

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)**ScienceDirect**

Journal of Consumer Psychology xx, x (2015) xxx–xxx



Research Article

# To do or to have, now or later? The preferred consumption profiles of material and experiential purchases

Amit Kumar, Thomas Gilovich\*

Cornell University, USA

Received 15 July 2014; received in revised form 23 June 2015; accepted 26 June 2015  
Available online xxx

## Abstract

Extending previous research on the hedonic benefits of spending money on doing rather than having, this paper investigates *when* people prefer to consume experiential and material purchases. We contend that the preferred timing of consumption tends to be more immediate for things (like clothing and gadgets) than for experiences (like vacations and meals out). First, we examine whether consumers exhibit a stronger preference to delay consumption of experiential purchases compared to material goods. When asked to make choices about their optimal consumption times, people exhibit a relative preference to have now and do later. In the next set of studies, we found that this difference in preferred consumption led participants to opt for a lesser material item now over a superior item later, but to wait for a superior experiential purchase rather than settle for a lesser experience now. This tendency is due to the fact that consumers derive more utility from waiting for experiences than from waiting for possessions. Finally, we provide evidence that these preferences affect people's real-world decisions about when to consume.

© 2015 Society for Consumer Psychology. Published by Elsevier Inc. All rights reserved.

*Keywords:* Experiential purchases; Materialism; Waiting; Anticipation; Intertemporal choice

## Introduction

Nearly everyone has limited discretionary income and so it is important that consumers know how to spend their money in the most beneficial ways. Recent research on this issue has focused on *what* they might be advised to purchase to increase their hedonic welfare (Dunn, Gilbert, & Wilson, 2011; Dunn & Norton, 2013; Gilovich & Kumar, 2015; Gilovich, Kumar, & Jampol, 2015a, 2015b; Van Boven & Gilovich, 2003). In this paper, we examine *when* people prefer to spend it, and how those preferences change depending on what they are buying. Although it is known that a trip to Paris or meal at Daniel is likely to bring about more happiness than a new wristwatch or a

set of rims for one's Mercedes (Van Boven & Gilovich, 2003), might even more satisfaction be derived when the vacation or dining experience is consumed not now, but later?

A substantial amount of research in psychology and economics indicates that people have a general preference to consume now rather than later, a preference so pronounced that quite a bit of research has been devoted to finding ways to encourage people to delay gratification (Duckworth & Seligman, 2005; Loewenstein & Prelec, 1992; McClure, Laibson, Loewenstein, & Cohen, 2004; Mischel, 1974). At the same time, Loewenstein (1987) provided evidence that people sometimes prefer to delay consumption, so they can savor an experience that will be consumed in the future. Closing our eyes and envisioning endless possibilities for how things might turn out is itself a pleasurable experience, sometimes more rewarding than the here-and-now of the actual experience itself. Loewenstein maintains that the desire to savor and put off consumption is especially likely when the consumption is fleeting: because the satisfaction that such consumption provides is only temporary, a prior period of savoring allows people to increase

\* Corresponding author at: Department of Psychology, Cornell University, Ithaca, NY 14853-7601, USA. Tel.: +1 607 255 6432.

E-mail address: [tdg1@cornell.edu](mailto:tdg1@cornell.edu) (T. Gilovich).

their hedonic return. Indeed, in the marketing literature as well, though a number of studies have found that customers do not like waiting (e.g., Hoch & Loewenstein, 1991; Houston, Bettencourt, & Wenger, 1988; Taylor, 1994), some researchers have argued that waiting can be positive (e.g., Nowlis, Mandel, & McCabe, 2004). For example, in line with Loewenstein's (1987) theorizing, waiting for a consumer purchase is more likely to increase utility when one is anticipating pleasant rather than unpleasant consumption (Nowlis et al., 2004).

The work on savoring and delayed consumption led to a recent exploration of how the experience of waiting might be different for two different types of consumption (Kumar, Killingsworth, & Gilovich, 2014). This work investigated how the experience of waiting differs for experiential and material purchases — that is, money spent on *doing* (e.g. vacations, concerts, sporting events, meals out) versus money spent on *having* (e.g. clothing, gadgets, jewelry, furniture). A growing body of literature has found that experiential purchases tend to bring about more enduring happiness than material possessions (Caprariello & Reis, 2013; Carter & Gilovich, 2010, 2012, 2014; Gilovich & Kumar, 2015; Gilovich et al., 2015a, 2015b; Howell & Hill, 2009; Kumar & Gilovich, in press; Nicolao, Irwin, & Goodman, 2009; Van Boven & Gilovich, 2003). This difference in consumer satisfaction is the result of several psychological processes: experiential purchases are less subject to invidious comparisons (Carter & Gilovich, 2010), are more central to a person's sense of self (Carter & Gilovich, 2012), are typically more social in nature (Caprariello & Reis, 2013; Kumar, Mann, & Gilovich, in preparation), and tend to be talked about more with other people (Kumar & Gilovich, in press).

Although nearly all of the existing research on people's enjoyment of material and experiential purchases has dealt solely with the hedonic return that comes *after* consumption, Kumar et al. (2014) found that there is a difference in the value derived from material and experiential purchases even *before* the good is acquired or the experience attained. In one study, they found that when participants were asked to think about a purchase they intended to make in the near future, their anticipation tended to be more pleasant, more exciting, and less fraught with impatience for experiential purchases than for material purchases. This finding was replicated in a large-scale experience sampling study: Participants who were “caught in the act” of thinking about future experiential consumption reported being happier, more excited, and less impatient than those thinking about future materialistic consumption. Finally, an archival analysis of news stories about people waiting in long lines found that those waiting for an experience (e.g., for the opening of a food truck) tended to be in a better mood, and better behaved, than those waiting for a possession (e.g., for the doors to open on Black Friday). There are times, then, when waiting is part of the fun, and that seems to be the case significantly more often for experiential purchases than for material purchases.

In his seminal paper, Loewenstein (1987) maintained that the value people get from anticipation can lead them to delay consumption. For instance, in the signature finding from that work, people said they would prefer to receive a kiss from their

favorite movie star three days in the future rather than right away. Accordingly, we sought to extend the findings from Kumar et al. (2014) by looking into whether, as a result of the difference in the pleasure associated with waiting, people might prefer to delay their consumption of experiential purchases, while preferring to consume material purchases immediately. Indeed, people seem to enjoy planning their vacations as much or more than actually going on them. In one study, vacationers were happier in the weeks leading up to a vacation than the weeks that followed, suggesting that they didn't get much of a hedonic boost, or much of an enduring boost, from the vacation itself (Nawijn, Marchand, Veenhoven, & Vingerhoets, 2010). Thus, one way people may seek to boost the happiness they get from their experiential purchases is to delay their consumption.

