

The Relative Relativity of Material and Experiential Purchases

Travis J. Carter and Thomas Gilovich
Cornell University

When it comes to spending disposable income, experiential purchases tend to make people happier than material purchases (Van Boven & Gilovich, 2003). But why are experiences more satisfying? We propose that the evaluation of experiences tends to be less comparative than that of material possessions, such that potentially invidious comparisons have less impact on satisfaction with experiences than with material possessions. Support for this contention was obtained in 8 studies. We found that participants were less satisfied with their material purchases because they were more likely to ruminate about unchosen options (Study 1); that participants tended to maximize when selecting material goods and satisfice when selecting experiences (Study 2); that participants examined unchosen material purchases more than unchosen experiential purchases (Study 3); and that, relative to experiences, participants' satisfaction with their material possessions was undermined more by comparisons to other available options (Studies 4 and 5A), to the same option at a different price (Studies 5B and 6), and to the purchases of other individuals (Study 5C). Our results suggest that experiential purchase decisions are easier to make and more conducive to well-being.

Keywords: experiential purchases, material purchases, materialism, happiness, consumer behavior

Imagine that you were growing up in the Bay Area of California a couple of generations ago, back when it was truly the Golden State. There would be no shortage of appealing ways to spend your time. A quick drive to the coast for waves, hiking in the nearby mountains, picking cherries or apricots in the orchards that have now given way to Apple and Google headquarters. Baseball, tennis, and outdoor basketball games that could be played with little concern about foul weather.

Would the presence of all these options lead to a *paradox of choice*, whereby a large choice set leads to decision stress and relative dissatisfaction with the option chosen (Schwartz, 2004)? Intuitively, it does not seem that it would. The same kids who might agonize over which candy bar or soda to buy after engaging in one of these activities might decide on the activity itself with little difficulty. Is this a general phenomenon or something unique to that time and place? Do people typically find it easier to choose between experiences than possessions? Are people more inclined to *maximize* when choosing possessions and *satisfice* when choosing experiences? The research reported here addresses these very questions.

There is at least one completely uninteresting reason why the choice between spending a day at the beach, on the ball field, or in

the mountains tends not to be terribly stressful: What isn't chosen one day can be chosen the next. Hiking in the mountains Monday does not preclude playing tennis later in the week. Note that this is also true of candy bars and soda. Having a Three Musketeers one day doesn't prevent one from enjoying a Mounds Bar the next. This is not the case, however, for many other material possessions. For most people, buying a couch, a lawnmower, or an overcoat means they won't be in the market for another one for quite some time.

Even with this difference between experiences and possessions held constant, however, we maintain that choosing between experiences is often easier than choosing between material possessions and that the troublesome effect of having abundant options is less troublesome for experiences than it is for possessions. This may be one reason, in turn, why people tend to derive more enduring satisfaction from their experiential purchases than their material purchases (Van Boven & Gilovich, 2003). We base this contention on the proposition that experiences tend to be "consumed" and evaluated less comparatively than possessions. To be sure, the evaluation of nearly all stimuli is comparative (Gilbert, Giesler, & Morris, 1995), but some evaluations are more comparison-based than others. Just as happy people are less affected by threatening social comparisons than their less cheerful peers (Lyubomirsky & Ross, 1997; see also Lyubomirsky & Ross, 1999), the enjoyment of some purchases is less affected by comparisons with other available options than others. We maintain that the enjoyment one derives from an experiential purchase may be less affected by comparison to other experiences one might have pursued than the enjoyment one derives from a material possession is affected by other possessions one might have acquired. For example, knowing about the features available on other cell phones is likely to influence one's satisfaction with one's own phone more than knowing about the bungalows available on other tropical

Travis J. Carter and Thomas Gilovich, Department of Psychology, Cornell University.

This article is based on portions of Travis J. Carter's doctoral dissertation.

This research was supported by Research Grant SES0542486 from the National Science Foundation. We thank Dennis Regan for comments on an earlier version of this article, and Christina Hung, Catherine Lee, and Sarah Thompson for their help collecting data.

Correspondence concerning this article should be addressed to Travis J. Carter, Department of Psychology, Cornell University, 211 Uris Hall, Ithaca, NY 14853. E-mail: tjc38@cornell.edu or tdg1@cornell.edu

beaches is likely to influence one's satisfaction with one's own tropical bungalow.

Why might the hedonic value derived from experiences tend to be less comparison-based than the hedonic value derived from material possessions? One reason is that the very material nature of possessions makes them easier to compare in the here and now. Someone in the market for a wristwatch can hold two watches side by side, readily compare their aesthetics and features (even try on both simultaneously), and come to a conclusion about which is preferable (Zhang & Markman, 2001; see also Hsee, Loewenstein, Blount, & Bazerman, 1999; Hsee & Zhang, 2004). Comparing two potential experiences is typically more difficult. Imagine, for instance, that you're trying to decide between two vacation packages. You could lay out the pamphlets for the two vacations to compare them, but the comparison will be remote and difficult. To be sure, it is not hard to imagine what it would be like to ski the powder in Vail or ride the waves in Fiji. But it is not possible to actually be in both places at once, and so any such comparisons are mere forecasts, not tangible evaluations.

Also, not only are experiences harder to compare than possessions prospectively, with implications for how the choices are made, they are also harder to compare retrospectively, with implications for how much regret they elicit (Gilovich & Medvec, 1995). As many theorists have noted, the likelihood and intensity of regret depends on the ability to compare the option chosen with options foregone (Kahneman & Miller, 1986; Loomes & Sugden, 1982; Roese, 2005; Sugden, 1985). Because it is often relatively easy to compare a possession one has with a possession one might have had, material purchases may be more susceptible to post-choice regret. No matter which wristwatch one buys, even if it is entirely satisfactory, it can still be compared to one in a store display—encouraging counterfactual thoughts about what it would be like with their positions reversed. After returning from vacation, in contrast, it is not so easy to compare a hypothetical Vail ski run with the waves actually ridden in Fiji.

But there is a third reason why the enjoyment of experiences is often less comparative than the enjoyment of possessions, one that we believe is most important and one that we pursue in the research reported below. We propose that even when comparisons are noted between the experience one had and an experience one might have had, they have less hedonic impact than analogous comparisons between actual and potential possessions. Finding out that there is an even better restaurant (at the same price) than the one at which you dined can be troubling, but not as troubling as finding out that there is an even better MP3 player than the one you just bought (at the same price).

There is some existing research suggesting that this is the case. Solnick and Hemenway (1998; see also Solnick & Hemenway, 2005) found that a majority of respondents would prefer to live in a world in which they made \$50,000 and everyone else made \$25,000 than a world in which they made \$100,000 and everyone else made \$200,000. That is, people were willing to take a \$50,000 pay cut in order to have a larger income than their neighbors. This was not true of vacations. Rather, a majority of Solnick and Hemenway's (1998) respondents stated that they would prefer to live in a world in which they had 4 weeks of vacation and everyone else had 8 weeks, than a world in which they had 2 weeks of vacation and everyone else had 1 week. No matter how one's own

vacation time compared to everyone else's, more vacation was deemed better.

Finally, because our experiences become our memories, they are more truly a part of the self than are possessions (Carter & Gilovich, 2009). They are less easily undone or mentally exchanged for something else. Mentally exchanging an experience involves deleting a part of the self, something that people are understandably reluctant to do (Gilovich, 1991). Experiences therefore tend to be experienced, remembered, and evaluated more on their own terms, and less in terms of how they compare to alternative experiences. Although some people certainly do try to create or project an identity with their possessions (see Tian, Bearden, & Hunter, 2001), we believe that even these people would be much more willing to exchange or upgrade their possessions than their memories.

In the present research we investigate this proposition that potentially troubling comparisons to other alternatives are more troublesome when it comes to material possessions than experiences. We begin by examining, in Study 1, whether people do indeed find the experience of deciding between material purchases to be more troublesome than deciding between experiential purchases. We then investigate, in Study 2, whether people are more inclined to maximize when it comes to material purchases and more inclined to satisfice when it comes to experiential purchases. We then directly examine in Study 3 whether people are more likely to inspect foregone material purchases than foregone experiential purchases and whether this impacts their enjoyment of their own experience or possession accordingly (Study 4). Finally, we explore in Studies 5A, 5B, 5C, and 6 whether potentially troublesome comparisons with other options are less troubling for experiential purchases than material purchases.

Study 1: Decision Difficulty

To determine whether the act of deciding between different material purchases is experienced as more difficult than deciding between different experiential purchases, we asked participants to recall either a significant material or experiential purchase they had made when faced with a large number of options (to ensure that the purchase decision was, in fact, a decision). Participants then answered a number of questions about how difficult the decision was and how they felt about the decision afterwards. We predicted that material purchase decisions would be remembered as more difficult than experiential purchase decisions at the time they were made and that the sense of difficulty would linger and affect participants' current feelings about the decision.

Participants also reported both their initial and current satisfaction with the purchase. This allowed us not only to look at differences in participants' satisfaction with the different types of purchases and how satisfaction changed over time, but also to examine whether any differences in satisfaction are related to the initial difficulty in making the decision and any lingering thoughts about the wisdom of the decision. We predicted that these lingering thoughts of material purchase decisions would be associated with lower feelings of current satisfaction.

