

Research Dialogue

# If money doesn't make you happy, then you probably aren't spending it right

Elizabeth W. Dunn<sup>a,\*</sup>, Daniel T. Gilbert<sup>b,1</sup>, Timothy D. Wilson<sup>c,2</sup>

<sup>a</sup> University of British Columbia, Douglas Kenny Building, Room 2013, 2136 West Mall, Vancouver, British Columbia, Canada V6T 1Z4

<sup>b</sup> Department of Psychology, Harvard University, William James Hall, Cambridge, MA 02138, USA

<sup>c</sup> Department of Psychology, University of Virginia, P.O. Box 400400, Charlottesville, VA 22904-4400, USA

Received 16 July 2010

Available online 21 March 2011

## Abstract

The relationship between money and happiness is surprisingly weak, which may stem in part from the way people spend it. Drawing on empirical research, we propose eight principles designed to help consumers get more happiness for their money. Specifically, we suggest that consumers should (1) buy more experiences and fewer material goods; (2) use their money to benefit others rather than themselves; (3) buy many small pleasures rather than fewer large ones; (4) eschew extended warranties and other forms of overpriced insurance; (5) delay consumption; (6) consider how peripheral features of their purchases may affect their day-to-day lives; (7) beware of comparison shopping; and (8) pay close attention to the happiness of others.

© 2011 Society for Consumer Psychology. Published by Elsevier Inc. All rights reserved.

Scientists have studied the relationship between money and happiness for decades and their conclusion is clear: Money buys happiness, but it buys less than most people think (Aknin, Norton, & Dunn, 2009; Diener & Biswas-Diener, 2002; Frey & Stutzer, 2000). The correlation between income and happiness is positive but modest, and this fact should puzzle us more than it does. After all, money allows people to do what they please, so shouldn't they be pleased when they spend it? Why don't a whole lot more money make us a whole lot more happy? One answer to this question is that the things that bring happiness simply aren't for sale. This sentiment is lovely, popular, and almost certainly wrong. Money allows people to live longer and healthier lives, to buffer themselves against worry and harm, to have leisure time to spend with friends and family, and to control the nature of their daily activities—all of which are sources of happiness (Smith, Langa, Kabeto, & Ubel, 2005). Wealthy people don't just have better toys; they have better

nutrition and better medical care, more free time and more meaningful labor—more of just about every ingredient in the recipe for a happy life. And yet, they aren't that much happier than those who have less. If money can buy happiness, then why doesn't it?

Because people don't spend it right. Most people don't know the basic scientific facts about happiness—about what brings it and what sustains it—and so they don't know how to use their money to acquire it. It is not surprising when wealthy people who know nothing about wine end up with cellars that aren't that much better stocked than their neighbors', and it should not be surprising when wealthy people who know nothing about happiness end up with lives that aren't that much happier than anyone else's. Money is an opportunity for happiness, but it is an opportunity that people routinely squander because the things they think will make them happy often don't.

When people make predictions about the hedonic consequences of future events they are said to be making *affective forecasts*, and a sizeable literature shows that these forecasts are often wrong (for reviews see Gilbert & Wilson, 2007, 2009; Wilson & Gilbert, 2003). Errors in affective forecasting can be traced to two basic sources. First, people's mental simulations of future events are almost always imperfect. For example,

\* Corresponding author.

E-mail address: [edunn@psych.ubc.ca](mailto:edunn@psych.ubc.ca) (E.W. Dunn).

<sup>1</sup> Fax: +1 617 495 3892.

<sup>2</sup> Fax: +1 434 982 4766.

people don't anticipate the ease with which they will adapt to positive and negative events, they don't fully understand the factors that speed or slow that adaptation, and they are insufficiently sensitive to the fact that mental simulations lack important details. Second, context exerts strong effects on affective forecasts and on affective experiences, but people often fail to realize that these two contexts are not the same; that is, the context in which they are making their forecasts is not the context in which they will be having their experience. These two sources of error cause people to mispredict what will make them happy, how happy it will make them, and how long that happiness will last.

In this article, we will use insights gleaned from the affective forecasting literature to explain why people often spend money in ways that fail to maximize their happiness, and we will offer eight principles that are meant to remedy that.

**Principle 1: Buy experiences instead of things**

“Go out and buy yourself something nice.” That’s the consoling advice we often give to friends who have just gotten bad news from their employer, their doctor, or their soon-to-be-ex spouse. Although the advice is well-meant, research suggests that people are often happier when they spend their money on experiences rather than things.

Van Boven and Gilovich (2003) defined experiential purchases as those “made with the primary intention of acquiring a life experience: an event or series of events that one lives through,” while defining *material purchases* as those “made with the primary intention of acquiring a material good: a tangible object that is kept in one’s possession” (p. 1194). Although there is a “fuzzy boundary” between these two types of purchases, with many purchases (e.g., a new car) falling somewhere in the hazy middle, consumers are consistently able to describe past purchases that clearly fit these definitions, both in their own minds and the minds of coders trained in this distinction (Carter & Gilovich, 2010, p. 156). In one study, these definitions were presented to a nationwide sample of over a thousand Americans, who were asked to think of a material and an experiential purchase they had made with the intention of increasing their own happiness. Asked which of the two purchases made them happier, fully 57% of respondents reported that they had derived greater happiness from their experiential purchase, while only 34% reported greater happiness from their material purchase. Similar results emerged using a between-subjects design in which participants were randomly assigned to reflect on either a material or experiential purchase they had made; individuals experienced elevated mood when contemplating a past experiential purchase (relative to those contemplating a past material purchase), suggesting that experiential purchases produce more lasting hedonic benefits.

There is no doubt that some experiences are better than others: people report being happier when they are making love or listening to music, for example, than when they are working or commuting. But when it comes to happiness, the nature of the activity in which people are engaged seems to matter less than

the fact that they are engaged in it (Csikszentmihalyi, 1999). Fig. 1 shows the results of a large-scale experience-sampling study in which people reported their current happiness, their current activity, and the current focus of their thoughts (Killingsworth & Gilbert, 2010). The upper half of the figure shows the average amount of happiness that people reported while doing their daily activities, and although the difference between the most and least pleasant activities is real and significant, it is also surprisingly small. In contrast, the bottom half of Fig. 1 shows the average amount of happiness that people reported when their minds were focused on their current activity, and also when their minds were wandering to pleasant, neutral, or unpleasant topics. As the figure shows, people were maximally happy when they were thinking about what they were doing, and time-lag analyses revealed that mind-wandering was a cause, and not merely an effect, of diminished happiness. A wandering mind is an unhappy mind, and one of the benefits of experiences is that they keep us focused on the here and now.