Of course, people might delay the consumption of experiences for a psychologically uninteresting reason: because they are often over quickly and the only way to stretch out their enjoyment is to put off when they begin. Material purchases, in contrast, can usually be enjoyed now *and* down the road. Although this difference doubtless accounts for part of the phenomenon we explore here, it is not the whole story, as we show in three ways below. First, we had participants in some studies tell us when they would like to consume experiential purchases that have the same still-available-for-further-consumption property as most material goods. Second, we had participants express their temporal preferences for experiential purchases relative to material possessions that were also time-limited, just like most experiences. Finally, we had participants in one study specify when they would most like to make the same purchase—a trip to New York City—that they were led to construe in more material or experiential terms. By holding the broad nature of the purchase constant, we were able to rule out the possibility that people prefer to delay their acquisition of experiences more than material goods simply because the latter are more available for later consumption than the former.

In their initial work on the topic, Van Boven and Gilovich (2003) asked a simple question: “To Do or To Have?” When it comes to happiness and consumer satisfaction, their answer was clear—the hedonic return tends to be greater for experiential purchases than for material purchases. Here we ask an important follow-up question: When? To that end, we first show in Studies 1a through 1c that when asked to choose between an experience and a possession at different times, people show a marked preference for consuming the material purchase now and the experiential purchase later. We then extend these findings in Study 2a using a different paradigm in which participants simply state their preferred time of consumption of a variety of different purchases. Study 2b replicates this result using a material purchase and an experiential purchase that can be (in equal measure) consumed repeatedly. Next, participants in Studies 3a–3c were presented with a choice between a lesser purchase now and a superior purchase later on and we examined whether they were more likely to choose lesser material possessions now but opt to wait to consume the superior experiential purchases later. Study 3b demonstrates that this preference can be traced to the tendency of consumers to get more utility from

waiting for experiential purchases than from waiting to acquire material goods. Finally, we investigate whether people's real-world consumption decisions conform to this pattern (Study 4).

### Experiments 1a–1c

Because people consume anticipation and get more utility from waiting for experiences than waiting for possessions (Kumar & Gilovich, *in press*; Kumar et al., 2014; Loewenstein, 1987), we examined whether people are more inclined to delay the consumption of experiences than the consumption of material goods. More specifically, would people prefer to have a possession now and an experience later, or an experience now and a possession later? We presented participants in Study 1a with just such a choice as an initial assessment of whether people would rather delay their consumption of experiences than delay their consumption of material purchases. But as we noted earlier, there is a powerful, banal reason to be more inclined to put off the consumption of an experience than a material possession: most experiences are “time limited” but most material goods are not. To deal with this concern, we conducted two follow-up replications (Studies 1b and 1c) using an experiential and material purchase that were matched on the degree to which they were time limited.

#### Method

##### Participants

Ninety-seven students and affiliates at Cornell university (45 female;  $M_{\text{age}} = 21.24$ ,  $SD = 3.71$ ) served as participants in Study 1a and 99 (different) students from the same university served as participants in Study 1b (58 female;  $M_{\text{age}} = 19.91$ ,  $SD = 2.51$ ). Both samples were recruited at various locations around campus and asked to volunteer their time. One hundred U.S. respondents (38 female;  $M_{\text{age}} = 29.83$ ,  $SD = 8.60$ ) from Amazon's Mechanical Turk participated in Study 1c in exchange for modest compensation.

##### Procedure

Participants in Study 1a were told to imagine that they were given \$1500 to spend on two purchases: an electronic gadget that cost \$750 and an all-expenses-paid beach vacation that also cost \$750. It is worth noting that in addition to being matched on price, these two broad categories have been shown in previous research (Kumar & Gilovich, *in press*) to be comparable in subjective appeal. That is, 40 raters in a separate investigation (from the same participant pool) confirmed that vacations and electronic goods are seen as roughly equally attractive. They were asked to imagine that they had a sum of money to spend on a gadget or a beach vacation and asked to rate on a scale from 1 (*not at all appealing*) to 7 (*very appealing*) how appealing such a purchase seemed to them. Electronic goods ( $M = 5.60$ ,  $SD = 1.82$ ) and beach vacations ( $M = 4.85$ ,  $SD = 1.53$ ) did not differ in appeal,  $t(38) = 1.41$ ,  $p = 0.17$ . This is especially likely to be true when they cost exactly the same amount, as they do in the current investigation.

They were then told to imagine further that they were given this money with one stipulation: one purchase had to be made within the week, and the other purchase had to be made at least one month from now. Participants were then asked to choose which purchase they wanted now and which one they wanted later. They then provided their age and gender. For this and all studies reported below, we have reported all conditions and analyzed all dependent measures, and no data were excluded from any of our analyses.

In Study 1b, participants were asked to imagine that they were given enough money to make two purchases: an electronic gadget and a lifetime membership at a local museum. They were told to assume that these two purchases cost exactly the same amount. They were then asked to indicate which purchase they'd rather have now and which they'd rather have in the future.

Participants in Study 1c were also asked to imagine that they were given enough money to make two different purchases: an experiential purchase and a material purchase that they could only use for a limited amount of time. The experiential purchase was an outdoor activity that one pays for (e.g. rafting, skydiving). The material purchase was a “loaner” pair of Google Glass that they could use for two weeks. They were told that they wouldn't get to keep the new gadget indefinitely, but would get to try it out for a limited time. They, too, were told to assume that the two purchases cost exactly the same amount and were then asked to indicate which purchase they'd rather make immediately and which they'd rather make later.

#### Results

No significant main effects of age or gender, nor any interactions with experimental condition, were found for any of our dependent measures. These demographic variables are therefore not discussed further.

Sixty-eight percent of the participants in Study 1a indicated that they would rather have the gadget now and the vacation later. This was statistically different from the 50/50 split expected under the null hypothesis of indifference between the two options,  $\chi^2(1, N = 97) = 12.63$ ,  $p < 0.001$ ,  $\phi = 0.36$ .

In Study 1b, 88.89% of the participants reported that they would rather have the gadget now and the lifetime museum membership later. This result was also significantly different from the 50–50 indifference split,  $\chi^2(1, N = 99) = 59.89$ ,  $p < 0.0001$ ,  $\phi = 0.78$ .