Method

Participants and procedure. One hundred forty-two participants completed the survey (92 women, 50 men) while waiting to participate in other studies.

Materials. The survey first asked participants to recall either a material or an experiential purchase that had cost at least \$50 (to ensure that it was of sufficient importance to generate continued thought). They were asked to provide a brief description of the purchase and to indicate how much it cost, how long ago it was made, and how important it was (on a 7-point scale; 1 = *not at all important*, 7 = *very important*).

Because we wanted to know how participants felt about the decision at the time, the survey included three questions assessing the difficulty of the decision at the time it was made: (a) a direct question about the difficulty of the decision, (b) a question about how concerned they had been about whether they had made the right choice, and (c) a question about how torn they had been between the option they chose and the other options. Participants' responses to these questions (each made on a 7-point scale) were combined into a composite score of *past difficulty* with the decision ($\alpha = .72$).

We also wanted to see if participants' thoughts about the decision lingered, and so we included three questions assessing how participants were currently thinking about it. These questions assessed (a) their concern about whether they had made the right choice, (b) their concern about whether another option might have been better, and (c) how often they thought about whether other options might have been better. Participants' responses to these questions (each made on a 7-point scale) were combined into a composite measure of *present concern* ($\alpha = .75$).

To get a sense of how they had approached the purchase decision, participants were asked whether they had thought of the purchase more in absolute terms or more in comparison to other, similar items (also on a 7-point scale).

Finally, participants were asked about both their initial and current satisfaction with the purchase (both on a 7-point scale; 1 = *not at all satisfied*, 7 = *very satisfied*). Because responses to the satisfaction questions might influence responses to the past and present concern measures (and vice versa), we counterbalanced whether the two satisfaction questions came at the beginning or end of the survey.

Results

Manipulation check. To confirm that participants recalled purchases that adequately fit the assigned material or experiential category, three independent raters viewed each of the descriptions provided by participants and rated the degree to which each purchase was a material possession or an experience (1 = *definitely material*, 4 = *does not fit either category*, 7 = *definitely experiential*). Raters saw only the participants' written descriptions and thus were blind to condition and any other potentially biasing information. The ratings were sufficiently reliable ($\alpha = .91$), so they were averaged together. Not only were the two conditions significantly different from each other, $t(140) = 16.53, p < .0001$, both conditions were significantly different from the scale midpoint in the expected direction (both $t_s > 7.49, p_s < .0001$). It appears that our manipulation was successful.¹

Because the amount of time since the purchases were made and the cost of the purchases were skewed, these data were transformed to natural logs and the transformed data were used in all analyses involving these measures. This procedure was followed in subsequent studies as well. There was no difference between conditions in how much the purchases cost ($t < 1$), although participants did report that the experiential purchases were significantly more important, $t(140) = -2.38, p < .05$, and were made longer ago, $t(137) = -2.56, p < .05$.² We control statistically for these differences in the analyses below.

As predicted, participants in the material condition reported that their purchase decisions had been more difficult ($M = 4.18, SD = 1.25$) than did participants in the experiential condition ($M = 3.03, SD = 1.41$), $t(140) = 5.10, p < .001, d = 0.86$. Participants' difficulty in deciding reverberated in their current feelings about the choice, as those in the material condition expressed more present concern about their choice ($M = 2.71, SD = 1.33$) than did those in the experiential condition ($M = 2.07, SD = 1.09$), $t(140) = 3.14, p < .01, d = 0.53$. An analysis of covariance (ANCOVA) revealed that this effect held when controlling for the importance and cost of the purchases, and how long ago the purchase was made, for both the past, $F(1, 133) = 26.73, p < .001$, and present, $F(1, 133) = 10.95, p < .01$, composite measures.

In support of our contention that experiences are evaluated in less comparative terms than material purchases, participants in the experiential condition reported that they thought about their purchase decisions in more absolute and less comparative terms ($M = 4.60, SD = 1.87$) than did those in the material condition ($M = 3.96, SD = 1.70$), $t(140) = 2.14, p < .05, d = 0.36$. An ANCOVA revealed that this finding also held when controlling for the importance, cost, and how long ago the purchase was made, $F(1, 133) = 4.42, p < .05$.

Although there was no difference in reported initial satisfaction between participants in the experiential ($M = 6.06, SD = 1.37$) and material ($M = 6.01, SD = 1.01$) conditions, $t(140) < 1, ns$, participants did report more current satisfaction with their experiential purchases ($M = 6.25, SD = 1.06$) than their material purchases ($M = 5.78, SD = 1.19$), $t(139) = -2.47, p < .05, d = 0.42$.³ That is, although participants were quite happy with both purchases initially, their enjoyment has since diverged. Although neither change was significantly different from zero, satisfaction with experiences tended to increase over time, whereas satisfaction with material purchases tended to decrease over time

¹ It should be noted that the distribution of raters' scores was bimodal, indicating that participants not only understood the instructions but also had little difficulty coming up with purchases that fit either category. Indeed, only 16% ($n = 23$) of the purchases were rated as being somewhat ambiguous, receiving an average rating of greater than or equal to 3.0 and less than or equal to 5.0. If, instead of analyzing the data by assigned condition, we use these ratings to create three categories (experiential, material, and ambiguous), the results mirror those using the assigned conditions for the material and experiential categories, with the ambiguous category falling in between.

² Three participants' reports of the amount of time since they made their purchase were not quantifiable (e.g., "a long time ago"), hence the slightly lower degrees of freedom for those two measures.

³ One participant did not respond to the current satisfaction question, hence the lower degrees of freedom for this analysis.

(see Figure 1).⁴ A repeated-measures ANOVA confirms this, yielding an interaction that approached significance between time and experimental condition, $F(1, 139) = 3.53, p = .06$.

Mediational analysis. To examine whether participants found their material purchase decisions currently less satisfying than their experiential decisions because thoughts of better options continued to linger more for the material purchases, we conducted a mediational analysis following the procedures of Baron and Kenny (1986). Recalling a material purchase rather than an experiential purchase was associated both with significantly decreased feelings of current satisfaction ($\beta = -.41, t = -2.47, p < .05$) and with increased present concern about how the purchase compares with other options ($\beta = .51, t = 3.14, p < .01$). The effect of the mediator (present concern) on current satisfaction remained significant when controlling for material/experiential condition ($\beta = -.44, t = -5.71, p < .001$), but the effect of material/experiential condition dropped to nonsignificance ($\beta = -.18, t = -1.21, p > .20$; Sobel test: $Z = -2.75, p < .01$). Put more simply, greater present concern about how their material purchase compared to other alternatives led directly to reduced current satisfaction with the purchase.

Discussion

These findings indicate that material purchase decisions are more difficult than experiential purchase decisions at the time they are made and that concern about those decisions lingers into the present. Material purchases were reported to be currently less satisfying, and this difference was mediated by participants' current concern about the decision and the options foregone. Participants in Study 1 also reported being prone to thinking of their material purchases in more comparative terms and to thinking of their experiential purchases more on their own merits. The greater difficulty people experience when deciding between material purchases, and the tendency to consider potential material purchases in comparative terms, suggests that perhaps people may be inclined to use something of a maximizing strategy (Schwartz, 2004; Schwartz et al., 2002) when choosing material possessions. And the relative ease of deciding between experiential purchases sug-

gests that perhaps people are relatively more inclined to satisfice when it comes to experiential purchases. Study 2 was designed to examine this possibility.

Study 2: Maximizing and Satisficing

Maximizing refers to a decision strategy whereby all possible options are compared and what is considered the best possible alternative is selected. Although typically effective in terms of obtaining the best outcome, the strategy is time intensive, and the tendency to use it is associated with negative psychological consequences (Schwartz et al., 2002) and, in some circumstances, with less satisfaction with objectively superior outcomes (Iyengar, Wells, & Schwartz, 2006). Indeed, the mere act of contemplating other options appears to make the foregone options more attractive (Carmon, Wertenbroch, & Zeelenberg, 2003), which can increase regret and disappointment. *Satisficing* refers to a decision strategy whereby a minimum standard for overall quality is set and the first option that meets that standard is selected (Simon, 1955). Although satisficing saves the decision-maker from an exhaustive (and often exhausting) search and guarantees that the chosen option will meet the minimum criteria, it leaves open the possibility that other options would have been better.⁵

If, as we propose, people are less inclined to compare different experiential purchases than different material purchases, they should be less likely to use the maximizing strategy when making experiential purchase decisions, as the strategy relies on extensive comparisons. Rather, people may be more likely to opt for the simpler satisficing strategy when making experiential purchase decisions, perhaps obtaining a worse outcome, but feeling better about it (Iyengar et al., 2006). That is, given that people tend to engage in more comparisons for material than experiential goods, there is a greater "fit" between the maximizing strategy for material purchase decisions and between the satisficing strategy and experiential purchase decisions. We therefore predicted that when asked to recall a material and an experiential purchase, participants would report that they had tended to maximize when making their material purchase and to satisfice when making their experiential purchase.

