. We measured expectations as we did in Experiment 4.

We conceptualized performance ambiguity as the potential for multiple interpretations (Ha and Hoch 1989; Hoch and Ha 1986), and we manipulated it using the opinions of a soft-drink expert.⁵ Participants read excerpts from a purported interview with a food scientist. In the high-ambiguity condition, the scientist claimed that tasting a soft drink is like tasting wine; the taste is not clear-cut but rather is subjective and open to interpretation. Even if the soft drink is objectively bad, a person can still convince him- or herself that it tastes good; in other words, beauty lies in the eyes of the beholder. In the low-ambiguity condition, the scientist stressed that tasting a soft drink is not like tasting wine but rather is more like tasting fruit juice; the taste is clear-cut and unambiguous. If the soft drink is objectively bad, a person can never convince him- or herself that it tastes good.

Prior attitude was the sum of two measures ($r = .75$, $\alpha = .86$). An affect measure asked participants how much they liked lemon–lime soft drinks (1 = “don’t like at all,” 9 = “like a lot”), and a behavior measure asked them how often they consumed the drinks (1 = “not at all,” 9 = “very often”).⁶

Procedure

One hundred sixty-three undergraduate business students participated in exchange for partial course credit and a free soft drink (5 of 168 did not participate because they did not want to consume the soft drink). On Day 1, participants marked their expectations (i.e., prechoice) for all three soft drinks on the basis of the ratings table. On Day 8, they first read the randomly assigned ambiguity manipulation. Then,

as in Experiment 4, they chose the soft drink they wanted to consume and verbally responded to the focus-of-concern manipulation. They then marked their expectations (i.e., postchoice) and reported their prior attitudes. Finally, they were debriefed, and free cans of Coke, Diet Coke, and Sprite were distributed.

Results

We conducted a repeated measures ANOVA in which expectations was the dependent variable; time (prechoice, postchoice) was the within-subjects independent variable; and prior attitude (unfavorable, favorable), ambiguity (low, high), and focus of concern (prior choice, future performance) were the between-subjects independent variables. To ease presentation of results, Figure 2 presents the means for optimism (i.e., postchoice – prechoice expectations).

There was a main effect of time (Wilks' $\lambda = .96$; $F(1, 155) = 6.9, p < .01$) that, consistent with H_3 , was qualified by a time \times focus-of-concern interaction (Wilks' $\lambda = .90$; $F(1, 155) = 16.4, p < .001$), indicating the fading-optimism effect yet again. Specifically, when concerns about prior choice were salient, postchoice optimism emerged such that expectations increased from pre- to postchoice ($M = 5.5$ versus 6.2 ; $F(1, 155) = 21.2, p < .001$). However, when concerns about future performance were salient, optimism faded away such that there was no increase from pre- to postchoice but rather a nonsignificant decrease ($M = 5.9$ versus 5.7 ; $F(1, 155) < 1, p > .40$).

The time \times prior-attitude interaction (Wilks' $\lambda = .97$; $F(1, 155) = 5.0, p < .05$) was qualified by the time \times focus-of-concern \times performance-ambiguity \times prior-attitude interaction (Wilks' $\lambda = .96$; $F(1, 155) = 7.3, p < .01$). Further analysis supported H_5 . In the prior-choice condition, ambiguity and prior attitude had no effect (all $ps > .15$). In the future-performance condition, however, both variables had an influence. Postchoice optimism was higher when prior attitude was favorable than when it was unfavorable ($M = .2$ versus $-.5$; $F(1, 155) = 4.4, p < .05$). When prior attitude was favorable, performance ambiguity did not have any effect ($p > .5$), but when prior attitude was unfavorable, postchoice optimism was lower when ambiguity was low than when it was high ($M = -1.1$ versus $.15$; $F(1, 155) = 6.7, p < .05$). In the unfavorable-prior-attitude, low-ambiguity condition, there was clear pessimism, that is, a significant decline from prechoice to postchoice expectations ($M = -1.1$; $F(1, 155) = 12.3, p < .001$).