In Study 1c, 65.00% of the respondents said they would rather have the gadget immediately and do the outdoor activity later. This too was significantly different from a 50–50 split,  $\chi^2(1, N = 100) = 9.00$ ,  $p < 0.01$ ,  $\phi = 0.30$ .

Thus, when forced to choose, people prefer to have their material purchases sooner and their experiential purchases later. This was true, furthermore, even when the experiential purchase (lifetime museum membership) could be experienced as far into the future as the material purchase (electronic gadget) and when the material purchase (a test pair of Google Glass) was time-limited, as is typically the case with experiential purchases. Even in situations in which the material good is finite and the experience is durable, consumers seem to want to put off the

consumption of experiences but have material possessions now, supporting our thesis.

### Experiments 2a and 2b

Given the preferences that the participants exhibited in Studies 1a through 1c, we conducted Studies 2a and 2b to further test whether people prefer to delay consumption of experiential purchases more than material purchases. Participants in Study 2a were provided with a variety of material and experiential purchases and asked to indicate their ideal consumption time for each. We predicted that people would state a preferred time of consumption that was farther in the future for experiences than for material goods. Study 2b was designed to examine whether the results obtained in Study 2a might be an artifact of the fact that experiential purchases tend to be time-limited but material goods are not.

#### Method

##### Participants

Participants in Study 2a were 98 American adults (50 female;  $M_{\text{age}} = 32.13$ ,  $SD = 10.89$ ) recruited via Amazon's Mechanical Turk in return for a nominal payment. Those in Study 2b were 102 U.S. Mechanical Turk users (31 female;  $M_{\text{age}} = 29.08$ ,  $SD = 9.25$ ) recruited in the same way as in Study 2a.

##### Procedure

Participants in both studies first read a brief statement about how there are certain things people spend money on that they want immediately and other things they'd rather wait and have at some point in the future. Those in Study 2a were told they would be presented with a number of purchases and asked to imagine that they had the money to spend on each one, but that they could decide when they'd want to consume the purchase in question. Participants were then presented with 20 purchases, ten experiential and ten material, in a different randomized order for each participant. They indicated, for each purchase, their preferred consumption time on a 5-point scale anchored at 1 (*Immediately*) and 5 (*One year from now*).

The ten experiential purchases were tickets to a sporting event, a beach vacation, ski passes, a meal at a nice restaurant, concert tickets, a trip to the zoo, movie tickets, fees for an outdoor activity (e.g. hiking, rafting, skydiving), a cruise package, and a trip to New York City. The ten material purchases were a jacket, pair of jeans, shirt, television set, stereo speakers, iPod, wristwatch, diamond necklace, designer handbag, and laptop computer. These two sets of purchases have been used in previous research, with the experiential and material purchases matched in terms of subjective appeal (Kumar & Gilovich, *in press*). More specifically, two independent coders who were unaware of the purpose of the experiment rated these twenty purchases both in terms of appeal to them personally and likely appeal to the average person on 5-point scales, where 1 represented "*not very appealing*" and 5 represented "*very appealing*." The material ( $M = 3.80$ ,  $SD = 0.63$  for the first rating;  $M = 3.60$ ,  $SD = 0.66$

for the latter) and experiential ( $M = 3.85$ ,  $SD = 1.16$ ;  $M = 3.95$ ,  $SD = 0.60$ ) purchases did not differ significantly on either rating of subjective appeal,  $t$ 's = 0.12 and 1.24,  $p$ 's = 0.91 and 0.23. Our results are therefore not an artifact of the set of experiential or material purchases being higher in value or appeal.

Study 2b followed this basic set-up, but participants were only presented with two purchases, rather than twenty. They were told to imagine that they were thinking about buying a new electronic gadget and a lifetime membership at a local museum and that these purchases cost the same amount. They were asked to assume they had the money to spend on both purchases and to state their preference, using the same 5-point scale used in Study 2a, for when they'd want the consumption of that purchase to happen.

#### Results

Participants in Study 2a reported that they would want to delay consumption of the experiential purchases ( $M = 3.31$ ,  $SD = 0.72$ ) longer than the material goods ( $M = 2.79$ ,  $SD = 1.12$ ), matched pairs  $t(97) = 5.70$ ,  $p < 0.0001$ , Cohen's  $d = 0.63$ . In Study 2b, even when they were thinking about an experiential purchase that could be used both now and in the future, respondents indicated that would prefer to delay consumption of the experiential purchase ( $M = 2.98$ ,  $SD = 1.50$ ) longer than the material purchase ( $M = 1.80$ ,  $SD = 1.09$ ), matched pairs  $t(101) = 6.39$ ,  $p < 0.0001$ , Cohen's  $d = 0.64$ . These results provide further evidence of a relative preference to delay the consumption of experiences.

### Experiment 3a

When deciding whether to make a purchase, we are often forced to choose whether we want to consume now or wait until something better comes along. Do we go ahead and order the current model of a Smartphone, knowing that a newer, improved model will be out shortly? What if we knew that we could have a better experience in a few months than we could have now—would we want to wait in *that* circumstance, or consume more immediately? In Study 3a, participants were given an intertemporal choice task in which they could opt for a more modest version of a product/experience now or a better version later on. We predicted that participants would exhibit more patience for experiential purchases than material purchases. That is, we hypothesized that they would prefer to wait for a better experiential purchase, but would be more inclined to select the "lesser" material purchase immediately.

#### Method

##### Participants

Ninety-five students at a large, private northeastern university (46 female;  $M_{\text{age}} = 19.88$ ,  $SD = 1.78$ ) were recruited at various locations around campus and asked to participate in a short study.

### Procedure

Participants were given a brief definition of either experiential or material purchases, as per Van Boven and Gilovich (2003). Experiential purchases were defined as those “made with the primary intention of acquiring a life experience: an event or series of events that one lives through.” Material purchases were defined as those “made with the primary intention of acquiring a material good: a tangible object that is kept in one’s possession.” They were then asked to take a moment to think about a purchase in the given category that they intended to make in the near future and to indicate what that purchase was. They were further asked to imagine that 6 months from now, for the very same price, they could get an “upgraded” version of that purchase. Participants in both conditions were given an example of what we meant by that (e.g., “...if the experiential purchase you listed was ‘going on a trip,’ imagine you knew that if you waited for six months, the same amount of money would get you a much better trip.”).