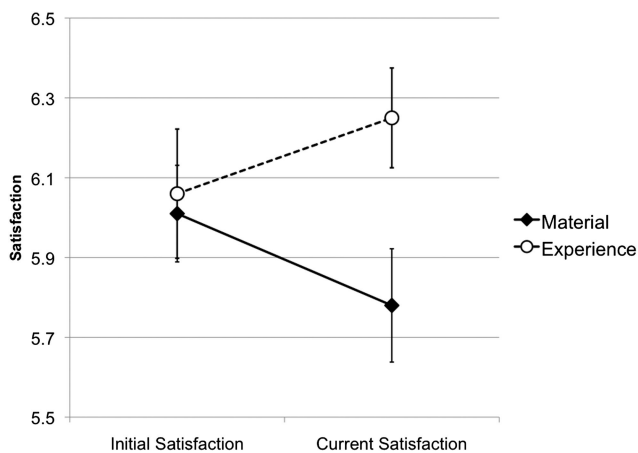


Figure 1. Initial and current satisfaction with earlier material and experiential purchases (Study 1). Error bars indicate the standard error of the mean.

⁴ The placement of the satisfaction questions did not influence responses to any of the other questions, nor did it influence responses to the initial satisfaction questions. However, there was a significant interaction between condition and placement for responses to the current satisfaction questions, $F(1, 137) = 5.29, p < .05$. That is, the reported main effect of condition on current satisfaction was evident when participants answered the satisfaction questions before the difficulty questions, $t(72) = 3.21, p < .01$, but not after, $t(65) < 1, ns$. We suspect that the act of assessing and reporting their difficulty in making the material decisions induced in participants a feeling of cognitive dissonance, which they resolved by reporting higher current satisfaction (Brehm, 1956).

⁵ Although the maximizing–satisficing distinction is often described as an individual difference variable (Schwartz et al., 2002), it is also assumed that people may be maximizers in some domains and satisficers in others (Schwartz, 2004). Our focus is on whether people are more likely to satisfice when it comes to experiences and more likely to maximize when it comes to possessions, over and above any general predisposition to maximize or satisfice.

Method

Participants and procedure. Thirty participants were recruited at various points around campus to complete the survey.

Materials. To examine how people approach decisions about material and experiential purchases, we asked participants to recall both a material and an experiential purchase they had made when faced with a large array of options (counterbalancing the order of recall). Participants provided a brief label describing each purchase and indicated its cost. The two decision-making strategies (maximizing and satisficing) were then briefly described (order also counterbalanced), and participants were asked to indicate for which purchase they tended to use the maximizing strategy and for which purchase they tended to use the satisficing strategy on two 9-point scales (1 = *experience*, 9 = *material*; counterbalanced). They also indicated which strategy they tended to use most often, regardless of the type of purchase (also on a 9-point scale, anchored by *maximizing* and *satisficing*).

Results

There were no effects of the order in which participants were asked to recall their experiential and material purchases, or of the order in which the maximizing and satisficing strategies were described (both $t_s < 1$). There was also no difference in the average cost of participants' material and experiential purchases, paired $t(26) < 1$.⁶ Finally, participants did not report an overall tendency to maximize or satisfice their purchasing decisions, with the mean rating of 4.97 not significantly different from the midpoint of the scale, one-sample $t(29) < 1$.

When asked about satisficing, however, participants reported that they were more likely to use such a strategy for choosing an experience than for choosing a possession ($M = 3.97$, $SD = 2.50$, with higher numbers indicating greater use of the strategy for material purchases), one-sample t test against the scale midpoint, $t(29) = -2.27$, $p < .05$. In contrast, when asked about maximizing, participants reported that they were marginally more likely to use such a strategy when choosing a possession than when choosing an experience ($M = 5.83$, $SD = 2.55$, with higher numbers indicating greater use of the strategy for material purchases), one-sample t test against the scale midpoint, $t(29) = 1.79$, $p < .10$. Combining participants' responses to these two questions in a single analysis, we found that participants thought that maximizing was relatively more appropriate for choosing possessions and satisficing was relatively more appropriate for choosing experiences, paired $t(29) = 2.15$, $p < .05$, $d = 0.75$. Controlling for the cost of participants' experiential and material purchases did not affect this result, $t(24) = 2.22$, $p < .05$.

Discussion

The results of this study reinforce those obtained in Study 1. When asked specifically about maximizing, participants said they were more likely to use it for selecting material possessions than for selecting experiences. When asked about satisficing, participants said precisely the opposite. These findings coincide with the greater difficulty participants in Study 1 reported with making material purchases—and the greater enduring concern they reported about whether their material purchases were the right ones.

We contend that both of these findings result in part from the tendency for material purchases to be evaluated in more comparative terms than experiential purchases. We examine that contention directly in Study 3.

Study 3: Examining Foregone Material and Experiential Options

If, as we maintain, material purchases tend to be more comparative than experiential purchases, this should be apparent in people's information search tendencies. That is, after making their decision, people should continue to examine unchosen alternative material purchases more than unchosen alternative experiential purchases. This should be especially true for those unchosen purchases which most readily invite such comparisons, namely those most similar to the actual purchase (e.g., other televisions, if one has purchased a television). To investigate this hypothesis, we exposed participants to a large amount of information about a set of possible material purchases (electronic gadgets) or possible experiential purchases (vacations), and then, after a particular purchase was specified, we examined how often they went back to examine details of the unselected possibilities.

Method

Participants. Sixty participants completed the study in exchange for extra credit in psychology or human development courses.

Materials. We constructed two different choice sets, one composed of 12 material possessions (electronics) and the other of 12 experiences (vacations) to serve as the between-subjects manipulation of purchase type. Each choice set, in turn, consisted of three subcategories of four options each. For the electronics choice set, the subcategories were digital cameras, surround-sound systems, and flat-screen televisions. For the vacations, the subcategories were beach vacations, city vacations, and ski vacations. Each option was described by two qualitative features uniquely applicable to that particular option and by two quantitative details. For example, one of the qualitative features of one of the digital cameras was "in-camera image stabilization and anti-dust vibration systems," and one of the qualitative features of one of the beach vacations was "short walk to bars, restaurants, and other nightlife." The quantitative details were the cost of the option and a quality/desirability rating—from Consumer Reports for the gadgets and from TripAdvisor.com for the vacations. The prices (ranging from \$799–\$1,899) and the ratings (ranging from 2.63–4.94) were perfectly correlated to reinforce the impression that the prices and ratings were valid. The specific numbers for the cost and ratings were identical between conditions and were assigned to a given purchase according to two different random pairings. For example, in one version, both a Canon digital camera and a vacation to Maui were priced at \$999 and given a rating (from Consumer Reports and TripAdvisor.com, respectively) of 3.05. Thus, any difference between conditions in participants' perusal of

⁶ Three participants did not report a quantifiable cost of their material or experiential purchase. Their responses were included in all analyses except those involving cost, hence the lowered degrees of freedom for those analyses.

the different options cannot be attributed to any differences in these quantitative elements of the information associated with the material and experiential items. Participants were randomly assigned to see either the material (electronic gadgets) or the experiential (vacations) choice set.

Procedure. Participants were brought to the lab to participate in a study of how people evaluate decisions made from a large number of options. They were told that they were going to see information about a number of different purchase options and that they should try to get inside the head of someone who was trying to choose the best one. They were first passively exposed to all of the information about every option in the choice set (consisting of a picture and label, plus the four details) for 5 s each. They were then shown one of the options again (randomly selected from the set of options) and told to imagine that a hypothetical person had chosen that option from the entire array of options. Each of the 24 options was specified as the target option (i.e., the selected option) for at least two participants, and no purchase was specified more than four times. Participants were then asked to try to “get into the head” of a person making this purchase and imagine that they themselves had made this choice from the available options.

They were then given the chance to explore the options more actively by clicking on an image of any of the options to reexamine the information about it. After participants had finished exploring the options, they completed several questionnaires from an unrelated study to serve as a distractor. Participants then filled out a questionnaire assessing how good they thought the decision to choose the hypothetical purchase was; whether they thought the hypothetical purchase was the best option available; how much the quality of the other items influenced their evaluation; and whether they tended to evaluate the different options relative to each other, or more absolutely, on their own merits.

We predicted that when comparisons could easily be made, participants in the material condition would be more likely to make them than participants in the experiential condition. Specifically, we predicted that participants would tend to compare the selected material purchases more with the alternatives in the same subcategory (television with television, sound system with sound system) than they would for the experiential purchases. We had no firm prediction as to whether this effect would carry over to the unchosen items outside the chosen subcategory, since those comparisons are difficult for material possessions and experiences alike.