Overall, these results replicate the fading-optimism effect (H_3). In addition, they demonstrate the moderating effects of performance ambiguity and prior attitude (H_5), providing conclusive evidence for the proposed process of fading optimism. Furthermore, the alternative explanation of choice versus judgment cannot account for these results.

GENERAL DISCUSSION

A proposed theory about fading optimism in products is supported by five experiments, three dealing with photograph quality and two with soft-drink taste. Experiment 1 demonstrates an inverted U shape over time such that optimism arises after choice and fades away when performance is about to be revealed. Experiment 2 provides evidence for the causal mechanism by showing that optimism fades away when performance is imminent (versus distant). Experiment

3 supports the hypothesized process by showing that optimism fades away when the focus of concern is future performance (versus prior choice). Experiments 4 and 5 replicate the fading-optimism effect, rule out an alternative explanation, and demonstrate that the effect is moderated by prior attitude and performance ambiguity. Postchoice optimism is lowest—in fact, pessimism arises—when prior attitude is unfavorable and ambiguity is low.

Theoretical Contributions

This research presents a dynamic nature to product expectations and resolves a conflict about whether expectations should increase (Festinger 1957) or decrease (Kopalle and Lehmann 2001) after choice. It introduces fading optimism (Gilovich, Kerr, and Medvec 1993) to the realm of products and identifies two moderators of this phenomenon: prior attitude and performance ambiguity.

In addition, this research adds to Kopalle and Lehmann's (2001) research on how strategic management of expectations varies with individual traits by showing that even for the same person, strategic reduction can happen when performance is about to be revealed. With respect to postchoice research within marketing, which has focused mainly on postperformance processes, such as how expectations are either confirmed or disconfirmed by performance (Oliver 1980), this research demonstrates that interesting expectation processes can occur after choice but before performance. Moreover, if expectations change over time, predictions about satisfaction might vary as well.

Finally, this research reinforces the notion that consumers are "adept at adapting to unchangeable circumstances" (Hoch 2002, p. 452). We show that when consumers are concerned about product performance, they lower their expectations because they cannot change the performance itself. Moreover, this effect strengthens when performance is ambiguous, that is, when perceptions of performance cannot be changed because the evidence is not subject to multiple interpretations.

Managerial Implications

Clear implications for after-sales communication emerge. Losciuto and Perloff (1967, p. 289) note that "[m]anufacturers and retailers interested in maintaining satisfied customers might benefit by providing the purchaser with ways of reducing dissonance," such as giving literature that assures "the purchaser that his choice was a wise one." Our research suggests that such reassurance should be given after performance is revealed. If it is given between choice and performance revelation, it will increase expectations and, thus, the potential for disappointment.

Implications also arise for warranties. After consumers buy products, companies frequently offer optional warranties. Because warranties help reduce the risk of a bad performance, consumers should be less likely to buy them soon after purchase (when they are optimistic about performance) and more likely to buy them when performance is imminent. For example, at BestBuy.com, after a customer adds a television to the shopping cart, a warranty (performance service plan) is offered for purchase. Best Buy might have a better chance of selling the warranty if it is offered later, for example, by telephone on the day the television is going to be delivered.

Finally, to design products with performance that meets or exceeds expectations, managers first need to gauge the expectations that consumers will have at the time performance is revealed. By understanding the phenomenon of fading optimism in products and its relationship to prior attitude and performance ambiguity, managers can better predict how expectations might vary from the time a product is being considered for choice to the time its performance is revealed.

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¹All hypotheses assume dissonance conditions, such as presence of competing alternatives, and irrevocability of choice (Brehm 1956). Given half a century of research on dissonance, we do not attempt to provide further evidence for it but only maintain conditions in which it is known to occur. We then study how the evoked optimism subsequently fades away.

²For rejected products, the expected pattern is not an inverted U shape. From prechoice to postchoice 1, expectations should remain the same (i.e., prechoice = postchoice 1) or even decrease (i.e., prechoice > postchoice 1) if participants try to disparage the rejected products (Brehm 1956). From postchoice 1 to postchoice 2, no change should occur (i.e., postchoice 1 = postchoice 2), because the time of performance revelation of the chosen product is irrelevant to expectations of the rejected products.