After receiving this information, they were asked to indicate whether they would opt for the purchase they could make right now or the “upgraded” purchase they could make six months from now. Specifically, they rated their inclinations on a scale from  $-4$  (*Strongly prefer making the purchase now*) to  $4$  (*Strongly prefer the improved purchase later*), with the mid-point (0) representing indifference between the two options. Participants then indicated how much money they intended to spend on the purchase in question.

### Results

Participants reported planning to make a variety of experiential (e.g., tickets to performances, trips) and material (e.g., clothing, gadgets) purchases. Two participants did not report the cost of their purchase, but responded to all other measures. Due to skewness in the price data, we conducted inferential tests using the natural log of the cost of each purchase, but report the untransformed descriptive statistics for ease of interpretation. The material (*Median* = \$50, *SD* = 229.48) and experiential (*Median* = \$225, *SD* = 7362.75) purchases participants listed differed in (natural) log-transformed price,  $t(91) = 4.54$ ,  $p < 0.0001$ . We therefore included purchase price as a covariate in the analysis below to rule out any concern that our results are driven by differences in the cost of participants’ anticipated purchases.

As predicted, material and experiential purchases also differed in terms of when participants would prefer to consume them, with participants wanting to wait for better experiential purchases ( $M = 1.29$ ,  $SD = 2.48$ ), but not to wait for better material purchases ( $M = -0.51$ ,  $SD = 2.72$ ),  $\beta = 0.85$  ( $SE = 0.29$ ),  $p < 0.01$ . Log-transformed price was not a significant predictor of participants’ preferred time of consumption,  $\beta = 0.18$  ( $SE = 0.16$ ),  $p = 0.25$ . Moreover, the preference for the delayed option was significantly higher than the midpoint in the experiential purchase condition, one-sample  $t(47) = 3.62$ ,  $p < 0.001$ , but the mean response in the material condition did not differ from the midpoint,  $t(47) = -1.29$ ,  $p = 0.20$ .

### Experiment 3b

We contend that people’s differential preferences for the timing of material and experiential consumption are due to the fact that waiting is more enjoyable for experiential purchases (Kumar & Gilovich, *in press*; Kumar et al., 2014). To examine whether this is the case, we conducted a conceptual replication of Study 3a and added a measure of how much utility participants said they got from anticipating the purchase in question. We then examined whether people, as has been shown elsewhere (Kumar et al., 2014), find the anticipation of experiential purchases more pleasurable than the anticipation of material purchases, and whether this difference mediates the tendency for people to want to delay the purchase of experiences longer.

### Method

#### Participants

Ninety-seven students and affiliates at Cornell university (57 female;  $M_{\text{age}} = 20.79$ ,  $SD = 3.35$ ) volunteered to participate.

#### Procedure

As in Study 3a, participants were given definitions of either experiential or material purchases (between-subjects) and asked to list a purchase in the given category they intended to make in the near future. Participants were then told that “We get enjoyment from our purchases for a variety of reasons—we anticipate the happiness we are going to get from our purchases, we enjoy them in the here-and-now, and we derive happiness from our memories of them and from talking about them with other people.” They were asked to focus on the utility that comes from the anticipation phase. After reading a brief statement that waiting can sometimes be pleasant and sometimes be unpleasant, participants rated how much the anticipation period *took away from* or *added to* their overall enjoyment of the purchase that they had listed. They responded on a scale from  $-4$  (*Takes away from it a lot*) to  $4$  (*Adds to it a lot*), where the midpoint was labeled “*Has no effect on my enjoyment.*” The procedure then followed that of Experiment 3a exactly.

### Results

Four participants did not report the cost of their purchase, but did respond on all other measures. Again, participants reported a similar variety of experiential and material purchases. And, like in Study 3a, the distribution of the cost of these purchases was skewed. We therefore once again conducted analyses using natural log-transformed prices, but report untransformed descriptive statistics. This time, the experiential purchases participants were planning to make (*Median* = \$100, *SD* = 688.88) were significantly more expensive than the material purchases (*Median* = \$40, *SD* = 224.81),  $t(91) = 2.91$ ,  $p < 0.01$ . To account for this difference, we therefore again included price as a covariate in the analyses below.

Conceptually replicating the findings of Kumar et al. (2014), participants in Study 3b rated the anticipatory period as adding

more to their of enjoyment of experiential purchases ( $M = 1.92$ ,  $SD = 1.48$ ) than material purchases ( $M = 1.17$ ,  $SD = 1.65$ ),  $\beta = 0.39$  ( $SE = 0.16$ ),  $p < 0.02$ . Purchase price was not a significant predictor of how much anticipation added to participants' rated enjoyment,  $\beta = -0.12$ , ( $SE = 0.08$ ),  $p = 0.16$ . These results indicate that although the period of anticipation is positive for both experiential and material purchases (both means were significantly above the midpoint,  $t_{\text{experiential}}(48) = 9.05$ ,  $p < 0.0001$  and  $t_{\text{material}}(47) = 4.89$ ,  $p < 0.0001$ ), it is significantly more positive for experiences.

Directly replicating the results from the previous study, participants reported wanting to wait for better experiential purchases ( $M = 1.59$ ,  $SD = 2.47$ ), but not for better material purchases ( $M = 0.25$ ,  $SD = 2.82$ ),  $\beta = 0.63$  ( $SE = 0.29$ ),  $p = 0.03$ . Price did not significantly predict participants' interest in delaying consumption,  $\beta = 0.06$  ( $SE = 0.15$ ),  $p = 0.71$ . Also like Study 3a, the preference for the delayed option was again significantly higher than the midpoint in the experiential purchase condition, one-sample  $t(48) = 4.52$ ,  $p < 0.0001$ , but the mean response in the material condition did not differ from the midpoint,  $t(47) = 0.61$ ,  $p > 0.5$ .

To examine whether the fact that waiting for an experience is more pleasurable than waiting for a material good mediates participants' inclination to wait to receive a better experience, we regressed participants' intertemporal preferences onto purchase condition and our measure of anticipatory utility and found that condition was no longer a significant predictor of purchase satisfaction,  $p > 0.06$ , while anticipatory utility did predict intertemporal preference,  $\beta = 0.45$ ,  $p < 0.01$  (see Fig. 1 for details). This mediational relationship was confirmed by a bootstrapping analysis (bias-corrected; 10,000 samples), in which the 95% CI on the indirect effect did not include zero [0.05, 0.90]. In other words, participants were more willing to wait for a better experiential purchase than for a better material purchase, and this difference was due to the differences in the anticipatory utility of these different types of purchases.