Experiences are good; but why are they better than things? One reason is that we adapt to things so quickly. After devoting days to selecting the perfect hardwood floor to install in a new

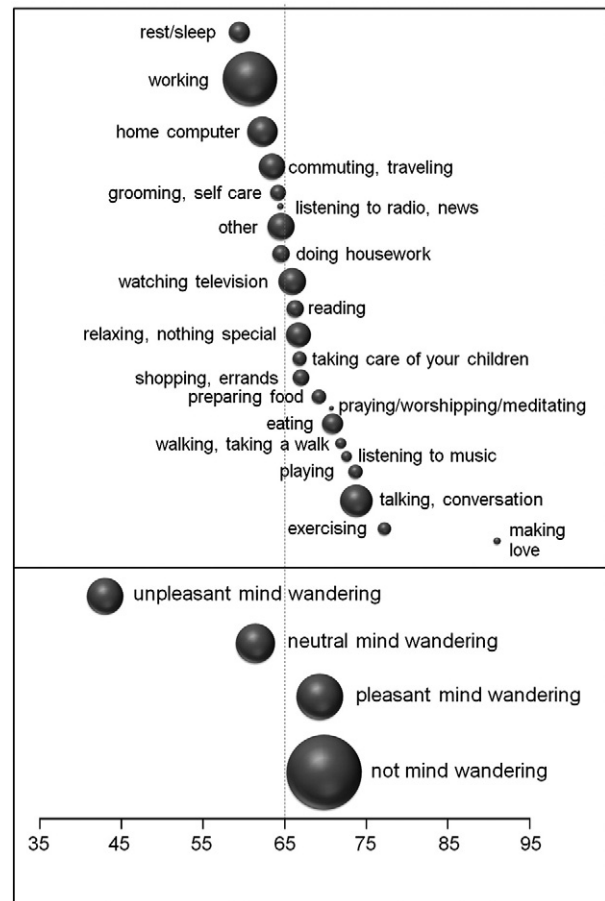


Fig. 1. From Killingsworth & Gilbert (2010). Upper half shows mean centered happiness reported by people who were doing each activity. Bottom half shows mean centered happiness reported by people whose minds were wandering to unpleasant topics, or neutral topics, pleasant topics, or whose minds where not mind wandering. Bubble size indicates the number of reports.

condo, homebuyers find their once beloved Brazilian cherry floors quickly become nothing more than the unnoticed ground beneath their feet. In contrast, their memory of seeing a baby cheetah at dawn on an African safari continues to provide delight. Testing this idea in an experimental context, Nicolao, Irwin, and Goodman (2009) randomly assigned participants to spend several dollars on either a material or experiential purchase, tracking participants' happiness with their purchase over a 2 week period. Over time, participants exhibited slower adaptation to experiential purchases than to material purchases.<sup>3</sup> One reason why this happens is that people adapt most quickly to that which doesn't change. Whereas cherry floorboards generally have the same size, shape, and color on the last day of the year as they did on the first, each session of a year-long cooking class is different from the one before.

Another reason why people seem to get more happiness from experiences than things is that they anticipate and remember the former more often than the latter. Surveying a sample of Cornell students, Van Boven and Gilovich (2003) found that 83% reported "mentally revisiting" their experiential purchases more frequently than their material purchases (p. 1199). Things bring us happiness when we use them, but not so much when we merely think about them. Experiences bring happiness in both cases—and some (e.g., climbing a mountain or making love to a new partner) may even be better contemplated than consummated (Loewenstein, 1999). We are more likely to mentally revisit our experiences than our things in part because our experiences are more centrally connected to our identities. In a survey of 76 adults, Van Boven and Gilovich (2003) found that the vast majority of adults viewed their experiential purchases as more self-defining than their material purchases. What's more, because experiences often seem as unique as the people who are having them, it can be difficult to compare the butt-numbing bicycle ride we decided to take through the Canadian Arctic to the sunny Sonoma wine tour we could have taken instead—thereby saving us from troubling ruminations about the road less travelled (Carter & Gilovich, 2010). As such, it is possible to reduce our proclivity for making these kinds of distressing comparisons simply by thinking of our purchases in experiential terms; if we view a new car not as something we *have*, but as something that expands what we can *do*, then discovering that a shinier, faster, less expensive model has just come out may be a little less frustrating (Carter & Gilovich, 2010). A final reason why experiences make us happier than things is that experiences are more likely to be shared with other people, and other people—as we are now about to see—our greatest source of happiness.

## Principle 2: Help others instead of yourself

Human beings are the most social animal on our planet. Only three other animals (termites, eusocial insects, and naked mole

rats) construct social networks as complex as ours, and we are the only one whose complex social networks include unrelated individuals. Many scientists believe that this "hypersociality" is what caused our brains to triple in size in just 2 million years (Dunbar & Shultz, 2007). Given how deeply and profoundly social we are, it isn't any wonder that the quality of our social relationships is a strong determinant of our happiness.

Because of this, almost anything we do to improve our connections with others tends to improve our happiness as well—and that includes spending money. Dunn, Aknin, and Norton (2008) asked a nationally representative sample of Americans to rate their happiness and to report how much money they spent in a typical month on (1) bills and expenses, (2) gifts for themselves, (3) gifts for others, and (4) donations to charity. The first two categories were summed to create a personal spending composite, and the latter two categories were summed to create a prosocial spending composite. Although personal spending was unrelated to happiness, people who devoted more money to prosocial spending were happier, even after controlling for their income. An experiment revealed a similar pattern of results (Dunn, Aknin, & Norton, 2008). Researchers approached individuals on the University of British Columbia (UBC) campus, handed them a \$5 or \$20 bill, and then randomly assigned them to spend the money on themselves or on others by the end of the day. When participants were contacted that evening, individuals who had been assigned to spend their windfall on others were happier than those who had been assigned to spend the money on themselves. The benefits of prosocial spending appear to be cross-cultural. Over 600 students attending universities in Canada and in the East African nation of Uganda were randomly assigned to reflect on a time they had spent money on themselves or on others (Aknin et al., 2010). Participants felt significantly happier when they reflected on a time they had spent money on others, and this effect emerged consistently across these vastly different cultural contexts—even though the specific ways in which participants spent their money varied dramatically between cultures.<sup>4</sup> The emotional rewards of prosocial spending are also detectable at the neural level. Participants in an MRI were given the opportunity to donate money to a local food bank. Choosing to give money away—or even being forced to do so—led to activation in brain areas typically associated with receiving rewards (Harbaugh, Mayr, & Burghart, 2007).

Why does prosocial spending produce such strong and consistent benefits for well-being? Diener and Seligman (2002) argue that strong social relationships are universally critical for happiness, and prosocial spending has a surprisingly powerful impact on social relationships. Research shows that receiving a gift from a romantic partner has a significant impact on college students' feelings about the likelihood that the relationship will continue over the long-term and lead to marriage (Dunn, Huntsinger, Lun, & Sinclair, 2008). Spending money on a friend or

<sup>3</sup> Of course, if people adapt more slowly to experiential than material purchases, then they may also experience more lasting distress from a terrible experiential (versus material purchase). Indeed, Nicolao et al. (2009) found suggestive evidence that experience purchases that turn out badly may produce somewhat more lasting unhappiness than material purchases that turn out badly.

<sup>4</sup> Providing evidence that the benefits of prosocial spending emerge regardless of whether purchases are material or experiential, the effect of prosocial spending remained significant even when controlling for the extent to which the purchase was material versus experiential.

romantic partner also provides an opportunity for positive self-presentation, which has been shown to produce benefits for mood (Dunn, Biesanz, Human, & Finn, 2007). Giving to charity may facilitate such positive self-presentation as well, and may even facilitate the development of social relationships, considering that most charitable donations are made by individuals who are directly connected to the beneficiaries (e.g., churches, arts organizations; Schervish & Szanto, 2006).