Results

Overall, there was no difference between conditions in the total amount of time participants spent exploring the options ($t < 1$), indicating that participants in the two conditions found the task equally interesting and took it equally seriously. What participants in the material and experiential conditions spent their time looking at, however, was quite different and entirely consistent with our hypothesis. Figure 2 presents the amount of time participants spent examining the target purchase itself, foregone items from the same category (e.g., other surround-sound systems if the target purchase was a surround-sound system), and foregone items from other categories (e.g., flat-panel televisions and digital cameras if the target purchase was a surround-sound system). As a quick inspection of Figure 2 makes clear, participants in the material purchase condition spent more time examining foregone items from the

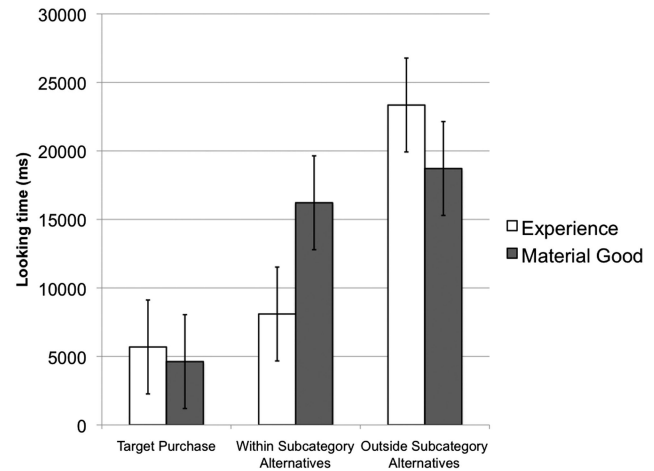


Figure 2. The amount of exploration time spent looking at the chosen purchase, foregone options within the same subcategory as the purchase, and foregone options in other subcategories (Study 3). Error bars indicate the standard error of the mean.

same category than did participants in the experiential purchase condition. To examine the reliability of this pattern, we conducted a 2×3 mixed between/within ANOVA on the raw amount of time participants spent examining items in the three categories. This analysis yielded the predicted significant interaction, $F(2, 116) = 3.69, p < .05$. Examining the source of this interaction more closely, there was a significant difference between the material and experiential conditions in the amount of time participants spent looking at other items from the same category, $t(116) = 2.37, p < .02$, but no significant difference in the amount of time they spent examining the items from other categories, $t(116) = 1.35, p > .15$, or the purchase itself ($t < 1$).

Decision quality. Participants' responses to the two questions about the quality of the decision (how good the hypothetical decision was and whether the target item was the best option available) correlated substantially ($r = .71, p < .001$), and so we averaged them to form an index of decision quality. Although participants in the material and experiential conditions did not differ overall in their assessments of the wisdom of the hypothetical decision ($M_{\text{material}} = 4.28, SD_{\text{material}} = 1.23; M_{\text{experiential}} = 4.50, SD_{\text{experiential}} = 1.22; t < 1$), experimental condition did interact with whether participants said they considered the target purchase largely on its own merits or mainly in relation to the other items, $\beta = -.59, t(56) = -2.32, p < .03$. Examining this interaction more specifically using the Aiken and West (1991) procedure, we find that when participants said they evaluated the items largely in relative terms (1 *SD* above the mean), those in the material condition rated the decision less favorably than did those in the experiential condition, $\beta = -.77, t(56) = -2.15, p < .05$. When participants said they evaluated the items largely on their own merits (1 *SD* below the mean), there was no significant difference between conditions ($p > .25$). Thus, a focus on comparing the target purchase to the other items was detrimental to how participants evaluated the chosen material purchase.

Participants in the material ($M = 5.22, SD = 1.10$) and experiential ($M = 5.50, SD = 1.17$) conditions did not differ in their

ratings of how much they thought the other items had influenced their evaluation of the target purchase ($t < 1$). This suggests that participants in the material condition, at least those who reported considering the options in more relative terms, were unaware that the mere act of looking at the unchosen options had a negative impact on their evaluation. In the studies reported below, we explore what happens when participants are made explicitly aware of potentially troublesome comparative information.

Discussion

When given the opportunity to investigate different options, participants were much more likely to examine alternatives they might easily have chosen when it came to material goods than when it came to experiences. Participants spent more time examining unchosen material options than unchosen experiential options of the same general type—alternative televisions when a television had been selected, or alternative sound systems when a sound system had been selected. This fits with the findings of Study 1, in which participants reported being haunted by unchosen material options from the past, which diminished their satisfaction with what they had purchased.

It is important to note, furthermore, that participants in this study were not explicitly asked to make any comparisons, indicating that the comparisons were made spontaneously. Furthermore, although it may often be easier in everyday life to compare tangible material objects than anticipated or recalled experiences, we found differences in comparative examination of material goods and experiences even when such comparisons were equally available to participants in the two conditions. Nevertheless, we suspect that when faced, say, with myriad flat-screen televisions in a big-box electronics store, the opportunity for side-by-side comparisons of the available options—pixels versus pixels, square inches versus square inches—will compel even more comparison than that observed here. Some of this comparative assessment undoubtedly goes on when one is confronted with vacation brochures in a travel agent's office, but the comparisons tend to be less certain (the powder in Utah or Colorado, the waves in Baja or Fiji) and hence less impactful.

Having established that the evaluation of material goods tends to be more comparative than the evaluation of experiences, we next sought to examine the consequences of this difference in comparative assessment. Given that people seem to be more concerned about alternative material goods than alternative experiences, what impact might information about other possibilities have on their satisfaction with the material goods and experiences with which they end up? Do comparisons with other options prove more troublesome for material purchases than experiential purchases? We examine this question in the following studies.

Study 4: Context Matters, Sometimes

Morewedge and colleagues (Morewedge, Gilbert, Kassam, Myrseth, & Wilson, 2009) demonstrated that although people predict that how much they would enjoy eating a bag of potato chips would be influenced by the presence of better (e.g., chocolate) or worse (e.g., sardines) food items, the actual experience of eating the chips is just as enjoyable no matter what the context (for

a discussion of the *inherent evaluability* of consumption experiences, see Hsee, Yang, Li, & Shen, 2009). That is, the comparisons people think they might make do not, in fact, have the predicted hedonic impact. Would this be true of material goods as well? We conducted this study to find out.

We were not interested in people's forecasts, so we replicated only the "actual" half of the design of the Morewedge et al. (2009) study, adding a set of conditions in which participants received a material possession (a pen) instead of an experience (a bag of chips). Ostensibly as part of a product evaluation study, participants were given a prize (either a bag of chips to eat or a pen to keep) in the context of much better prizes, much worse prizes, or without any context (baseline condition). Thus, the design of the experiment was a 2 (item type: experience vs. possession) \times 3 (context: superior, inferior, control) factorial. We predicted that the comparison items would not influence participants' ratings of the experiential good but would influence their ratings of the material good.

Pilot Testing

We selected the target material and experiential prizes, a Pilot G2 Superfine pen and a 1-oz. bag of original flavor Frito-Lay Sun Chips, respectively, on the basis of informal pilot testing that suggested they were roughly equally desirable. To identify other items that were superior and inferior to the target prizes and would serve as the surrounding context, 21 Cornell University students were asked to rate 20 different material and experiential products on a 7-point scale (1 = *very negative*, 7 = *very positive*). An additional 20 participants rated the same 20 items plus three additional items using the same procedure. Each of the products was present on a table in front of them, and participants were encouraged to examine each one before making their ratings. On the basis of these ratings, we selected three material items that were rated significantly more positively than the Pilot pen ($M = 3.66$, $SD = 1.54$): a Cornell University espresso mug ($M = 4.75$, $SD = 1.43$), a leather-bound Cornell University notebook ($M = 5.68$, $SD = 1.56$), and a 1GB USB flash drive ($M = 6.10$, $SD = 1.14$; all paired t s > 3 , p s $< .001$). We likewise selected three material items that were rated significantly less positively than the Pilot pen: an unsharpened wooden pencil ($M = 1.76$, $SD = 0.92$), a small bag of rubber bands ($M = 2.02$, $SD = 1.19$), and an eraser ($M = 2.22$, $SD = 1.11$; all paired t s < -6 , p s $< .001$).

For experiences, we selected three items that were rated significantly more positively than the Sun Chips ($M = 3.02$, $SD = 1.37$): a Lindt Truffle chocolate bar ($M = 5.05$, $SD = 1.19$), a Dove chocolate bar ($M = 4.88$, $SD = 1.31$), and a Cadbury chocolate bar ($M = 4.90$, $SD = 1.52$; all t s > 6 , all p s $< .001$). We also selected three items that were rated significantly less positively than the Sun Chips: a single serving of Spam ($M = 1.95$, $SD = 1.07$), a can of sardines ($M = 1.71$, $SD = 1.01$), and an 8-oz. bottle of clam juice ($M = 1.46$, $SD = 0.98$; all t s < 4 , all p s $< .001$).

Although the pilot participants rated the Sun Chips significantly less positively than the Pilot pen, $t(40) = 2.50$, $p < .05$, we believe that this difference was a result of the influence of the other items. The context-free control condition of the experiment proper should allow us to test this possibility.

Method

Participants. One hundred twenty-two participants (73 women, 49 men) completed the experiment in exchange for course credit or a small cash payment. We excluded four participants for whom the manipulation was not successful (they indicated either that the nearby items in the superior context were worse than the target item, or that the nearby items in the inferior context were better than the target item). One additional participant was excluded because the pen leaked on his hand. This left a total of 117 participants in the study.

Procedure. Participants in the superior and inferior context conditions were seated at a laboratory table with four prizes laid out on top, along with a sign stating “Prizes for Experiment.” In addition to the target material (pen) or experiential (Sun Chips) prize, participants in the inferior context condition could see the three prizes that had been rated as inferior to the target prize (e.g., clam juice, rubber bands), and participants in the superior context condition could see the three prizes that had been rated as superior to the target prize (e.g., Lindt truffle bar, leather folder).