### Experiment 3c

As noted earlier, there is some concern that the results in Studies 3a and 3b may have been driven largely by the fact that the material goods participants listed tend to endure over time and thus have an open-ended consumption horizon. Participants might want to enjoy them right away, knowing that they can

continue to enjoy them later. To address this issue, we conducted a conceptual replication of Study 3a in which we held the purchase constant and varied whether participants were led to think of it in material or experiential terms. In past research, a given purchase (a 3D TV, a boxed set of CDs) provided a greater hedonic benefit when participants were led to think of it in experiential rather than material terms (Carter & Gilovich, 2010, 2012; Rosenzweig & Gilovich, 2012). In this study, we examined whether participants would be more inclined to delay their consumption of a purchase when they were led to think about it in experiential terms. We predicted that even a prototypically experiential purchase (a vacation) is desired more immediately when one highlights the material aspects of that purchase than when one focuses on its experiential elements.

### Method

#### Participants

One hundred U.S. participants (26 female;  $M_{\text{age}} = 31.29$ ,  $SD = 9.75$ ) were recruited from Amazon's Mechanical Turk in exchange for modest monetary compensation.

#### Procedure

Participants were asked to imagine they were planning a trip to New York City. Those in the material condition were told, "As you may know, New York City is one of the biggest commercial centers in the world, and is a great place to buy lots of new possessions to take home with you. For instance, shoppers in New York often buy high-end clothing and jewelry, trendy home furnishings, and the latest gadgets. Just think of all of the things you could buy on your trip!"

Participants in the experiential condition were also asked to imagine a trip to New York City, but were instead told, "As you may know, New York City is one of the cities in the world with the most to do, and is a great place to have lots of fun experiences. For instance, travelers to New York often eat out at delicious restaurants, take in a show at a Broadway theater or one of the city's many live music venues, or go to some of the country's most famous museums. Just think of all the things you could do on your trip!"

As a manipulation check, we gave one of the two trip descriptions to a separate sample of 88 people. After they read the description, all participants were given definitions of both experiential and material purchases, per Van Boven and Gilovich (2003) and reproduced above. These participants were asked to rate the trip described to them on a 9-point scale, where 1 represented "Much more like a material purchase" and 9 represented "Much more like an experiential purchase." Testifying to the success of the manipulation, participants given the experiential frame rated the trip as more experiential ( $M = 7.40$ ,  $SD = 1.50$ ) than those given the material frame ( $M = 4.79$ ,  $SD = 2.55$ ), unequal variances  $t(67.30) = 5.82$ ,  $p < 0.001$ , Cohen's  $d = 1.25$ . Note also that the mean in the experiential condition was significantly higher than the midpoint of the scale,  $t(44) = 10.74$ ,  $p < 0.0001$ , while the mean in the material condition did not differ from the midpoint of the scale,  $t(42) = -0.54$ ,  $p = 0.59$ .

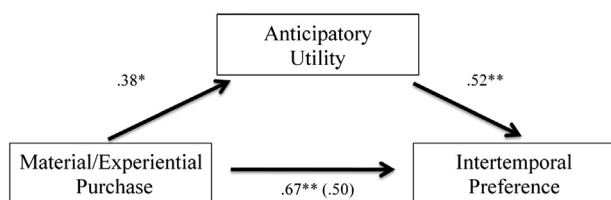


Fig 1. Relative to material purchases, experiential purchases provide more anticipatory pleasure, which, in turn, increases preferences for delayed consumption. Note: the beta weight in parentheses reflects the effect of type of purchase when the mediator is included in the regression. \*\* $p \leq .01$  and \* $p \leq .05$ .

To rule out the possibility that a difference in the subjective appeal of the experiential and material trips might have artifactually produced the predicted effect, we also provided one of the two descriptions of the trip to a separate sample of 82 Mechanical Turk workers. After reading either the material or experiential description of the trip, they were asked how appealing such a trip to New York sounded to them on a scale from 1 (*not at all appealing*) to 9 (*extremely appealing*). The vacation was not seen as more or less appealing in the experiential ( $M = 6.85$ ,  $SD = 2.16$ ) and material ( $M = 6.93$ ,  $SD = 2.45$ ) conditions,  $t(80) = 0.14$ ,  $p = 0.89$ .

After reading one of these two descriptions of a trip to New York City, the participants in Study 3c were given a scenario like the one we provided participants in Studies 3a and 3b. Specifically, they were told to imagine that 6 months from now, they could get an “upgraded” version of this purchase. That is, they were told to imagine that if they waited for six months, the same amount of money would get them a much better trip. They then indicated their (temporal) consumption preference using the same scale as that used in Studies 3a and 3b.

### Results

Participants were more inclined to wait for a trip to New York City when it was construed in experiential ( $M = 2.94$ ,  $SD = 1.61$ ) rather than material ( $M = 2.28$ ,  $SD = 1.76$ ) terms,  $t(98) = 1.96$ ,  $p = 0.05$ , Cohen’s  $d = 0.39$ . Thus, even when the same purchase (a vacation) is considered more experiential than material in nature, people are more interested in delaying its consumption.

### Experiment 4

To further test the robustness of our central result, we examined whether consumers are more inclined to *have* now and *do* later in yet another paradigm. That is, we had participants generate actual purchases from their own lives that best fit either: (a) the type of purchase for which waiting was pleasurable and they therefore delayed its consumption, or (b) the type of purchase for which waiting was not pleasurable and they therefore chose to consume it immediately. We then had them rate the extent to which the purchase they made was either material or experiential in nature. We predicted that participants would tend to cite purchases that were more experiential in nature when asked to recall a purchase they chose to delay than when asked to recall a purchase they chose to consume immediately.

### Method

#### Participants

Ninety-four students at Cornell university (56 female;  $M_{\text{age}} = 20.68$ ,  $SD = 3.11$ ) participated in Study 4.

#### Procedure

Participants were randomly assigned to one of two purchase conditions. Half the participants were told there are some

purchases that people want immediately, are impatient for, can’t wait to make, and would rather make sooner than later. They were asked to generate the best exemplar of that type purchase that they had made in the past five years. The other half of the participants were told that there are some purchases people prefer to delay making, would choose have at some point in the future, and for which waiting can be exciting and part of the fun. They were then asked to list the best exemplar of *that* type of purchase they had made in the past five years.

After retrieving a specific purchase from the stated category, participants in both conditions were provided with definitions of experiential and material purchases (the same ones used in the previous studies). They were then asked to rate the extent to which their purchase was material or experiential on a 9-point scale, where 1 represented “*Much more like a material purchase*” and 9 represented “*Much more like an experiential purchase*.”