Although the benefits of prosocial spending are robust across cultures and methodologies, they are invisible to many people. Surveying UBC students, Dunn et al. (2008) found that a significant majority made an affective forecasting error: they thought that spending money on themselves would make them happier than spending on others. Indeed, simply thinking about money has been shown to undermine prosocial impulses, making people less likely to donate to charity or help acquaintances (Vohs, Meade, & Goode, 2006). Although money can and should promote happiness, the mere thought of money may undermine its ability to do so.

### **Principle 3: Buy many small pleasures instead of few big ones**

Adaptation is a little bit like death: we fear it, fight it, and sometimes forestall it, but in the end, we always lose. And like death, there may be benefits to accepting its inevitability. If we inevitably adapt to the greatest delights that money can buy, than it may be better to indulge in a variety of frequent, small pleasures—double lattes, uptown pedicures, and high thread-count socks—rather than pouring money into large purchases, such as sports cars, dream vacations, and front-row concert tickets. This is not to say that there's anything *wrong* with large purchases. But as long as money is limited by its failure to grow on trees, we may be better off devoting our finite financial resources to purchasing frequent doses of lovely things rather than infrequent doses of lovelier things. Indeed, across many different domains, happiness is more strongly associated with the frequency than the intensity of people's positive affective experiences (Diener, Sandvik, & Pavot, 1991). For example, no one finds it surprising that people who have sex are happier than people who don't (Blanchflower & Oswald, 2004), but some do find it surprising that the optimal number of sexual partners to have in a 12-month period is one. Why would people who have one partner be happier than people who have many? One reason is that multiple partners are occasionally thrilling, but regular partners are regularly enjoyable. A bi-weekly ride on a merry-go-round may be better than an annual ride on a roller coaster.

One reason why small frequent pleasures beat infrequent large ones is that we are less likely to adapt to the former. The more easily people can understand and explain an event, the quicker they adapt to it (Wilson & Gilbert, 2008), and thus anything that makes a pleasurable event more difficult to understand and explain will delay adaptation. These variables include novelty (we've never experienced the event before), surprise (we didn't expect it to happen), uncertainty (we're not entirely sure what the event is), and variability (the event keeps

changing). Each of these variables makes an event harder to understand and as a result we pay more attention to it and adapt more slowly. And, small pleasures are more likely to satisfy these conditions than are large ones. Having a beer after work with friends, for example, is never exactly the same as it was before; this week the bar had a new India Pale Ale from Oregon on tap, and Sam brought along his new friend Kate who told a funny story about dachshunds. If we buy an expensive dining room table, on the other hand, it's pretty much the same table today as it was last week. Because frequent small pleasures are different each time they occur, they forestall adaptation.

Another advantage of small pleasures is that they are less susceptible to diminishing marginal utility, which refers to the fact that each unit increase in the magnitude of a pleasure increases the hedonic impact of that pleasure by a smaller amount than did the previous unit increase. Eating a 12 oz cookie is not twice as pleasurable as eating a 6 oz cookie because the first X% of a cookie's weight accounts for more than X% of its hedonic impact. People can therefore offset diminishing marginal utility by "breaking up" or "segregating" a pleasurable experience such as cookie-eating into a series of briefer experiences (Kahneman, 1999; Kahneman & Tversky, 1979; Mellers, 2000; Thaler, 1999). Eating two 6 oz cookies on different days may be better than eating a 12 oz cookie at a single sitting. Research shows that people have some understanding of this principle, which is why they prefer to win a \$25 lottery and then later to win a \$50 lottery than to win a single \$75 lottery (Thaler, 1985, 1999; Thaler & Johnson, 1990). The same is true for non-monetary experiences such as eating chocolate, getting good grades, and exchanging social pleasantries (Linville & Fischer, 1991; Morewedge, Gilbert, Keysar, Berkovitz, & Wilson, 2007).

But why does segregation work? One reason is that it introduces a temporal discontinuity between experiences and thus ameliorates the effects of adaptation. Nelson and Meyvis (2008) asked participants to sit in a chair equipped with a massage cushion. Half the participants experienced a continuous 180 s massage, while the others experienced a massage of 80 s, followed by a 20 s break, followed by another 80 s massage. Compared to participants who experienced one longer massage, those who experienced two briefer massages (interrupted by a break) found the overall experience more pleasurable and were willing to pay about twice as much to purchase the massage cushion. Before the massage began, however, the majority of participants made affective forecasting errors: they predicted that they would prefer receiving one continuous massage rather than two shorter massages with a break in the middle. This study highlights the surprising speed with which adaptation can occur; after just 80 s, participants had presumably acclimated to the pleasure of the massage, which was renewed when it was stopped and then begun again. Thus, by treating themselves to frequent, fleeting pleasures (rather than more sporadic but prolonged experiences), consumers can capitalize on the burst of delight that accompanies the first minute of massage, the first bite of chocolate cake, and the first sight of the sea.

The happiness provided by frequent small pleasures helps make sense of the modest correlation between money and

happiness. In a study of Belgian adults, individuals who had a strong capacity to savor the mundane joys of daily life were happier than those who did not (Quoidbach, Dunn, Petrides, & Mikolajczak, 2010). This capacity to savor, however, was reduced among wealthy individuals. Indeed, the positive impact of wealth on happiness was significantly undercut by the negative impact of wealth on savoring. Quoidbach et al. (2010) argue that wealth promises access to peak experiences, which in turn undermine the ability to savor small pleasures (see also Parducci, 1995). Indeed, when participants are exposed to photographs of money (thereby priming the construct of wealth) they spend significantly less time eating a piece of chocolate and exhibit less pleasure while doing it. In short, not only are the small pleasures of daily life an important source of happiness, but unfettered access to peak experiences may actually be counterproductive.

#### Principle 4: Buy less insurance

If the bad news is that we adapt to good things, the good news is that we adapt to bad things as well. Research on how well people cope with a wide variety of traumas and tragedies—from heart attacks to terrorist attacks—suggests that people are not the emotionally fragile creatures they often imagine themselves to be (Bonanno, 2004; Ubel, 2006). Just as the physical immune system wards off maladies, the “psychological immune system” wards off malaise by marshalling the remarkable human capacities of reconstrual and rationalization (Gilbert, 2006). But research suggests that people don’t know much about their own psychological immune systems (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998), and as a result they overestimate their vulnerability to negative affect.