Participants were told that they would be given one of the products and that they would be asked to try it out and rate how much they liked it. The experimenter then casually consulted her clipboard (ostensibly to determine which of the four prizes the participant would receive) before announcing that the participant would be given the target material or experiential prize. Participants were then left alone for 2 min to eat the chips or try out the pen on some scrap paper while “verbalizing their thoughts and feelings.” After 2 min, participants were given a rating form, which asked them to rate how much they liked the product by placing a mark on a 150-mm analog scale, anchored at *not at all* and *very much*. There was also a box on the form where they were asked to explain this rating. Aside from the absence of any other prizes, the procedure was identical for participants in the control condition.

After participants made their ratings, they were led from the lab room and asked what they thought the experiment was about and whether they had found anything suspicious about the procedure. Participants in the superior and inferior context conditions were also asked if they had noticed the other prizes; whether they thought the other prizes were better than, worse than, or the same as the prize they were given; and, finally, whether they thought the other prizes had influenced their ratings. Participants were then debriefed, thanked, and dismissed.

Results and Discussion

Manipulation check. We looked at the responses of participants in the superior and inferior context conditions during debriefing to confirm that the other prizes were, in fact, considered better or worse than the target prize. Although participants were allowed to indicate that the target prize did not differ from the context prizes, 83.33% of the participants in the superior context condition indicated that the other prizes were better than the target prize and 74.36% of the participants in the inferior context condition indicated that the other prizes were worse than the target prize, $\chi^2(N = 75) = 82.68, p < .001$.

The ratings of participants in the control condition confirmed that, devoid of context, the pen and Sun Chips were viewed similarly ($t < 1, ns$).

Ratings. We predicted that the material item (the pen) would be rated less favorably in the context of the superior material items than in the context of the inferior material items. We predicted no such difference in the ratings of the experiential item (the Sun Chips), which we predicted would be rated the same as the items (material or experiential) in the two control conditions. Because four of the six conditions were not expected to differ from one another, the conventional 2×3 ANOVA does not offer the most appropriate test of the hypothesis. Instead, we constructed a linear contrast with contrast weights of -1 for the superior material context, $+1$ for the inferior material context, and 0 for all other groups. As predicted, this contrast was significant, $F(1, 111) = 4.05, p < .05$. Importantly, the contrast for the residual was not significant, indicating that our planned contrast captures nearly all of the between-condition variability, $F(4, 111) = 2.30, p > .05$.

Post hoc t tests revealed that, as predicted, the Sun Chips were rated equally in the superior ($M = 104.53, SD = 31.15$), control ($M = 107.28, SD = 30.54$), and inferior contexts ($M = 109.73, SD = 26.09$; both $t_s < 1$). However, also as predicted, the pen was rated less favorably in the superior context ($M = 78.53, SD = 35.82$) than it was in both the control, no-comparison context ($M = 103.64, SD = 23.28$), $t(111) = 2.64, p < .01$, and in the inferior context ($M = 98.40, SD = 36.87$), $t(111) = 2.01, p < .05$. Counter to our predictions, the pen was not rated more favorably in the inferior material context than it was in the control, no-comparison context, $t(111) < 1$. A closer look at the manipulation check suggests why. Although the pilot subjects had rated the pen significantly more highly than the three inferior items, more than half of the actual participants in the experiment proper (52.63%) rated the inferior material items the same as the target item. (Note that this was not the case in the experiential condition, in which 100% of the participants rated the inferior comparison items less favorably than the target item.) This suggests that our attempt to create an inferior comparative context in the material condition was not as successful as our effort to create a superior context. Alternatively, it is also possible, of course, that downward material comparisons do not enhance evaluations to the same degree that upward comparisons diminish them. Nevertheless, taken as a whole, the results of this study support our thesis that salient comparisons have a greater impact on people’s satisfaction with their material goods than with their experiential goods.

Studies 5A, 5B, 5C, and 6: Invidious Counterfactual and Social Comparisons

It sometimes happens that after a choice has been made, new options become available—options that are clearly superior to what one had chosen earlier and regarded as the best choice from the existing set of options. How disturbing does knowledge of these new options tend to be? More specifically, is it more disturbing to learn about newer and better options after having made a material purchase than after having made an experiential purchase? In Study 5A, we asked participants how they would react when, after making a material or experiential purchase, they learned that a better alternative to what they had chosen was now available. In Study 5B, we asked how they would react upon learning that the material or experiential choice they made was now available at a better price. In Study 5C, we asked participants how they would react upon learning that a rival made a better

material or experiential purchase. And in Study 6, we replicated Study 5B, this time using the exact same item in the two conditions but describing it as either a material or experiential good. We predicted that because material purchases tend to be evaluated more comparatively than experiential purchases, each of these different types of potentially invidious comparisons would be more troubling to participants when it came to material purchases.

Study 5A: New Options Available

Method

Participants and procedure. One hundred sixty-four participants (124 women, 39 men, 1 unspecified) completed the survey either while waiting for other experiments or as filler questionnaires in unrelated experiments.

Materials. The questionnaire asked participants to imagine that they had recently made a purchase from a large array of options, that they had chosen the best option from the array, and that they were happy with their purchase. Then, by chance, they discovered that in the time since they made the purchase, new options had become available—and that some of these options were clearly superior to those of the item they chose.

To make this scenario concrete and to cover an array of purchases and prices, participants were asked to imagine it in the context of one of four specific material purchases or one of four specific experiential purchases. The four material purchases were a wristwatch, a laptop computer, an MP3 player, and a pair of jeans. The four experiential purchases were a meal at an upscale restaurant, a movie ticket, a show in New York City, and an island vacation package.⁷

Participants read one scenario each and then rated how disturbed they would be by the knowledge that better options were now available and how much their satisfaction with their purchase would be diminished by that knowledge. Finally, to assess whether participants attached the same average level of importance to the material and experiential purchases, participants rated how much they cared about the type of purchase they had been asked to imagine. Participants responded to all three questions on 7-point scales.

Results

Not surprisingly, participants reported caring more about some purchases than others, with a high mean rating of 5.52 (laptop computer) and a low mean rating of 4.18 (wristwatch) for the material purchases, and a high mean rating of 5.57 (vacation package) and a low mean rating of 4.05 (movie ticket) for the experiential purchases. Collapsing across the different types of material and experiential purchases, however, there was no difference in how much participants cared about the two different categories of purchase ($t < 1$). Thus, any difference in how troubled participants indicated they would be by finding out about the availability of other, superior material and experiential options cannot be attributed to any difference in the importance assigned to the particular material and experiential purchases they were asked to consider.

As predicted, participants who were asked about material purchases reported that knowledge of the availability of new options

would be significantly more disturbing to them ($M = 3.98$, $SD = 1.59$) than did participants who were asked about experiential purchases ($M = 3.29$, $SD = 1.78$), $t(162) = 2.61$, $p < .01$, $d = 0.41$. Participants who were asked about material purchases also reported that learning about the availability of additional options would diminish their satisfaction with their purchase ($M = 3.82$, $SD = 1.28$) more than did participants who were asked about experiential purchases ($M = 3.39$, $SD = 1.46$), $t(162) = 2.01$, $p < .05$, $d = 0.32$. On both measures, an ANCOVA indicated that the difference between the material and experiential conditions remained significant when the extent to which participants cared about the purchase was controlled: $F(1, 161) = 7.79$, $p < .01$, for how disturbed participants would be, and $F(1, 161) = 4.35$, $p < .05$, for how much it would diminish their satisfaction.

The results quite clearly show that knowing that one could have had a better product is more disturbing when it is a material product rather than an experiential product. This supports our contention that comparisons loom larger in evaluations of material possessions than in evaluations of experiences. What about other types of comparisons? Do people also find it more upsetting to learn that others received the same material possession for a better price than to learn that others received the same experience for a better price? Study 5B was designed to find out.

Study 5B: Acquired for Less

Method

Participants and procedure. Sixty-two participants (47 women, 15 men) completed the survey either while waiting to complete other experiments or as filler questionnaires in unrelated experimental sessions.

Materials. The scenarios used in this study were identical to those in Study 5A, except that rather than stating that new options had become available, the scenarios asked participants to imagine that they had discovered that since the time they had made their purchase, its price had been lowered. We predicted that because of the more comparative nature of the satisfaction derived from material goods, participants would report being more disturbed by the knowledge that their material purchase was now available at a lower price.

Results

As in Study 5A, participants reported caring more about some purchases than others, with a high mean rating of 6.00 (laptop computer) and a low mean rating of 3.86 (wristwatch) for the material purchases, and a high mean rating of 6.00 (vacation package) and a low mean rating of 4.43 (show in New York City) for the experiential purchases. Collapsing across the different material and experiential purchases again yielded no difference in

⁷ To confirm that these purchases represented their intended categories, 15 participants rated each of them for the degree to which they constituted material possessions or experiences (1 = *definitely material*, 4 = *does not fit in either category*, 7 = *definitely experience*). Each of the purchases was significantly different from the midpoint of the scale in the predicted direction (all t s > 3.00 , $ps < .01$). Error bars indicate the standard error of the mean.

how much participants reported caring about the two different categories of purchase ($t < 1$). Thus, as in Study 5A, any difference in how troubled participants indicated they would be by finding out about a lower price cannot be attributed to any difference in the importance assigned to the particular material and experiential purchases they were asked to consider.