### Results

Participants tended to report purchases like iPhones and footwear in the immediate condition, while they were more likely to report purchases like vacations and tickets to shows in the delayed condition. More specifically, when asked to recall a purchase that they wanted to make immediately, participants listed purchases they rated as more material ( $M = 3.70$ ,  $SD = 2.85$ ) than when asked to recall a purchase they preferred to delay ( $M = 5.21$ ,  $SD = 3.17$ ),  $t(92) = 2.43$ ,  $p < 0.02$ , Cohen’s  $d = 0.50$ . Thus, the purchases that consumers actually choose to wait for in their everyday lives are more experiential than those they choose to consume more immediately.

It is worth noting that we conducted a conceptual replication of Study 4 ( $N = 72$ ) in which we did not have the participants themselves rate how material or experiential the purchase that they listed was, but instead had five coders who were unaware of experimental condition rate the material or experiential nature of the purchase in question. In this replication, we also had participants provide the price of the purchase that they had listed. This allowed us to rule out the possibility that our effects were driven by the cost of purchases or by the fact that participants were providing their own subjective ratings of how material or experiential the purchase was (though we believe that a rating from the participant himself or herself is more telling than coders’ ratings).

Coders were given the definitions of experiential and material purchases described above and asked to rate the purchases on the same 5-point scale used in Study 3 of Kumar et al. (2014), where 1 represented “*definitely material*” and 5 represented “*definitely experiential*.” There was strong agreement among the coders ( $\alpha > 0.9$ ), and so their ratings were averaged. The purchases reported by participants asked to recall a purchase that they wanted to make as soon as possible were rated as more material ( $M = 1.67$ ,  $SD = 1.06$ ) than those retrieved by participants asked to recall a purchase that they wanted to delay ( $M = 3.31$ ,  $SD = 1.61$ ), unequal variances  $t(69.88) = 5.21$ ,  $p < 0.0001$ , Cohen’s  $d = 1.20$ . When log-transformed cost was analyzed, the purchases participants listed

in the delayed condition (untransformed *Median* = \$800, *SD* = 2650.46) tended to be more expensive than those listed by participants in the immediate condition (untransformed *Median* = \$50, *SD* = 415.09),  $t(68) = 4.00$ ,  $p < 0.001$ . But these differences in price did not explain the difference in the material or experiential nature of the purchase recalled. When log-transformed purchase price was included as a covariate, purchase condition still significantly predicted material/experiential ratings,  $\beta = 0.72$  ( $SE = 0.20$ ),  $p < 0.001$ , but price did not,  $\beta = 0.08$  ( $SE = 0.10$ ),  $p = 0.42$ .

## General discussion

In a series of nine studies, we found that there is more utility to be gained from delaying the consumption of experiential purchases than delaying the consumption of material goods and that people act accordingly. In Studies 1a through 1c, participants who had to select which purchase, experiential or material, to consume now and which to consume later exhibited a marked preference for *having now* and *doing later*. In Study 2a, we examined a larger sample of purchases, and participants indicated their optimal consumption time in a paradigm that didn't require a forced choice. Here too, participants expressed a desire to consume experiential purchases later in the future than material purchases. In Study 2b, we found that this was true even for experiential purchases that could be consumed repeatedly. In Studies 3a through 3c, participants exhibited more patience in intertemporal choice tasks when deciding between an experience now and a superior experience later than when deciding between a possession now and a better possession later. We found in Study 3b that this effect is driven by the tendency for the pre-consumption period to provide more enjoyment for experiential purchases than it does for material purchases. Finally, in Study 4, we showed that our findings affect people's real-life purchasing decisions. When participants were asked about which purchases from their own lives they either couldn't wait for or had delayed in order to savor, their delayed purchases were significantly more experiential.

Our findings generalized across different sets of participants (college undergraduates and a broader online sample from across the U.S.) and a variety of different purchases (experiential and material purchases provided by the experimenter in Studies 1a–2b, self-generated purchases that participants were intending to make or had actually made in Studies 3a, 3b, and 4, and the same purchase construed in material or experiential terms in Study 3c). Moreover, experiential and material purchases were matched on subjective appeal in Studies 1a, 2a, and 3c, and the reported findings could not be attributed to differences in price in all of the remaining studies.

An inherent difference between experiences and possessions is that possessions are, well, kept in one's possession. This has obvious relevance to the decision to consume now or later because material purchases can be consumed now *and* later, whereas most experiences must be consumed now *or* later. This certainly contributes to the phenomenon we have explored in this paper, influencing people's real-world decisions to opt for immediate

versus delayed consumption. Indeed, part of the reason people may enjoy experiences so much, both in prospect and real-time, is that they recognize that experiences, like apple blossoms, are time-limited and therefore must be enjoyed before they are gone. With material goods, in contrast, it can be easy to take their physical longevity for granted, leading to a desire to consume immediately under the assumption that the material good will always be there to be used and enjoyed later on. That assumption is often warranted, of course. But often the hoped-for downstream consumption is diminished by deterioration, obsolescence, or habituation (Frederick & Loewenstein, 1999).

As important as the greater longevity of material possessions may be, it is not the sole reason why people are inclined to consume their material goods immediately but delay the consumption of their experiences. The results of Studies 1b, 1c, 2b and 3c make that clear. In Studies 1b and 2b, we found that participants would still rather have a material good now and an experiential purchase later even when the experience was one that could be enjoyed both now *and* later. In Study 1c, we found evidence that this preference also holds when the material good is less enduring than is typically the case. In Study 3c, we found that the same purchase elicited different temporal consumption preferences when it was thought of in material versus experiential terms.

Another purely pragmatic (and hence uninteresting) reason that people may be more inclined to delay experiential than material purchases is that it can be harder to fit many experiences into one's schedule. A concert at the local auditorium takes place at a particular time, but one can fiddle with his or her Smartphone in any nook and cranny in the day. A vacation requires time off from work; enjoying a new computer or new car does not. Although such considerations can certainly impact the timing of many purchases, they cannot account for many of our results, such as those obtained in Studies 1b, 3a, 3b, 4, and especially 3c, where participants preferred to speed up the consumption of the very same purchase (a trip to New York City) when it was thought of in terms of its material rather than its experiential nature. A trip to New York would require the same amount of advance planning in either condition, but when participants thought of it in more material terms, they expressed less of an interest in delaying it.