Businesses often trade on that ignorance by offering various forms of insurance against unhappiness, from extended warranties to generous return policies. With price tags reaching as high as 50% of a product’s original cost, extended warranties sold by retailers and manufacturers provide huge benefits to the seller and are widely acknowledged to be “bad bets” for the buyer (Bernier, 2004; Chen, Kalra, & Sun, 2009). Why are consumers willing to pay so much for these overpriced warranties? Owning something instantly makes it more delightful (Kahneman, Knetsch, & Thaler, 1990; Morewedge, Shu, Gilbert, & Wilson, 2009), and as such, a plasma TV that has just become *my* plasma TV may seem worthy of protection. The prospect of loss is highly aversive to people, who expect the pain of losing \$5 to exceed the pleasure of gaining \$5 (Kahneman & Tversky, 1979). But research shows that this expectation is wrong. Kermer et al. (2006) gave participants \$5, and then flipped a coin. Participants were told that if the coin came up one way they would get an additional \$5, and if it came up the other way they would lose \$3 of their initial endowment. Although participants expected to be more emotionally affected by the loss of \$3 than by the gain of \$5, they were not. Participants who lost \$3 out of their initial \$5 endowment were significantly less upset than they expected because they instantly framed the event as a \$2 gain. Research like this suggests that buying expensive extended warranties to guard

against the loss of consumer goods may be unnecessary emotional protection.

The psychological immune system also provides the key to understanding a phrase uttered by embattled politicians, reality show rejects, and Olympic athletes who just missed the podium: “I have no regrets.” When former British Prime Minister Tony Blair invoked this familiar refrain in reference to getting his country involved in the divisive Iraq War, a heckler yelled, “What, no regrets? Come on!” (The Independent, 2010). Like the heckler, Blair himself might have found it hard to believe years ago that he would not regret his actions, had he been able to preview how the future would unfold. The ability to “spin” events in a positive direction after they have occurred—thereby dodging regret—is not limited to politicians. Recent research demonstrates that ordinary people are remarkably adept at reconstruing events in order to avoid self-blame and the regret that accompanies it, a capacity that these same individuals may fail to appreciate in prospect. When passengers on a train were asked to estimate how much regret they would feel have felt if they had missed the train by 5 minutes or 1 minute, they estimated that they would have felt more regret in the latter case than the former. And yet, passengers who had actually missed their trains by 1 and 5 min reported remarkably little regret, and equally little regret regardless of whether they had missed the train by 5 min or by 1 (Gilbert, Morewedge, Risen, and Wilson, 2004). What explains this discrepancy? When passengers who had made their trains were asked to imagine having missed them by a minute, they imagined blaming themselves for the near miss (e.g., “I would not have missed the train if only I’d woken up earlier and gotten out of the house faster”). Passengers who had actually missed their trains, however, tended to blame anyone or anything but themselves (e.g., “I would have missed the train if only all the gates were open instead of just one”). Because people are highly skilled at dodging self-blame, they experience less regret than they predict.

Consumers, of course, often buy with future regret in mind. Although they may save a lot of money by purchasing goods through websites such as eBay and Craigslist, they turn to traditional retailers in part because they believe that these stores are better equipped to remedy any unhappiness they may experience after the purchase. Little do they know that their brains have already come equipped with an unhappiness-reducing mechanism that they can use for free. After purchasing a Roomba vacuuming robot on Craigslist that turns out not to pick up dirt, the psychological immune system enables us to see what a fabulous dog toy we now own and to appreciate how dirty floors help us “get back to nature.”

Unfortunately, this handy mental mechanism may actually be short-circuited by generous return policies. Gilbert and Ebert (2002) offered participants the choice between prints of paintings by artists ranging from Van Gogh to El Greco. After participants made their selection, half of them were presented with the equivalent of a generous store return policy: they were told, “If you change your mind about which poster you want to take home before you leave today or even any time in the next month, you can just let me know and we will exchange it for you.” The remaining participants were informed

that no such exchange would be possible and that their choice was final. Participants who knew they were stuck with the poster they had chosen responded by inflating their appreciation of it, seeing the poster in a more positive light than they had initially. In contrast, participants who knew they could exchange their poster anytime were deprived of this emotional benefit of commitment and found the poster no more attractive than they had before selecting it (see also Frey, 1981; Frey, Kumpf, Irle, & Gniech, 1984; Girard, 1968; Jecker, 1964). Interestingly, however, participants failed to predict this difference and thought they would be equally happy whether they could exchange their poster or not. People seek extended warranties and generous return policies in order to preclude the possibility of future regret, but research suggests that the warranties may be unnecessary for happiness and the return policies may actually undermine it.

### Principle 5: Pay now and consume later

In 1949, a businessman named Frank McNamara found himself without any cash after dining at a New York City restaurant. The mortification he experienced as his wife paid the bill provided the impetus for him to create one of the earliest credit cards, establishing the foundation for today's multi-billion dollar credit card industry (Gerson & Woolsey, 2009). Just as credit card companies allow customers to "consume now and pay later," so do merchants whose offers include phrases such as "No money down!" and "Don't pay for six months!" Meanwhile, consumers are provided with the chance to satisfy their desires faster than ever, instantly downloading music and movies through iTunes or obtaining same-day delivery of everything from books to jewelry through Amazon.

This shift toward immediate enjoyment and delayed payment represents a fundamental change in our economic system that undermines well-being in two important ways (Thaler & Sunstein, 2008). The first and most obvious is that the "consume now and pay later" heuristic leads people to engage in shortsighted behavior—to rack up debts, to save little for retirement, etc. In the end, the piper must be paid, and when that happens, lives are often ruined. Vast literatures on delay of gratification, intertemporal choice, and delay discounting show that when people are impatient, they end up less well off (Ainslie & Haslam, 1992; Berns, Laibson, & Loewenstein, 2007; Frederick, Loewenstein, & O'Donoghue, 2003; McClure, Laibson, Loewenstein, & Cohen, 2004; Mischel, Shoda, & Rodriguez, 1989; Soman et al., 2005).

But there is a second reason why "consume now, pay later" is a bad idea: it eliminates anticipation, and anticipation is a source of "free" happiness. The person who buys a cookie and eats it right away may get X units of pleasure from it, but the person who saves the cookie until later gets X units of pleasure when it is eventually eaten plus all the additional pleasure of looking forward to the event. Research shows that people can reap substantial enjoyment from anticipating an upcoming event even if the event itself is not entirely enjoyable. Examining three different vacations ranging from a trip to Europe to a bicycle trip through California, Mitchell et al. (1997) found that people

viewed the vacation in a more positive light before the experience than during the experience, suggesting that anticipation may sometimes provide more pleasure than consumption simply because it is unsullied by reality. Not surprisingly, then, people who devote time to anticipating enjoyable experiences report being happier in general (Bryant, 2003).

Of course, memory can be a powerful source of happiness too, and if anticipation and reminiscence were equal partners in promoting pleasure then there would be no reason to delay consumption because each day of looking forward could simply be traded for a day of looking backward. There is reason to believe, however, that anticipation is the Batman to the Robin of reminiscence. Research shows that thinking about future events triggers stronger emotions than thinking about the same events in the past (Van Boven & Ashworth, 2007; Caruso, Gilbert, & Wilson, 2008). For example, students felt happier while anticipating an upcoming vacation than while reminiscing about the same vacation (Van Boven & Ashworth, 2007) and bought a more expensive thank-you gift for someone who was going to do them a favor than for someone who had already done them a favor (Caruso et al., 2008). Just as positive events that lie in the future seem better than the same events in the past, negative events that lie in the future appear worse than those in the past. Students wanted more money for a mundane job they would do in the future than for one they had already done in the past, and mock-jurors awarded more money to an accident victim who was going to suffer for a year than who had already suffered for a year (Caruso et al., 2008).