As predicted, learning that the price had been lowered after a purchase had been made was significantly more disturbing to participants who were asked about material purchases ($M = 4.97$, $SD = 1.08$) than to participants asked about experiential purchases ($M = 3.42$, $SD = 1.50$), $t(60) = 4.67$, $p < .001$, $d = 1.20$. Participants who were asked about material purchases also reported that learning about the lower price would diminish their satisfaction with their purchase ($M = 3.29$, $SD = 1.42$) more than did participants who were asked about experiential purchases ($M = 2.39$, $SD = 1.36$), $t(60) = 2.56$, $p < .05$, $d = 0.66$. On both measures, an ANCOVA showed that the difference between participants' ratings in the material and experiential conditions remained significant when the extent to which participants cared about the purchase was controlled: $F(1, 59) = 24.18$, $p < .001$, for how disturbed participants would be, and $F(1, 59) = 6.33$, $p < .05$, for how much it would diminish their satisfaction.

Discussion

Studies 5A and 5B demonstrate that having participants imagine acquiring new information that evokes potentially troublesome counterfactuals has different effects when it comes to material and experiential purchases. The mere knowledge that in some other state of the world, a better outcome could have been obtained, was significantly more disturbing when the purchase was a material good than when it was a life experience. What's more, participants reported that these counterfactuals would diminish their satisfaction with their purchase more in the material than in the experiential case. It is important to note that the superior outcomes (either superior in function or superior in price) that the participants were led to imagine were unattainable at the time of the decision. Although participants were not told explicitly that they could not reverse the state of affairs (by returning the now-diminished purchase), the questions asked participants to indicate how they would feel as a result of merely knowing that better options (or lower prices) were now available. Note, furthermore, that although the ability to make an exchange would presumably diminish the negative impact of learning about a better option or a lower price, an exchange is only plausible in the material case. Any thoughts participants may have had about returning their purchase thus cannot explain the pattern of results we observed.

Study 5C: A Rival's Better Deal

The results of Studies 5A and 5B indicate that people are more affected by invidious comparisons to better options, or better deals, when it comes to material rather than experiential purchases. Often, however, the comparisons people make are not between one option and another, but between a chosen option and someone else's. Does my cell phone get better service than yours? Does your car get better gas mileage than mine? These types of social comparisons are nearly unavoidable (Gilbert, Giesler, & Morris, 1995; Mussweiler, Rüter, & Epstude, 2004; Suls & Wheeler,

2000). In this study, we wanted to examine whether the more comparative nature of material goods leads to more damaging social comparisons.

Specifically, we asked participants to imagine that a material and an experiential purchase did not measure up to the purchase made by a rival—a particularly potent target of social comparison. We predicted that learning that a rival's purchase was superior would diminish participants' satisfaction with their own purchase more when the purchase was a material good than when it was an experience.

Because the boundary between material and experiential goods can be fuzzy (a point to which we return in both the next study and the General Discussion), we have tried to instantiate the different conditions in several different ways. In Studies 1 and 2, participants were asked to think of an example that typified the category for them, allowing them to draw the categorical distinction themselves. In Studies 3, 4, 5A, and 5B, we used specific representative examples of material and experiential purchases to ensure that participants were using the categories as we intended. In this study, we took a hybrid approach. We gave participants a concrete example of either a material or experiential purchase and had them recall a complementary purchase that they considered equivalent to the concrete example provided. This has the benefit of constraining the category with a specific example and of allowing the participants to equate the two purchases themselves. Thus, we can be reasonably sure that the purchases are, at least in the minds of the participants, equivalent.

Method

Participants and procedure. Sixty-six participants completed the survey while waiting for other experiments to begin.

Materials. The scenario asked participants to imagine that a rival had made the same material and experiential purchases that they had, but that their rival's had turned out better in each case. There were two versions of the survey. Participants were given either a specific material purchase (a laptop computer) or a specific experiential purchase (a vacation package) and told that their rival had also purchased one from the same vendor at the same price, but that in talking with the rival afterwards, it was clear that the rival's outcome was better. Participants were then asked to generate an equivalent item from the category other than the one they had been given—that is, to think of an experiential purchase equivalent to a laptop or a material purchase equivalent to a vacation. They were then asked to imagine the same scenario (with the rival's purchase turning out better) with respect to this other purchase. Thus, all participants had in mind a material and an experiential purchase that were, to them, equivalent.

For each purchase, participants indicated on 7-point scales how jealous they would be of their rival's superior purchase and how much their satisfaction with their own purchase would be diminished by learning about their rival's purchase (1 = *not at all jealous/diminished*, 7 = *extremely jealous/diminished*). We predicted that participants would report being more jealous of the rival's superior material purchase and that this knowledge would diminish their satisfaction with their own material purchase more than with their own experiential purchase.

Results and Discussion

There were no differences between the two versions of the survey on any of the measures, indicating that regardless of whether participants were given a specific material purchase and generated an equivalent experience or vice versa, they responded the same (all $ps > .25$). We therefore collapsed across the two versions in all subsequent analyses.

Participants reported being more jealous of a rival's superior material purchase ($M = 4.74$, $SD = 1.26$) than a rival's superior experiential purchase ($M = 4.35$, $SD = 1.65$), paired $t(65) = 2.11$, $p < .05$, $d = 0.32$, indicating that social comparisons loomed larger for the rival's material purchase. This difference in social comparison, furthermore, translated into a more diminished sense of satisfaction with participants' own material purchase ($M = 4.14$, $SD = 1.52$) than with their own experiential purchase ($M = 3.70$, $SD = 1.59$), paired $t(65) = 2.32$, $p < .05$, $d = 0.29$.

Study 6: Material and Experiential Construal

In the studies reported above, we have shown that, despite the occasionally fuzzy boundary between experiences and material possessions, participants seem to have little trouble distinguishing between them in the variety of ways we have asked them to do so. What's more, regardless of the technique used, participants have responded similarly, consistently viewing material items in more comparative terms than experiential items. In the final experiment, we sought to take advantage of the fuzzy boundary between experiences and possessions by examining whether we might observe the same result as above with the purchase held constant, but described in different ways. Specifically, we led one group of participants to think of a boxed set of music as a possession and another group to think of it as an experience. Then, as in Study 5B, we asked them to imagine that the boxed set was now available for less money. We predicted that participants led to think of it as a material possession would be more troubled by this information than participants led to think of it as an experience.

Method

Participants and procedure. Eighty participants were approached on campus to complete the survey in exchange for a small candy bar or completed it as a filler questionnaire in unrelated experiments.

Materials. Participants were asked to imagine that they had just bought a boxed set of their favorite band's music, which included the band's entire catalog in unmatched quality. In the material condition, participants were asked to imagine thinking to themselves on the way home from the store how the boxed set would fit into their music collection, and the prominent place it would assume on their music shelf. In the experiential condition, participants were asked to imagine thinking about the experience of listening to the music and reliving their emotional connection with the songs.

After reading the description of the boxed set, all participants were asked to imagine that, on their way home, they noticed another store selling the same boxed set for considerably less than they had just paid. It was made clear that they could not return their purchase, so they could not take advantage of the lower price.

They were then asked how bothered they would be by this development (1 = *not at all*, 7 = *extremely*), how much it would diminish their satisfaction (1 = *not at all*, 7 = *extremely*), and how much they would regret having made the purchase (1 = *no regret at all*, 7 = *a great deal of regret*). At the end of the survey, participants completed a manipulation check, indicating whether they thought of the boxed set of music as an experience (something one purchases to *do*) or a material possession (something one purchases to *have*), also on a 7-point Likert scale (1 = *definitely a possession*, 4 = *neither*, 7 = *definitely an experience*).

Results and Discussion

Manipulation check. Participants in the material condition ($M = 3.29$, $SD = 1.89$) rated the boxed set as more material in nature than did participants in the experiential condition ($M = 4.05$, $SD = 1.78$), but to a degree that only approached significance, $t(78) = -1.85$, $p < .07$, $d = 0.43$. Considering that the manipulation must overcome participants' existing notions of a boxed set as material or experiential in nature, the marginal impact is perhaps not surprising, and in any event only makes our predicted result harder to obtain.

Dependent measures. Participants' responses to the three questions were averaged into a composite index of displeasure ($\alpha = .77$). As predicted, participants who were led to think of a boxed set of music as a possession indicated that they would be more troubled ($M = 4.57$, $SD = 1.35$) by finding out that it was available at a lower price than participants led to think of it as an experience ($M = 3.97$, $SD = 1.04$), $t(78) = 2.23$, $p < .05$, $d = 0.59$. Although perhaps only relevant to items that do not fall clearly into the category of experience or possession, this finding suggests that *thinking* about a purchase in terms of the experiences it affords can mitigate the impact of potentially invidious comparisons on people's feelings about their material purchases.

General Discussion

The 2007 American holiday shopping season was, unlike its recent predecessors, a dismal one, with a slower economy, higher gas prices, and higher interest rates taking a bite out of the usual post-Thanksgiving spending spree known as Black Friday (Barbaro, 2007). The bite, however, wasn't taken out of the desire to purchase—only the way consumers shopped. Rather than buying fewer things, shoppers searched harder for bargains. They arrived earlier, stood longer in line, and were more determined to find discounts. The same trend was observed the day after Christmas, when people were shopping mainly for themselves (Associated Press, 2007). Throughout the day, shoppers dug through discounted piles of clothes but were left unsatisfied with the prices (Associated Press, 2007). Although a few reporters asked shoppers whether it was worth braving the chilly mornings, long lines, and enormous crowds for the discounts on these major shopping days (Saitz, 2007), no one asked shoppers whether their purchases were going to accomplish the task they had set for themselves—finding items that would improve their lives or make them happier.