Beyond these pragmatic considerations, why are people more inclined to delay the consumption of experiences? We contend that it's because waiting is simply a more pleasurable state when it comes to anticipated experiential consumption than anticipated material consumption, and we obtained support for this account in Study 3b. People are often excited while waiting to consume their experiential purchases, full of pleasant reveries about what the experience will be like. The waiting itself is pleasurable, and so people get a greater hedonic benefit from their experiences when they delay consumption. Indeed, it has been shown elsewhere that waiting for an experiential purchase involves pleasant feelings of excitement, whereas waiting for a material purchase involves somewhat less pleasant feelings tinged with impatience (Kumar & Gilovich, *in press*; Kumar et al., 2014). When it comes to material goods, waiting is more often an aversive, frustrating, anxiety-inducing experience. As a result, people are more likely



to want their possessions *now*. The results of Study 3b make it clear that people often opt to delay experiential consumption because they anticipate that doing so will give them a pleasant period of anticipation. Their decision to put off experiential consumption, then, appears to be entirely rational.

This of course pushes the question a step back: Why is it that waiting to enjoy an experience tends to be more pleasurable than waiting to enjoy a material possession? We suspect that several processes contribute to this effect and although empirically evaluating the contribution of each of them is beyond the scope of this paper, delineating them can help guide future research. Kumar and Gilovich (*in press*) have recently shown that experiential purchases are talked about more than material purchases—even before the purchase has been made—and the story utility people derive from doing so is likely to contribute to the greater pleasure they get from waiting for an experiential purchase than waiting for a material purchase. Also, to the extent that people talk more about their upcoming experiential purchases, even before they have been made, they may also be more integrated—and integrated sooner—into the individual's sense of identity (Carter & Gilovich, 2012). The feeling that a given purchase is contributing to one's identity—that the self is being enhanced—is likely to be inherently pleasurable. There also tends to be more uncertainty surrounding impending experiential purchases (Jampol & Gilovich, *in preparation*; Mann & Gilovich, *in preparation*), and a degree of uncertainty can leave more room for imagination to work its magic (Wilson, Centerbar, Kermer, & Gilbert, 2005). Finally, the mental simulation of future experiences may be more fluent (Alter & Oppenheimer, 2009) or abstract (Trope & Liberman, 2003), either of which would be likely to make the simulation more pleasurable.

As important as it is to further elucidate the processes responsible for the findings we have discussed here, so too is studying these phenomena with a focus on actual choice rather than expressed preference. Like much research in the judgment and decision making and consumer behavior literatures, the participants in our studies were not confronted with actual choices but reported what decisions they would make under the conditions stipulated. A reliance on hypothetical decisions can be risky when the actual choice brings to bear elements that are weak or absent when making a hypothetical decision. It can be easy to *say*, for example, that one would rather eat a carrot than a cookie; harder to actually choose the carrot when confronted with the aroma of butter and warm chocolate. We don't believe these differences were pronounced in the studies we report here, and what we observed in participants' hypothetical choices was validated by reports of their actual behavior. In Study 4, participants reported actual occasions in which they yearned to make and consume a purchase right away or preferred to put off consumption until later and we found that the former tended to involve material goods and the latter to involve experiences.

Future research might take this a step further and have participants make actual consumption decisions, both in controlled laboratory settings and in real-world consumer environments. Budget constraints make it a challenge to find suitable, non-trivial

experiences and possessions for participants to consume in the lab, but previous research shows that it can be done (Carter & Gilovich, 2010; Nicolao et al., 2009; Thompson, Hamilton, & Rust, 2005). One possibility would be to select two items that can be construed in either material or experiential terms—a boxed set of music and a special edition DVD, for example, or a package of Silly String and a Buddha Board—and, in a counterbalanced design, have participants focus on one's material nature and on the other's experiential nature. When given a choice to receive one immediately and the other after a delay, would participants elect to receive the material item right away but defer the experience? Another approach would be to give participants gift cards to commercial establishments where they could make either experiential or material purchases (e.g., a store at the mall and the movie theater). Researchers could then track the order in which these gift cards were used.

It is worth noting that Study 3c is first experiment in the literature on the hedonics of material and experiential consumption to frame a typically experiential purchase (a trip to New York City) in material and experiential terms and examine its effect on participants' preferences. Previous studies (Carter & Gilovich, 2010, 2012; Rosenzweig & Gilovich, 2012) have similarly taken advantage of the fuzzy boundary between experiential and material purchases by leading participants to construe prototypically material purchases (a CD box set, a 3D television) in material or experiential terms. Further work on the framing of purchases in material or experiential terms is likely to yield additional insights. With this in mind, it is of particular interest that although the overall pattern of results was the same in Studies 3a and 3b as it was in Study 3c, the descriptive statistics in these studies differed in a potentially meaningful way. Participants in Studies 3a and 3b were given explicit definitions of either material or experiential purchases and asked to think of an example of that type of purchase. In that case, participants in the material condition were not inclined to delay consumption, but those in the experiential condition were. In contrast, in Study 3c, in which a prototypically experiential purchase (a vacation) was framed in material or experiential terms, participants again demonstrated a preference to delay the purchase more if it was construed experientially. But they also indicated that they'd want to delay consumption of the purchase if it was construed materially as well—just not as much. This may be because of the inherently experiential nature of the purchase in question. Would the opposite pattern of results be obtained if participants were led to think of a prototypical material good (e.g., a television, a bicycle) in material or experiential terms?

Finally, it is worth considering whether the strength of these effects varies with whether the purchase had been paid for in advance or if the day of financial reckoning had yet to come. We suspect that the benefits derived from the anticipation of experiential purchases are even greater if they are paid for beforehand, but consumed later. Dunn and Norton (2013) have argued that people tend to get more enjoyment from pre-paid consumption because it makes the consumption feel free. This could apply to anticipation as well: perhaps *waiting* to consume might also feel better if one has already paid for an experience. This allows one to experience the joys of looking forward to an

experiential purchase without the pain associated with still having to pay for it. When consumption finally occurs, it is possible to feel the satisfaction associated with the experience at what feels like zero cost (Shafir & Thaler, 2006). Paying in advance is likely to have benefits for both material and experiential purchases, but it may be that these benefits are even greater when it comes to experiential consumption. When people have paid in advance, they can fully enjoy waiting for their favorite teams' games or their highly-anticipated fun in the sun, and they're likely to want to extend that wait for a considerable period of time. Indeed, the findings we have reported here provide some understanding of why we're often so ready and willing to select the "expedited shipping" button when ordering clothes and electronic gadgets, but take some delight in making our restaurant reservations and buying concert or theater tickets well in advance.