Do people recognize the emotional benefits of delaying pleasurable consumption? In some cases they do. Faced with the choice of when to kiss their favorite celebrity, students in one study were willing to pay more for the kiss to take place 3 days later rather than 3 hours later (Loewenstein, 1987). Why, then, does consumer behavior so often reflect an apparent drive for immediate consumption? We suggest that while the future may be more emotionally compelling than the past, nothing is as powerful as the present. Indeed, people exhibit future anhedonia, believing that their emotional responses will be less intense in the future than in the present (Kassam, Gilbert, Boston, & Wilson, 2008). For example, participants believed that they would experience more pleasure on the day they received a gift if it were delivered today rather than 3 months later. If future feelings really were less intense than present feelings, then one could maximize benefits by consuming in the present (when the pleasure of consumption is at its zenith) and paying in the future (when the pain of paying is at its nadir). Of course, future feelings are not less intense than current ones, and thus future anhedonia is an affective forecasting error that causes people to consume immediately and thus miss out on the pleasures of anticipation.

Delaying consumption provides the benefit of anticipation, but it may also promote happiness in two other ways. First, it may alter what consumers choose. When people select goods for immediate consumption, they are tempted by "vices," such as fattening food and lowbrow entertainment, which produce pleasure right away but lack long-term benefits—or even carry long-term costs—for well-being (Read & van Leeuwen, 1998; Read, Loewenstein, & Kalyanaraman, 1999). By comparison,

delayed consumption is more likely to promote the selection of “virtues,” which produce more lasting (if less immediate) well-being. For example, when asked to choose a snack from an array that included apples, bananas, paprika-flavored crisps, and Snickers bars, people overwhelmingly selected an unhealthy snack if it was to be consumed immediately, but drifted toward the healthier options when selecting a snack to be consumed the following week (Read & van Leeuwen, 1998). Because the present seems to be viewed under an emotional magnifying glass, people gave in to the temptation of salty, sweet satiation when it was immediately available, but when such satiation receded into the future, this temptation no longer loomed large, freeing people to select more virtuous options—and perhaps to appreciate the abstract health benefits of a banana at least as much as the more concrete deliciousness of nutty, chocolatey nougat.

A second way in which delayed consumption may promote happiness is that it may create uncertainty. Before purchasing a product, consumers generally face some degree of uncertainty about which product they will select, what it will be like, and how they will use it. This uncertainty may help to counteract the process of adaptation by keeping attention focused on the product (Kurtz, Wilson, & Gilbert, 2007; Wilson, Centerbar, Gilbert, & Kermer, 2005; Wilson & Gilbert, 2008). Consider, for example, a little boy in Toys R Us eagerly clutching both a stunt kite and a water gun. While the boy would probably experience immediate delight if his mother offered to buy both toys for him, new research suggests that more lasting pleasure would ensue if his mother told him that she would return to the store the next day and buy him one of the two toys. Demonstrating this idea, Kurtz et al. (2006) told undergraduates that they had the opportunity to receive small gifts, such as Godiva chocolates, coffee mugs, and disposable cameras. At the beginning of the experiment, participants in the certainty condition were told which gift or gifts they would receive, whereas those in the uncertainty condition were told only that they would receive a gift, but were not told which one until the end of the session. Compared to those in the certainty condition, participants who were uncertain about which gift they would receive spent more time looking at pictures of the gifts and experienced a more lasting boost in mood during the experimental session. Indeed, at the end of the experimental session, participants in the uncertain condition who received just one gift were happier than those participants in the certain condition who received two gifts. When provided with a detailed description of the experimental conditions, however, most people predicted that they would be happier in the certain condition. Thus, our Toys R Us kid would likely entreat his mother to reveal which of the toys she was planning to buy him the following day, sincerely believing that this knowledge would make him happy, but his mother would be wise to keep mum, thereby treating her son to a pleasurable day of fantasizing about water fights and flying kites.

#### **Principle 6: Think about what you’re not thinking about**

According to a recent poll, a majority of adult Canadians dream of owning a vacation home, preferably by a lake (Gilmer

& Cassar, 2009). The features they highlight as important for their dream cottage include peace and quiet, access to fishing and boating, and sunset vistas. These are features that are central to the very essence of a lakeside cottage, and they naturally come to mind when people envision owning a vacation home. But, taking a broader view, there are many other, less essential aspects of cottage ownership that are likely to influence owners’ happiness, from the mosquitoes buzzing just outside, to the late-night calls about a plumbing disaster in the lakeside area, to the long drives back home after a vacation weekend with sleepy children scratching their mosquito bites. Cast in the soft light of imagination, these unpleasant, inessential details naturally recede from view, potentially biasing consumers’ predictions about the degree of happiness that their purchases will provide.

This phenomenon stems from a peculiar property of imagination. The farther away an experience lies in time, the more abstractly we tend to think of it (Liberman, Sagrastino, & Trope, 2002). Like airplane passengers viewing a city just as they begin their descent, we see the distant future in simple, high-level ways rather than in fine detail. Fully 89% of Canadians think of a cottage as “a great place for family to gather,” and although this high-level construal is not inaccurate, it is certainly incomplete inasmuch as it lacks important details about family gatherings—from whether to invite Aunt Mandy whose snoring will keep everyone awake, to what to make for dinner that will satisfy both the meat-lovers and the gluten-allergic vegaquarians in the clan.

This oversight matters because happiness is often in the details (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004; Kanner, Coyne, Schaefer, & Lazarus, 1981). On any given day, affective experience is shaped largely by local features of one’s current situation—such as experiencing time pressure at work or having a leisurely dinner with friends—rather than by more stable life circumstances (e.g., having high job security, being married; Kahneman et al., 2004). Over time, psychological distress is predicted better by the hassles and “uplifts” of daily life than by more major life events (Kanner et al., 1981). Thus, in thinking about how to spend our money, it is worthwhile to consider how purchases will affect the ways in which we spend our time. For example, consider the choice between a small, well-kept cottage and a larger “fixer upper” that have similar prices. The bigger home may seem like a better deal, but if the fixer upper requires trading Saturday afternoons with friends for Saturday afternoons with plumbers, it may not be such a good deal after all.

Of course, after buying a new home, our happiness will depend not only on the ripple effects associated with home ownership, but also on the many aspects of daily life that are simply unrelated to home ownership, from birthday cakes and concerts to faulty hard drives and burnt toast. Yet, because such “irrelevant” details of daily life are obscured from view when we focus our mental telescopes on an important future event, we may frequently overestimate the emotional impact of a focal event (Wilson, Wheatley, Meyers, Gilbert, & Axsom, 2000). Wilson et al. (2000) found evidence for this idea by surveying football fans at the University of Virginia (UVA) prior to a big game against a rival school. Asked to imagine how they would

feel in the days following the game, football fans expected that they would be much happier if their team won than if they lost. The day after UVA won this game, however, football fans were not nearly as ecstatic as they had expected to be. Prior to making their affective forecasts, another group of participants were asked to imagine what they would do, hour-by-hour, on the Monday following the football game, and these participants made more moderate affective forecasts, apparently recognizing that the joy stemming from their team's victory would be offset by the mundane activities of daily student life (e.g., eating, studying, attending class) that are unrelated to football. This suggests that consumers who expect a single purchase to have a lasting impact on their happiness might make more realistic predictions if they simply thought about a typical day in their life.