We have argued, with support from eight studies, that these types of material purchases—purchases that encourage comparisons with other goods and thus feed regret and rumination—are not best suited to achieve these goals. Rather, because material purchases tend to be

more comparative than experiential purchases, they tend to be approached differently, with comparisons to foregone alternatives persisting and undermining satisfaction with the chosen option. In Study 1, we found that material purchase decisions were more difficult than experiential purchase decisions; that they were evaluated more comparatively; and that the shadows of the foregone options lingered long afterward in participants' minds, leading to less current satisfaction with their material purchases. Study 2 showed that material purchase decisions tend to encourage the use of a maximization strategy, which is associated with negative psychological outcomes (Schwartz et al., 2002), whereas experiential purchases tend to encourage the use of a satisficing approach. Study 3 demonstrated that people spontaneously examine information about relevant unchosen material goods more than information about unchosen experiences. In Study 4, we found that satisfaction with a material good was diminished when it was obtained in the presence of superior material goods, but that satisfaction with an experiential good was not similarly diminished when obtained in the presence of superior experiential goods. Finally, we showed that when people are confronted with the same potentially disturbing comparisons to other goods or experiences—potentially invidious comparisons with better options (Study 5A), lower prices (Studies 5B and 6), and better outcomes obtained by others (Study 5C)—they find these comparisons less disturbing when it comes to experiences than material possessions. Although the participants in all of these studies were college students, we have found the same general tendency for people to derive more enduring satisfaction from their experiential purchases than their material purchases in a national sample of adults (Van Boven & Gilovich, 2003).

Differential Comparability

There are a number of reasons why experiential purchases are less comparative than material purchases. First, experiences are simply harder to align for purposes of comparison than material goods, especially in retrospect. It is a relatively straightforward task to align the size, picture quality, and cost of several televisions before deciding which has the best combination of features. Choosing a dessert by comparing the taste and texture of an apple tart to that of an orange sorbet is considerably more difficult; one must literally compare apples to oranges. Interestingly, recent research has shown that a greater number of alignable attributes was associated with greater satisfaction with both the outcome and decision process (Herrmann, Heitmann, Morgan, Henneberg, & Landwehr, 2009), suggesting that our general finding that participants are more satisfied with their experiential purchases cannot be explained by mere differences in alignability. That said, the ability to align different options and make such comparisons is important to the process of preference construction (Zhang & Markman, 2001) and justification (Markman & Medin, 1995) and can thus directly influence how we approach the decision-making process. Pursuing a maximizing strategy is more likely when the options are directly comparable (which may be more often the case with material purchases), whereas pursuing a satisficing strategy is more likely when the options are not directly comparable (which may be more often the case with experiential purchases).

Thus, experiences may be more inherently evaluable than possessions (Hsee et al., 2009). That is, the pleasure one gets from an experience does not depend as much on comparing it to various alternatives. The taste of cheesecake is generally pleasurable,

whether or not it is the best one available. The quality of one's television, in contrast, may be difficult to assess in the absence of other televisions (Hsee et al., 1999; Hsee & Zhang, 2004). The inherent evaluability of an item appears to determine whether it is evaluated in absolute or relative terms (Hsee et al., 2009).

Second, material purchases persist in time and space, whereas experiences persist largely in our memories. The continued presence of material goods allows one to compare the chosen item to items foregone, to newer and better items, to the same item at different times, or to the items chosen by other people long after the purchase was made. The continued reminder of a disappointing appliance in the kitchen can call to mind such comparisons on a daily basis. The foul taste of a poorly chosen red wine, in contrast, typically dissolves from memory as quickly as the toothbrush dissolves the stains on one's teeth, and the offending bottle disappears with next week's recycling.

Third, experiences tend to be less exchangeable than material goods because they are "inside" of us, part of who we are, rather than "outside," as material possessions inevitably remain (Carter & Gilovich, 2009). Even for materialists, their luxurious experiences reside inside their minds, as memories, while their luxurious possessions are in their closets, their living rooms, or their garages. One can easily imagine trading one's car for a neighbor's car, and if the neighbor's car is nicer, one might very well wish to do so. But it is more difficult to imagine trading one's vacation experience for another's. And even when one can imagine it, one is typically reluctant to make such an exchange, as doing so would entail the loss of one's memories and, ultimately, the loss of a part of oneself (Carter & Gilovich, 2009; Gilovich, 1991). The image of the sun setting over the ocean and the feeling of a lover's hand have become part of the set of life experiences that make us who we are. One's experiences are like one's children: You might take note of a neighbor's valedictorian daughter or a colleague's team-captain son, but you wouldn't trade your children, however mediocre their grade-point average or free-throw percentage, for anything, or anyone, in the world.

Distinguishing Possessions and Experiences

One unavoidable issue in this research is the often fuzzy distinction between material and experiential purchases. That is, whereas some purchases are clearly material (like a collection of classic cars one never drives) and others are clearly experiential (like a vacation), some purchases fall somewhere in between and depend, in large part, on how they are construed. For example, a wine collection might be seen either as something to possess or as something to savor with friends and loved ones. A large flat-screen television might be seen either as a newer and shinier toy than the neighbor's or as the means to relish, in pristine detail, every moment of one's favorite soccer team's season in the English Premier League.

Because of the difficulty of precisely defining experiences and material possessions, we operationalized the distinction in several different ways, so that any shortcoming of one method would be overcome by the strengths of another. For example, in Studies 1 and 2, we described both types of purchases and asked participants to recall examples from their own lives, trusting that they understood the categories sufficiently to make the distinction themselves. In Study 3, we used a number of concrete examples of material and experiential purchase options from several subcategories. In Study 4, we used concrete examples of material and

experiential purchases and had them physically present in the environment. In Studies 5A and 5B, we used specific concrete categories of material and experiential purchases and had participants make judgments about these specific instantiations of the two types of purchases. In Study 5C, we gave participants an example of either a material or an experiential purchase and then asked them to think of an equivalent purchase from the other category. In Study 6, we described the same purchase in terms of its material or experiential qualities and found that participants were less troubled by a better deal available to others when they were induced to think about the purchase as an experience.

Thus, across all our studies, we instantiated the categories in a number of different ways, using a combination of actual and hypothetical purchases. This, we believe, demonstrates the reality and robustness of the categories, however difficult particular items might be to distinguish in certain instances. In the end, the most important distinction might be how an individual construes any particular purchase, either as a possession or as an experience. Indeed, the fuzzy boundary between the two categories can be advantageous, as we showed in Study 6. The results of that study suggest that it is possible to focus on the experiential aspects of even those purchases that tend toward the material pole, with corresponding hedonic benefits. When evaluating a new television, one can think of it not as a thing to own, but as a way to gather with family or friends. This may help prevent troubling comparisons both during and after the decision-making process and promote greater satisfaction with a purchase, especially over time.

In most of the experiments reported here (with Study 4 being an exception), we asked participants either to recall an earlier purchase decision or to imagine how they would react to a comparable purchase by others. This could prompt concern that our findings might misrepresent what actually happens in people's real-life purchase decisions either because our participants' memories are faulty or they cannot accurately intuit how they would react to different material and experiential choices. But note that how people think about their purchases in memory and how they think they would react to them—and to others' purchases—is part and parcel of the phenomena we set out to investigate. A big part of deciding what sort of purchase to make involves constructing hypothetical outcomes and comparisons in order to forecast future satisfaction. Thus, asking participants to imagine themselves in many choice situations draws upon the very processes they would use to assess their feelings if they were actually in those situations. Furthermore, when participants were asked to recall past purchase decisions (as in Studies 1 and 2), they were asked both about how they felt about them at the time (which might indeed be subject to some memory distortion) and about how they felt about them currently (which is not). And how people feel about their purchases in the fullness of time is a big part of their experience of them—and a prominent focus of our research. Importantly, in Study 4 we assessed participants' reactions to tangible material and experiential goods in the here and now, not hypothetical or abstract entities, and found that participants were more troubled by salient material comparisons than salient experiential comparisons.

Happiness Over Time

Another important difference between material and experiential purchases is how people's satisfaction with them tends to unfold

over time. From evidence obtained in Study 1 and in previous research (Van Boven & Gilovich, 2003), it appears that satisfaction with material purchases tends to decrease over time, whereas satisfaction with experiential purchases tends to increase. Even initially satisfying material purchases are likely to deteriorate over time; very few material goods improve with age. A new car does not stay new for long, and trips to the mechanic only become more frequent. Eventually, the car is less a source of happiness than of annoyance—something to be replaced. A satisfying experience, in contrast, often becomes even more positive over time as it is embellished in memory. A wonderful weekend with friends can live on in happy reminiscences and rich stories for years to come. Even an abysmal trip can become a good story, fun to retell as “the time we forgot to pack mosquito repellent and sunscreen on our backpacking trip” (Mitchell, Thompson, Peterson, & Cronk, 1997; see also Wirtz, Kruger, Napa Scollon, & Diener, 2003).