³We also coded the responses to the focus-of-concern manipulation (i.e., prior choice versus future performance) in terms of how much participants were trying to convince themselves that the product would be good or bad. In the interest of parsimony, we omit this discussion. However, the expressed optimism or pessimism was consistent with the results we report.

⁴We thank an anonymous reviewer for suggestions regarding this alternative explanation.

⁵We pretested this manipulation with 40 participants. The expert's opinions influenced participants' opinions of taste ambiguity of soft drinks in the intended direction.

⁶Prior attitude was dichotomized (Mdn = 5.0) into favorable versus unfavorable. For better exposition of our overall results and planned contrasts, we discuss only the ANOVA results. The results using regression (with prior attitude as continuous variable) were identical.

Figure 1
RESULTS FOR EXPERIMENT 1

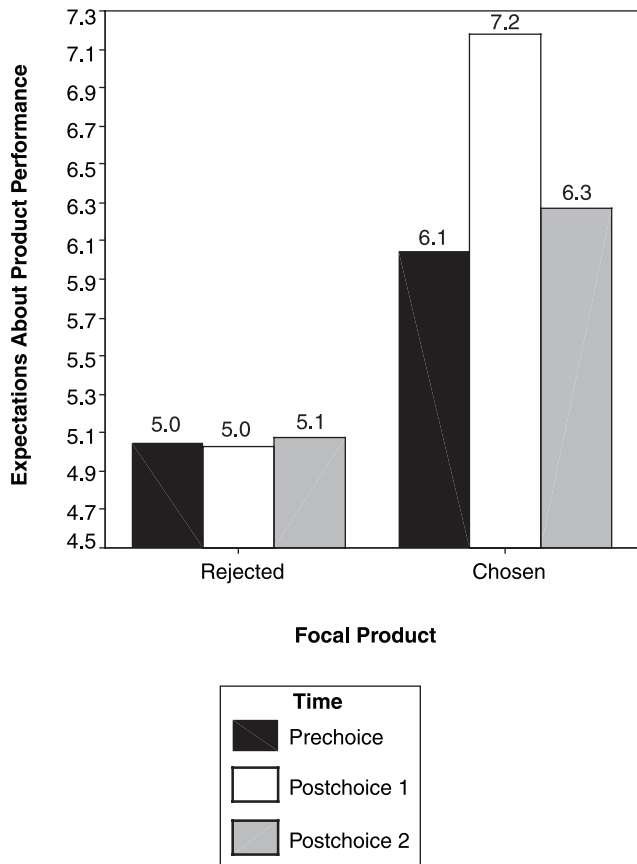
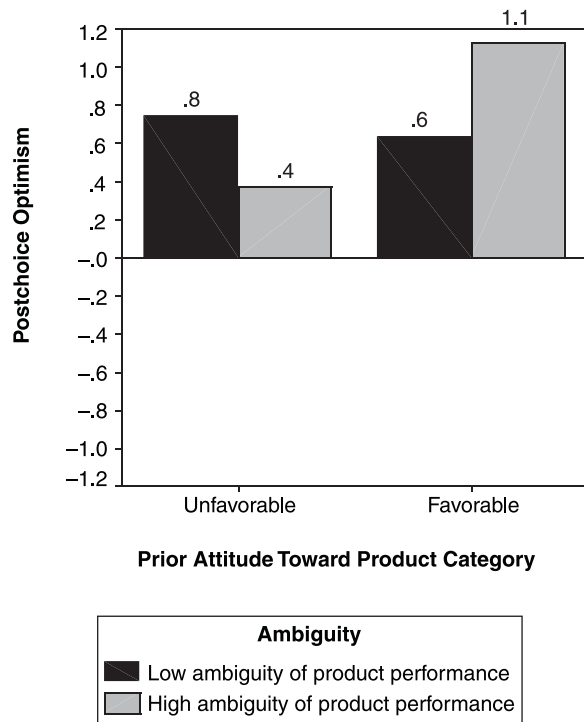


Figure 2
RESULTS FOR EXPERIMENT 5

A: Focus on Prior Choice



B: Focus on Future Performance