### Principle 7: Beware of comparison shopping

Each month, as many as 20 million people visit bizrate.com, a top comparison-shopping website that entices consumers with the slogan, "Search. Compare. Conquer." Sites like this one offer consumers the opportunity to search for everything from mattresses and remote control cars to educational degrees, comparing a vast range of available options within a given category. The comparison shopping facilitated by these sites offers obvious benefits to consumers, who can find the best deal on the product most ideally suited to their needs. But recent research suggests that comparison shopping may sometimes come at a cost. By altering the psychological context in which decisions are made, comparison shopping may distract consumers from attributes of a product that will be important for their happiness, focusing their attention instead on attributes that distinguish the available options.

Examining this idea, [Dunn, Wilson, and Gilbert \(2003\)](#) took advantage of a natural experiment created by the housing system at Harvard University. Near the end of their first-year of college, Harvard undergraduates are randomly assigned to spend the subsequent 3 years living in one of 12 "houses." Each house has a dining hall, as well as recreational facilities, and much of undergraduate life revolves around the houses. Some of the houses are located near the center of campus and have beautiful architecture and lovely rooms, while others are located farther from the main campus and were built during more regrettable eras of architectural design. Although there is great variety in the physical features of the houses, all of them offer their residents a sense of community, as well as the opportunity to live with their closest friends, with whom they enter the housing lottery. When asked directly, first-year students in our study reported that the physical features of the houses (e.g., location, room size) would be less important for their happiness than the social features (e.g., sense of community, relationships with roommates). Indeed, when these students later settled into their houses as sophomores and juniors, their happiness was predicted by the quality of social features but not by the quality of physical features in the houses. But, when these students stood on the brink of entering the housing lottery and were asked to predict how happy they would be living in each of the

12 houses, their attention gravitated to the features that differed most between the houses; their predictions were driven largely by the physical characteristics of each house, which varied greatly between the 12 houses, while they overlooked the role of social features in shaping their own future happiness. Because students focused excessively on highly variable features of the houses, they fell victim to the impact bias, overestimating how happy they would be living in the physically desirable houses and how miserable they would be living in the less desirable houses.

A similar process is likely to unfold in the real estate market. Before purchasing a home, people typically attend scores of open houses and viewings, scrutinizing spec sheets for information about each property's features. Through this process of comparison shopping, the features that distinguish one home from another may come to loom large, while their similarities fade into the background. As a result, home buyers might overestimate the hedonic consequences of living in a big, beautiful house in a great location versus a more modest home, leading them to take out a larger loan than they can truly afford (potentially sowing the seeds for a nationwide financial crisis).

From this perspective, comparison shopping may focus consumers' attention on differences between available options, leading them to overestimate the hedonic impact of selecting a more versus less desirable option. To the extent that the process of comparison shopping focuses attention on hedonically irrelevant attributes, comparison shopping may even lead people to choose a less desirable option over a more desirable option. In a particularly vivid demonstration of this idea, [Hsee \(1999\)](#) presented participants with a choice between receiving a larger (2.0 oz.) chocolate valued at \$2 that was shaped like a real cockroach and a smaller (0.5 oz.) chocolate valued at 50 cents that was shaped like a heart. Although only 46% of participants of participants predicted that they would enjoy the larger roach-shaped chocolate more than the smaller heart-shaped one, fully 68% of participants reported that they would choose the roach-shaped chocolate. This suggests that comparison shopping may lead people to seek out products that provide the "best deal" (i.e., why accept a chocolate valued at 50 cents when I could have one valued at \$2?).

Another problem with comparison shopping is that the comparisons we make when we are shopping are not the same comparisons we will make when we consume what we shopped for ([Hsee, Loewenstein, Blount, & Bazerman, 1999](#); [Hsee & Zhang, 2004](#)). [Morewedge et al. \(2010\)](#) asked people to predict how much they would enjoy eating a potato chip. Some participants were in a room that contained superior foods (e.g., chocolate) and some were in a room that contained inferior foods (e.g., sardines). Participants who were exposed to inferior foods predicted that they would like the chips more than did participants who were exposed to superior foods. But these predictions were wrong. When participants actually ate the chips, they liked them equally, regardless of what room they were in. When making predictions, participants naturally compared one imagined experience (chips) to another (chocolate or sardines). But once they actually had a mouthful of crispy fried salty potato chips, they no longer compared the food they



were eating to the food they might have eaten but didn't. One of the dangers of comparison shopping, then, is that the options we don't choose typically recede into the past and are no longer used as standards for comparison.

### Principle 8. Follow the herd instead of your head

By visiting the Internet Movie Database at [imdb.com](http://imdb.com), consumers can access a huge array of information to help them choose a movie, including trailers, plot summaries, and detailed information about the cast and crew. This information allows consumers to simulate the experience of watching a movie, potentially enabling them to make more accurate affective forecasts and better movie choices. Alternatively, however, consumers could choose to ignore all of this detailed information about a movie's content, and instead click on "user ratings" to find out how thousands of other visitors to the site rated the movie. It is possible to break down these ratings by demographics so, for example, a 32 year old woman could find out how women ages 30–44 liked the movie. So which method is better?

Research suggests that the best way to predict how much we will enjoy an experience is to see how much someone else enjoyed it. In one study, Gilbert, Killingsworth, Eyre, and Wilson (2009) asked women to predict how much they would enjoy a speed date with a particular man. Some of the women were shown the man's photograph and autobiography, while others were shown only a rating of how much a previous woman had enjoyed a speed date with the same man a few minutes earlier. Although the vast majority of the participants expected that those who were shown the photograph and autobiography would make more accurate predictions than those who were shown the rating, precisely the opposite was the case. Indeed, relative to seeing the photograph and autobiography, seeing the rating reduced inaccuracy by about 50%. It appears that the 17th century writer François de La Rochefoucauld was correct when he wrote: "Before we set our hearts too much upon anything, let us first examine how happy those are who already possess it."

Other people can supply us with a valuable source of data not only by telling us what has made them happy, but also by providing information about what they think will make us happy (McConnell, Dunn, Austin, & Rawn, in press). To demonstrate this idea, McConnell et al. (in press) told participants that they would be asked to eat two small snacks and then unveiled a piece of celery and a chocolate chip cookie, in turn. After seeing each food, participants predicted how much they would enjoy eating it, and then ate it and rated their actual enjoyment. Unbeknownst to participants, they were being watched by two observers, who surreptitiously rated participants' facial reactions when each food was unveiled. The flash of affect that appeared on participants' faces when they saw each food significantly predicted their enjoyment of the food—above and beyond the affective forecasts the participants themselves had made just moments before eating. This suggests that an attentive dining companion may be able to tell whether we would enjoy the fish or the chicken simply by watching our reactions when these options are presented. More broadly, other people may provide a useful source of information

about the products that will bring us joy because they can see the nonverbal reactions that may escape our own notice.