### Acknowledgments

This research was supported by a grant from the John Templeton Foundation through the Greater Good Science Center at the University of California, Berkeley awarded to Thomas Gilovich, a gift to Cornell University from Lisa and Dan Zelson, and a National Science Foundation Graduate Research Fellowship awarded to Amit Kumar.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at <http://dx.doi.org/10.1016/j.jcps.2015.06.013>.

### References

- Alter, A. L., & Oppenheimer, D. M. (2009). Uniting the tribes of fluency to form a metacognitive nation. *Personality and Social Psychology Review, 13*, 219–235.
- Capriello, P. A., & Reis, H. T. (2013). To do or to have, or to share? Valuing experiences over material possessions depends on the involvement of others. *Journal of Personality and Social Psychology, 104*(2), 199–215.
- Carter, T. J., & Gilovich, T. (2010). The relative relativity of experiential and material purchases. *Journal of Personality and Social Psychology, 98*, 146–159.
- Carter, T. J., & Gilovich, T. (2012). I am what I do, not what I have: The centrality of experiential purchases to the self-concept. *Journal of Personality and Social Psychology, 102*(6), 1304–1317.
- Carter, T. J., & Gilovich, T. (2014). Getting the most for the money: The hedonic return on experiential and material purchases. In M. Tatzel (Ed.), *Consumption and well-being in the material world* (pp. 49–62). Netherlands: Springer.
- Duckworth, A. L., & Seligman, M. E. P. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science, 16*(12), 939–944.
- Dunn, E. W., Gilbert, D. T., & Wilson, T. D. (2011). If money doesn't make you happy, then you probably aren't spending it right. *Journal of Consumer Psychology, 21*(2), 115–125.
- Dunn, E. W., & Norton, M. I. (2013). *Happy money: The science of smarter spending*. New York: Simon and Schuster.
- Frederick, S., & Loewenstein, G. (1999). Hedonic adaptation. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 302–329). New York: Russell Sage Foundation.
- Gilovich, T., & Kumar, A. (2015). We'll always have Paris: The hedonic payoff from experiential and material investments. In M. Zanna, & J. Olson (Eds.), *Advances in Experimental Social Psychology, Vol. 51*, New York: Elsevier.
- Gilovich, T., Kumar, A., & Jampol, L. (2015a). A wonderful life: Experiential consumption and the pursuit of happiness. *Journal of Consumer Psychology, 25*(1), 152–165.
- Gilovich, T., Kumar, A., & Jampol, L. (2015b). The beach, the bikini, and the best buy: Replies to Dunn and Weidman, and to Schmitt, Brakus, and Zarantonello. *Journal of Consumer Psychology, 25*(1), 179–184.
- Hoch, S. J., & Loewenstein, G. (1991). Time-inconsistent preference and consumer self-control. *Journal of Consumer Research, 17*, 492–507.
- Houston, M. B., Bettencourt, L. A., & Wenger, S. (1988). The relationship between waiting in a service queue and evaluations of service quality: A field theory perspective. *Psychology and Marketing, 15*, 735–753.
- Howell, R. T., & Hill, G. (2009). The mediators of experiential purchases: Determining the impact of psychological needs satisfaction and social comparison. *The Journal of Positive Psychology, 4*, 511–522.
- Jampol, L., & Gilovich, T. (2015). *Surprise! Unexpected results are more troubling for material purchases than for experiential purchases*. (Manuscript in preparation).
- Kumar, A., & Gilovich, T. (2015). Some "thing" to talk about? Differential story utility from experiential and material purchases. *Personality and Social Psychology Bulletin* (in press).
- Kumar, A., Killingsworth, M. A., & Gilovich, T. (2014). Waiting for Merlot: Anticipatory consumption of experiential and material purchases. *Psychological Science, 25*(10), 1924–1931.
- Kumar, A., Mann, T. C., & Gilovich, T. (2015). *The aptly buried "I" in experience: experiential purchases foster social connection*. Manuscript in Preparation.
- Loewenstein, G. (1987). Anticipation and the valuation of delayed consumption. *The Economic Journal, 97*(387), 666–684.
- Loewenstein, G., & Prelec, D. (1992). Anomalies in intertemporal choice: Evidence and an interpretation. *Quarterly Journal of Economics, 107*(2), 573–597.
- Mann, T. C., & Gilovich, T. (2015). *The asymmetric connection between money and material vs. experiential purchases*. (Manuscript in preparation).
- McClure, S. M., Laibson, D. I., Loewenstein, G., & Cohen, J. D. (2004). Separate neural systems value immediate and delayed monetary rewards. *Science, 306*(5695), 503–507.
- Mischel, W. (1974). Processes in delay of gratification. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology, Vol. 7*. (pp. 249–292). New York: Academic Press.
- Nawijn, J., Marchand, M. A., Veenhoven, R., & Vingerhoets, A. J. (2010). Vacationers happier, but most not happier after a holiday. *Applied Research in Quality of Life, 5*(1), 35–47.
- Nicolao, L., Irwin, J. R., & Goodman, J. K. (2009). Happiness for sale: Do experiential purchases make consumers happier than material purchases? *Journal of Consumer Research, 36*(2), 188–198.
- Nowlis, S. M., Mandel, N., & McCabe, D. B. (2004). The effect of a delay between choice and consumption on consumption enjoyment. *Journal of Consumer Research, 31*, 502–510.
- Rosenzweig, E., & Gilovich, T. (2012). Buyer's remorse or missed opportunity: Differential regrets for material and experiential purchases. *Journal of Personality and Social Psychology, 102*(2), 215–223.
- Shafir, E., & Thaler, R. H. (2006). Invest now, drink later, spend never: On the mental accounting of delayed consumption. *Journal of Economic Psychology, 27*, 694–712.
- Taylor, S. (1994). Waiting for service: The relationship between delays and evaluations of service. *Journal of Marketing, 58*, 56–69.
- Thompson, D. V., Hamilton, R. W., & Rust, R. T. (2005). Feature fatigue: When product capabilities become too much of a good thing. *Journal of Marketing Research, 42*(4), 431–442.
- 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*(6), 1193–1202.
- Wilson, T. D., Centerbar, D. B., Kermer, D. A., & Gilbert, D. T. (2005). The pleasures of uncertainty: Prolonging positive moods in ways people do not anticipate. *Journal of Personality and Social Psychology, 88*(1), 5–21.