Furthermore, because experiences are incorporated into one's identity (Carter & Gilovich, 2009), the tendency to embellish them in memory can draw upon many of the same intrapersonal processes that lead to favorable self-assessments (Dunning, 2005). Unlike material possessions, which are typically made to fill a specific, concrete purpose, experiences are often purchased for a variety of different reasons, both abstract and concrete. Because one can evaluate an experience both abstractly and concretely, and judge it on many different dimensions, it can be easier to find positive dimensions of evaluation. Just as people tend to use self-serving definitions when evaluating their own traits and abilities (Dunning, Meyerowitz, & Holzberg, 1989), people can use self-serving criteria and different levels of abstraction when evaluating another part of themselves, their memory of an experience. For example, a wristwatch is primarily evaluated on its time-keeping ability and its aesthetics. But a night out at a restaurant can be evaluated either on its concrete dimensions (the taste of the food, the cost of the cab ride) or more abstractly, in terms of the goals it served (bonding with friends, trying something new), depending, at times, on which leads to a more favorable evaluation. If the food is substandard, one can focus on higher order goals, which have considerable leeway in their interpretation and evaluation, particularly at greater temporal distance (Trope & Liberman, 2003).

The fact that many of the hedonic benefits of experiential purchases are realized in the long term can make it hard to follow the implicit message of this research—to spend one's discretionary income on experiences rather than possessions. Initially, material possessions can be quite gratifying, exciting even, and the ephemeral nature of experiences can make them seem frivolous or impractical. But there are tangible benefits to experiential purchases, both in the short and long term, that make their pursuit anything but frivolous. Consider their implications for social relationships. Strong social connections, such as those provided by romantic partners, family, and recreational or civic organizations, are essential ingredients to psychological well-being (Diener & Seligman, 2004; Myers, 2000; Myers & Diener, 1995). Experiences, much more than material possessions, tend to encourage these types of social connections (see Kasser & Sheldon, 2002). We enjoy movies and meals with friends and vacations with our families. Not only does companionship make such experiences more enjoyable, experiences also strengthen the bonds of friendship. As enjoyable as it might be to listen to music on a new MP3 player, the headphones isolate us from those around us. What's more, experiences shared with loved ones are just the sorts of activities that Lyubomirsky, Sheldon, and Schkade (2005); Sheldon & Lyubomir-

sky, 2006) contended are the most critical to sustained well-being. From many angles, the pursuit of experiences over possessions seems to be the firmer path to happiness.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Associated Press. (2007, December 26). *Retailers usher in post-Christmas discounts*. Retrieved from <http://www.cnbc.com/id/22397643>
- Barbaro, M. (2007, November 24). Bargains draw crowds, but the thrill is gone. *The New York Times*. Retrieved from <http://www.nytimes.com>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Brehm, J. W. (1956). Postdecision changes in the desirability of alternatives. *Journal of Abnormal & Social Psychology*, 52, 384–389.
- Carmon, Z., Wertenbroch, K., & Zeelenberg, M. (2003). Option attachment: When deliberating makes choosing feel like losing. *Journal of Consumer Research*, 30, 15–29.
- Carter, T. J., & Gilovich, T. D. (2009). *I am what I do, not what I have: The centrality of experiential purchases to the self-concept*. Manuscript in preparation.
- Diener, E., & Seligman, M. E. P. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, 5, 1–31.
- Dunning, D. (2005). *Self-insight: Roadblocks and detours on the path to knowing thyself*. New York, NY: Psychology Press.
- Dunning, D., Meyerowitz, J. A., & Holzberg, A. D. (1989). Ambiguity and self-evaluation: The role of idiosyncratic trait definitions in self-serving assessments of ability. *Journal of Personality and Social Psychology*, 57, 1082–1090.
- Gilbert, D. T., Giesler, R. B., & Morris, K. A. (1995). When comparisons arise. *Journal of Personality and Social Psychology*, 69, 227–236.
- Gilovich, T. (1991). *How we know what isn't so: The fallibility of human reason in everyday life*. New York, NY: Free Press.
- Gilovich, T., & Medvec, V. H. (1995). The experience of regret: What, when, and why. *Psychological Review*, 102, 379–395.
- Herrmann, A., Heitmann, M., Morgan, R., Henneberg, S. C., & Landwehr, J. (2009). Consumer decision making and variety of offerings: The effect of attribute alignability. *Psychology and Marketing*, 26, 333–358.
- Hsee, C. K., Loewenstein, G. F., Blount, S., & Bazerman, M. H. (1999). Preference reversals between joint and separate evaluations of options: A review and theoretical analysis. *Psychological Bulletin*, 125, 576–590.
- Hsee, C., Yang, Y., Li, N., & Shen, L. (2009). Wealth, warmth, and well-being: Whether happiness is relative or absolute depends on whether it is about money, acquisition, or consumption. *Journal of Marketing Research*, 46, 396–409.
- Hsee, C. K., & Zhang, J. (2004). Distinction bias: Misprediction and mischoice due to joint evaluation. *Journal of Personality and Social Psychology*, 86, 680–695.
- Iyengar, S. S., Wells, R. E., & Schwartz, B. (2006). Doing better but feeling worse: Looking for the “best” job undermines satisfaction. *Psychological Science*, 17, 143–150.
- Kahneman, D., & Miller, D. T. (1986). Norm theory: Comparing reality to its alternatives. *Psychological Review*, 93, 136–153.
- Kasser, T., & Sheldon, K. M. (2002). What makes for a merry Christmas? *Journal of Happiness Studies*, 3, 313–329.
- Loomes, G., & Sugden, R. (1982). Regret theory: An alternative theory of rational choice under uncertainty. *The Economic Journal*, 92, 805–824.
- Lyubomirsky, S., & Ross, L. (1997). Hedonic consequences of social comparison: A contrast of happy and unhappy people. *Journal of Personality and Social Psychology*, 73, 1141–1157.
- Lyubomirsky, S., & Ross, L. (1999). Changes in attractiveness of elected, rejected, and precluded alternatives: A comparison of happy and unhappy individuals. *Journal of Personality and Social Psychology*, 76, 988–1007.
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, 9, 111–131.
- Markman, A. B., & Medin, D. L. (1995). Similarity and alignment in choice. *Organizational Behavior and Human Decision Processes*, 63, 117–130.
- Mitchell, T. R., Thompson, L., Peterson, E., & Cronk, R. (1997). Temporal adjustments in the evaluation of events: The “rosy view.” *Journal of Experimental Social Psychology*, 33, 421–448.
- Morewedge, C. K., Gilbert, D. T., Kassam, K. S., Myrseth, K. O. R., & Wilson, T. D. (2009). *Consuming experiences: Why we don't make the comparisons we anticipate*. Manuscript in preparation.
- Mussweiler, T., Rüter, K., & Epstude, K. (2004). The man who wasn't there: Subliminal social comparison standards influence self-evaluation. *Journal of Experimental Social Psychology*, 40, 689–696.
- Myers, D. G. (2000). The funds, friends, and faith of happy people. *American Psychologist*, 55, 56–67.
- Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science*, 6, 10–19.
- Roose, N. J. (2005). *If only*. New York, NY: Broadway Books.
- Saitz, G. (2007, November 23). Black Friday shopping madness. *The Star-Ledger*. Retrieved from http://www.nj.com/business/index.ssf/2007/11/black_friday_shopping_madness.html
- Schwartz, B. (2004). *The paradox of choice: Why more is less*. New York, NY: HarperCollins.
- Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D. R. (2002). Maximizing versus satisficing: Happiness is a matter of choice. *Journal of Personality and Social Psychology*, 83, 1178–1197.
- Sheldon, K. M., & Lyubomirsky, S. (2006). Achieving sustainable gains in happiness: Change your actions, not your circumstances. *Journal of Happiness Studies*, 7, 55–86.
- Simon, H. A. (1955). A behavioral model of rational choice. *Quarterly Journal of Economics*, 69, 99–118.
- Solnick, S. J., & Hemenway, D. (1998). Is more always better?: A survey on positional concerns. *Journal of Economic Behavior & Organization*, 37, 373–383.
- Solnick, S. J., & Hemenway, D. (2005). Are positional concerns stronger in some domains than in others? *The American Economic Review*, 95, 147–151.
- Sugden, R. (1985). Regret, recrimination and rationality. *Theory and Decision*, 19, 77–99.
- Suls, J., & Wheeler, L. (Eds.). (2000). *Handbook of social comparison: Theory and research*. Dordrecht, the Netherlands: Kluwer Academic.
- Tian, K. T., Bearden, W. O., & Hunter, G. L. (2001). Consumers' need for uniqueness: Scale development and validation. *Journal of Consumer Research*, 28, 50–66.
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, 110, 403–421.
- Van Boven, L., & Gilovich, T. (2003). To do or to have? That is the question. *Journal of Personality and Social Psychology*, 85, 1193–1202.
- Wirtz, D., Kruger, J., Napa Scollon, C., & Diener, E. (2003). What to do on spring break? The role of predicted, on-line, and remembered experience in future choice. *Psychological Science*, 14, 520–524.
- Zhang, S., & Markman, A. B. (2001). Processing product unique features: Alignability and involvement in preference construction. *Journal of Consumer Psychology*, 11, 13–27.

Received February 26, 2008

Revision received July 6, 2009

Accepted July 13, 2009 ■