### Conclusion

When asked to take stock of their lives, people with more money report being a good deal more satisfied. But when asked how happy they are at the moment, people with more money are barely different than those with less (Diener, Ng, Harter, & Arora, 2010). This suggests that our money provides us with satisfaction when we think about it, but not when we use it. That shouldn't happen. Money can buy many, if not most, if not all of the things that make people happy, and if it doesn't, then the fault is ours. We believe that psychologists can teach people to spend their money in ways that will indeed increase their happiness, and we hope we've done a bit of that here.

### References

- Ainslie, G., & Haslam, N. (1992). Hyperbolic discounting. In G. Loewenstein, & J. Elster (Eds.), *Choice over time* (pp. 57–92). New York: Russell Sage Foundation.
- Aknin, L.B., Barrington-Leigh, C.P., Dunn, E.W., Helliwell, J.F., Biswas-Diener, R., Kemeza, I., Nyende, P., Ashton-James, C.E., & Norton, M.I. (2010). Prosocial spending and well-being: Cross-cultural evidence for a psychological universal. Manuscript submitted for publication.
- Aknin, L., Norton, M. I., & Dunn, E. W. (2009). From wealth to well-being? Money matters, but less than people think. *Journal of Positive Psychology, 4*, 523–527.
- Berns, G. S., Laibson, D., & Loewenstein, G. (2007). Intertemporal choice—toward an integrative framework. *Trends in Cognitive Science, 11*, 482–488.
- Blanchflower, D. G., & Oswald, A. J. (2004). Well-being over time in Britain and the USA. *Journal of Public Economics, 88*(7–8), 1359–1386.
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *The American Psychologist, 59*(1), 20–28.
- Bryant, F. B. (2003). Savoring Beliefs Inventory (SBI): A scale for measuring beliefs about savouring. *Journal of Mental Health, 12*, 175–196.
- Berner, R. (2004, December 20). The Warranty Windfall. *Business Week*. Retrieved from <http://www.businessweek.com>, December 20.
- Carter, T., & Gilovich, T. (2010). The relative relativity of experiential and material purchases. *Journal of Personality and Social Psychology, 98*, 146–159.
- Csikszentmihalyi, M. (1999). If we are so rich, why aren't we happy? *The American Psychologist, 54*, 821–827.
- Caruso, E. M., Gilbert, D. T., & Wilson, T. D. (2008). A wrinkle in time: Asymmetric valuation of past and future events. *Psychological Science, 19* (8), 796–801.
- Chen, T., Kalra, A., & Sun, B. (2009). Why do consumers buy extended service contracts? *Journal of Consumer Research, 36*(4), 611–623.
- Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being? *Social Indicators Research, 57*(2), 119–169.
- Diener, E., Ng, W., Harter, J., & Arora, R. (2010). Wealth and happiness across the world: Material prosperity predicts life evaluation, whereas psychosocial prosperity predicts positive feeling. *Journal of Personality and Social Psychology, 99*(1), 52–61.
- Diener, E., Sandvik, E., & Pavot, W. (1991). Happiness is the frequency, not the intensity, of positive versus negative affect. In F. Strack, M. Argyle, & N. Schwarz (Eds.), *Subjective well-being: An interdisciplinary perspective* (pp. 119–140). Oxford: Pergamon.
- Diener, E., & Seligman, E. P. (2002). Very happy people. *Psychological Science, 13*(3), 81–84.
- Dunbar, R. I. M., & Shultz, S. (2007). Evolution of the social brain. *Science, 317*, 1344–1347.

- Dunn, E. W., Aknin, L., & Norton, M. I. (2008). Spending money on others promotes happiness. *Science*, *319*, 1687–1688.
- Dunn, E. W., Biesanz, J. C., Human, L. J., & Finn, S. (2007). Misunderstanding the affective consequences of everyday social interactions: The hidden benefits of putting one's best face forward. *Journal of Personality and Social Psychology*, *92*, 990–1005.
- Dunn, E. W., Huntsinger, J., Lun, J., & Sinclair, S. (2008). The gift of similarity: How good and bad gifts influence relationships. *Social Cognition*, *26*, 469–481.
- Dunn, E. W., Wilson, T. D., & Gilbert, D. T. (2003). Location, location, location: The misprediction of satisfaction in housing lotteries. *Personality and Social Psychology Bulletin*, *29*, 1421–1432.
- Frederick, S., Loewenstein, G., & O'Donoghue, T. (2003). Time discounting and time preference: A critical review. In G. Loewenstein, D. Read, & R. F. Baumeister (Eds.), *Time and decision* (pp. 13–86). New York: Russell Sage Foundation.
- Frey, D. (1981). Reversible and irreversible decisions: Preference for consonant information as a function of attractiveness of decision alternatives. *Personality and Social Psychology Bulletin*, *7*, 621–626.
- Frey, D., Kumpf, M., Irle, M., & Gniech, G. (1984). Re-evaluation of decision alternatives dependent upon the reversibility of a decision and the passage of time. *European Journal of Social Psychology*, *14*, 447–450.
- Frey, B. S., & Stutzer, A. (2000). What can economists learn from happiness research? *Journal of Economic Literature*, *40*, 402–435.
- Gerson, E. S., & Woolsey, B. (2009). The history of credit cards. Retrieved from <http://www.creditcards.com/credit-card-news/credit-cards-history-1264.php>.
- Gilbert, D. T. (2006). *Stumbling on happiness*. New York: Knopf.
- Gilbert, D. T., & Ebert, J. E. J. (2002). Decisions and revisions: The affective forecasting of changeable outcomes. *Journal of Personality and Social Psychology*, *82*(4), 503–514.
- Gilbert, D. T., Killingsworth, M. A., Eyre, R. N., & Wilson, T. D. (2009). The surprising power of neighborly advice. *Science*, *323*, 1617–1619.
- Gilbert, D. T., Morewedge, C. K., Risen, J. L., & Wilson, T. D. (2004). Looking forward to looking backward: The misprediction of regret. *Psychological Science*, *15*, 346–350.
- Gilbert, D. T., Pinel, E. C., Wilson, T. D., Blumberg, S. J., & Wheatley, T. (1998). Immune neglect: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology*, *75*, 617–638.
- Gilbert, D. T., & Wilson, T. D. (2007). Propection: Experiencing the future. *Science*, *317*, 1351–1354.
- Gilbert, D. T., & Wilson, T. D. (2009). Why the brain talks to itself: Sources of error in emotional prediction. *Philosophical Transactions of the Royal Society B*, *364*, 1335–1341.
- Gilmer, T., & Cassar, M. (2009). Canadians still aspire to own recreational property: Dream alive as summer arrives. Retrieved <http://www.royalalpage.ca/en/utility/news/content.aspx?id=828&bottomcontent=874&toolstips=1052&relatedcontent=1074>.
- Girard, G. (1968). Décision révoicable et fuite du conflit. *Bulletin du CERP*, *18*, 245–251.
- Hsee, C. K. (1999). Value seeking and prediction–decision inconsistency: Why don't people take what they predict they'll like the most? *Psychonomic Bulletin & Review*, *6*(4), 555–561.
- 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*(5), 576–590.
- Hsee, C. K., & Zhang, J. (2004). Distinction bias: Misprediction and mischoice due to joint evaluation. *Journal of Personality and Social Psychology*, *86*(5), 680–695.
- Jecker, J. D. (1964). Selective exposure to new information. In L. Festinger (Ed.), *Conflict, decision, and dissonance* (pp. 65–82). Stanford, CA: Stanford University Press.
- Kahneman, D. (1999). Objective happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: Foundations of hedonic psychology* (pp. 3–25). New York: Russell Sage Foundation Press.
- Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1990). Experimental tests of the endowment effect and the Coase theorem. *Journal of Political Economy*, *98*, 1325–1348.
- Kahneman, D., Krueger, A. B., Schkade, D. A., Schwarz, N., & Stone, A. A. (2004). A survey method for characterizing daily life experience: The day reconstruction method. *Science*, *306*(5702), 1776–1780.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, *47*, 263–291.
- Kanner, A. D., Coyne, J. C., Schaefer, C., & Lazarus, R. S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine*, *4*, 1–39.
- Kassam, K. S., Gilbert, D. T., Boston, A., & Wilson, T. D. (2008). Future anhedonia and time discounting. *Journal of Experimental Social Psychology*, *44*(6), 1533–1537.
- Kermer, D. A., Driver-Linn, E., Wilson, T. D., & Gilbert, D. T. (2006). Loss aversion is an affective forecasting error. *Psychological Science*, *17*, 649–653.
- Killingsworth, M. A., & Gilbert, D. T. (2010). A wandering mind is an unhappy mind. *Science*, *330*, 932.
- Kurtz, J. L., Wilson, T. D., & Gilbert, D. T. (2007). Quantity versus uncertainty: When winning one prize is better than winning two. *Journal of Experimental Social Psychology*, *43*(6), 979–985.
- Harbaugh, W. T., Mayr, U., & Burghart, D. R. (2007). Neural responses to taxation and voluntary giving reveal motives for charitable donations. *Science*, *316*, 1622–1625.
- Liberman, N., Sagristano, M. D., & Trope, Y. (2002). The effect of temporal distance on level of mental construal. *Journal of Experimental Social Psychology*, *38*(6), 523–534.
- Linville, P. W., & Fischer, G. W. (1991). Preferences for separating or combining events. *Journal of Personality and Social Psychology*, *60*(1), 5–23.
- Loewenstein, G. (1987). Anticipation and the valuation of delayed consumption. *The Economic Journal*, *97*(387), 666–684.
- Loewenstein, G. (1999). Because it is there: The challenge of mountaineering for utility theory. *Kyklos*, *52*(3), 315–344.
- McClure, S. M., Laibson, D. I., Loewenstein, G., & Cohen, J. D. (2004). The grasshopper and the ant: Separate neural systems value immediate and delayed monetary rewards. *Science*, *306*, 503–507.
- McConnell, A. R., Dunn, E. W., Austin, S. N., & Rawn, C. D. (in press). Blind spots in the search for happiness: Implicit attitudes and nonverbal leakage predict affective forecasting errors. *Journal of Experimental Social Psychology*.
- Mellers, B. A. (2000). Choice and the relative pleasure of consequences. *Psychological Bulletin*, *126*(6), 910–924.
- Mischel, W., Shoda, Y., & Rodriguez, M. L. (1989). Delay of gratification in children. *Science*, *244*, 933–938.
- 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*(4), 421–448.
- Morewedge, C. K., Gilbert, D. T., Keysar, B., Berkovits, M. J., & Wilson, T. D. (2007). Mispredicting the hedonic benefits of segregated gains. *Journal of Experimental Psychology: General*, *136*(4), 700–709.
- Morewedge, C. K., Gilbert, D. T., Myrseth, K. O. R., Kassam, K. S., & Wilson, T. D. (2010). Consuming experience: Why affective forecasters overestimate comparative value. *Journal of Experimental Social Psychology*, *46*, 986–992.
- Morewedge, C. K., Shu, L. L., Gilbert, D. T., & Wilson, T. D. (2009). Bad riddance or good rubbish? Ownership and not loss aversion causes the endowment effect. *Journal of Experimental Social Psychology*, *45*, 947–951.
- Nelson, L. D., & Meyvis, T. (2008). Interrupted consumption: Adaptation and the disruption of hedonic experience. *Journal of Marketing Research*, *45*, 654–664.
- 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.
- Parducci, A. (1995). *Happiness, pleasure, and judgment: The contextual theory and its applications*. Mahwah, NJ: Lawrence Erlbaum.
- Quoidbach, J., Dunn, E. W., Petrides, K. V., & Mikolajczak, M. (2010). Money giveth, money taketh away: The dual effect of wealth on happiness. *Psychological Science*, *21*, 759–763.
- Read, D., Loewenstein, G., & Kalyanaraman, S. (1999). Mixing virtue and vice: Combining the immediacy effect and the diversification heuristic. *Journal of Behavioral Decision Making*. : John Wiley & Sons, Inc (Writer).

- Read, D., & van Leeuwen, B. (1998). Predicting hunger: The effects of appetite and delay on choice. *Organizational Behavior and Human Decision Processes*, 76(2), 189–205.
- Schervish, P., & Szanto, A. (2006). Wealth and giving by the numbers. *Reflections*, 2, 30–49.
- Soman, D., Ainslie, G., Frederick, S., Li, X., Lynch, J., Moreau, P., et al. (2005). The psychology of intertemporal discounting: Why are distant events valued differently from proximal ones? *Marketing Letters*, 16(3), 347–360.
- Smith, D. M., Langa, K. M., Kabeto, M. U., & Ubel, P. A. (2005). Happiness and physical activity in special populations: Evidence from Korean survey data. *Journal of Sports Economics*, 11, 136–156.
- Thaler, R. (1985). Mental accounting and consumer choice. *Marketing Science*, 4(3), 199–214.
- Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making*, 12(3), 183–206.
- Thaler, R. H., & Johnson, E. J. (1990). Gambling with the house money and trying to break even: The effects of prior outcomes on risky choice. *Management Science*, 36(6), 643–660.
- Thaler, R., & Sunstein, C. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. New Haven: Yale University Press.
- Ubel, P. (2006). *You're stronger than you think*. New York: McGraw Hill.
- 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.
- Van Boven, L., & Ashworth, L. (2007). Looking forward, looking back: Anticipation is more evocative than retrospection. *Journal of Experimental Psychology: General*, 136(2), 289–300.
- Vohs, K. D., Mead, N. L., & Goode, M. R. (2006). The psychological consequences of money. *Science*, 314, 1154–1156.
- 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.
- Wilson, T. D., & Gilbert, D. T. (2003). Affective forecasting. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, Vol. 35. (pp. 345–411) San Diego, CA: Academic Press.
- Wilson, T. D., & Gilbert, D. T. (2008). Explaining away: A model of affective adaptation. *Perspectives on Psychological Science*, 3, 370–386.
- Wilson, T. D., Wheatley, T., Meyers, J. M., Gilbert, D. T., & Axsom, D. (2000). Focalism: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology*, 78(5), 821–836.