

The hidden cost of value-seeking: People do not accurately forecast the economic benefits of experiential purchases

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In spite of the experiential advantage, people consume material items in the pursuit of happiness. We conducted three studies to determine if people commit forecasting errors when deciding between purchasing life experiences and material items. Study 1a showed that people expect life experiences to result in more well-being, whereas material items are forecasted to be a better use of money. However, Study 1b demonstrated that people enjoy greater well-being from life experiences *and* consider them to be a better use of money. Study 2, a four-week longitudinal study, corroborated this economic misforecast. Study 3 demonstrated that seeking to make good use of one's money, compared to prioritizing happiness, is more important during material consumption, and when people attempt to maximize economic value, instead of their happiness, they are more likely to consume material items. We suggest that prioritizing value may encourage people to prefer material items instead of life experiences.

Keywords: affect forecasting; experiential buying; consumption experience; predicted utility; inconsistency

Consumers frequently spend money in the pursuit of happiness. At times, their expenditures do not contribute to greater well-being. It has been suggested that this occurs when people use their money in the wrong ways or on the wrong things (Dunn, Gilbert, & Wilson, 2011). For example, a common strategy people use to increase their happiness is the acquisition of material possessions (Kasser, Cohn, Kanner, & Ryan, 2007). However, there is now considerable evidence that materialism is associated with less happiness and life satisfaction, poorer interpersonal relationships, and higher levels of anxiety and depression (Howell & Hill, 2009; Kashdan & Breen, 2007; Kasser & Ryan, 1993). One reason materialistic individuals experience less life satisfaction is that they are less likely to consume life experiences (Howell, Pchelin, & Iyer, 2012; Tatzel, 2003). Thus, it may be precisely *what* individuals typically buy that contributes to, or detracts from, their well-being (Howell & Howell, 2008).

There is robust evidence that compared to material purchases, experiential purchases (e.g. activities and events, fees and admissions, travel, outdoor activities) contribute to greater happiness and are a better use of money (Millar & Thomas, 2009; Nicolao, Irwin, & Goodman, 2009; Van Boven & Gilovich, 2003). These hedonic and economic advantages are due to experiential purchases contributing to greater relatedness and vitality (Caprariello & Reis, 2013; Howell & Hill, 2009); in addition, people are less likely to maximize, ruminate, or compare their experiences (Carter & Gilovich, 2010).

This may be because experiences are considered to be aligned with self-identity (Carter & Gilovich, 2012) and tend to be reinterpreted positively over time (Van Boven & Gilovich, 2003); furthermore, people adapt slower to those experiential choices (Nicolao et al., 2009).

In spite of the experiential advantage (i.e. life experiences make people happier than material items), people still consume material comforts with the hope of increasing happiness. This begs the question: why do people continue to buy material items, rather than life experiences, when pursuing happiness? We believe that people may be failing to accurately forecast all the benefits associated with experiential purchases. Unfortunately, rarely has forecasting accuracy for life experiences and material items been compared. Therefore, the goal of this project is to determine if people are falling victim to forecasting errors when deciding between life experiences and material items.

Affective forecasting and consumer choice

Many decisions are influenced by affective forecasts (MacInnis, Patrick, & Park, 2006; Wilson & Gilbert, 2003). However, people have a tendency to overestimate how much, and for how long, positive and negative events will impact them emotionally (Dunn, Wilson, & Gilbert, 2003; Gilbert, Morewedge, Risen, & Wilson, 2004; Sevdis & Harvey, 2007). For example, Hsee and Zhang (2004) demonstrated that people expected larger chocolates to make them happier than smaller ones and

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were willing to perform negative tasks in order to obtain more chocolate; however, it was shown that people were actually just as happy with chocolate regardless of its size. Thus, forecasting benefits that do not occur can lead people to engage in less enjoyable behaviors for rewards that are not realized. Also, at times, people underestimate their responses (Lench, Safer, & Levine, 2011; Nisbet & Zelenski, 2011). Nelson and Meyvis (2008) found that individuals anticipated that continuous experiences would be more pleasurable than interrupted ones. Contrary to the forecasts, those who experienced an interrupted massage or music piece actually rated their experiences as more enjoyable. These inaccurate forecasts can occur because people rely on unrepresentative memories, compare to past experiences that are not necessarily relevant, and remember their past forecasts as being more accurate than they actually were (Gilbert & Wilson, 2007; Meyvis, Ratner, & Levav, 2010; Wilson, Meyers, & Gilbert, 2001).

Also, consumers may overestimate the emotional benefits of their consumption choices (MacInnis et al., 2006). Thus, it has been proposed that incorrect forecasts lead to spending decisions that do not maximize happiness (Dunn et al., 2011). For example, when planning, people anticipate more enjoyment during their vacation than they actually experience (Mitchell, Thompson, Peterson, & Cronk, 1997); additionally, consumers neglect to anticipate adapting to consumer products when forecasting future enjoyment (Wang, Novemsky, & Dhar 2009). Conversely, consumers can underestimate their responses to consumption. For example, individuals underestimate how much they will like non-exchangeable products (Gilbert & Ebert, 2002) and how much they will value products after ownership (Loewenstein & Adler, 1995). When people are influenced by social norms (e.g. the 'get over it' and 'no big deal' rules), they may underestimate the length of time purchases will contribute to happiness (Wood & Bettman, 2007) and positive emotions (Pollai, Hoelzl, & Possas, 2009). That being said, there is evidence that, at least some of the time, people can accurately forecast their future emotional responses. For instance, people accurately anticipate their level of well-being from intrinsic goal achievement (Sheldon, Gunz, Nichols, & Ferguson, 2010).

Regrettably, there is almost no research that has systematically compared the forecasts of material and experiential purchases. One exception is Van Boven and Gilovich (2003) who showed that *only* when choosing a purchase for the distant future were participants more likely to choose experiences and believe that experiences would provide greater happiness. In their hypothetical scenario, participants were asked to indicate whether they would choose a material or experiential purchase in either the near future (i.e. tomorrow) or the distant future

(i.e. in a year). Participants also indicated how much happiness they anticipated from the purchase. When considering a distant future, the majority of participants chose to buy the life experience and expected it to result in more happiness. Conversely, when people decided between a material item and a life experience in the near future (i.e. tomorrow), only half of the participants chose experience over material item. This finding suggests that even though experiences may contribute more to happiness, need satisfaction, and are a better use of money, when faced with impending purchase choices, individuals may not necessarily choose experiences or anticipate that experiences will lead to greater well-being.

Current studies

We conducted three studies to determine if people's forecasts and evaluations were different for their material items and life experiences. The goal of Study 1 and 2 was to determine if there was a misalignment between people's pre-consumption forecasts and their post-consumption evaluations of material and experiential purchases. To determine if individuals are misforecasting their purchase outcomes, participants in Study 1a wrote about a purchase they intended to make in the next two weeks and rated how much they expected this purchase to impact their well-being. An independent sample of participants in Study 1b were asked to freely recall a recent purchase they had made in order to increase their happiness and rated how much well-being this purchase provided. We then compared the anticipated purchase benefits in Study 1a to the purchase evaluations in Study 1b. Evidence of forecasting errors would be supported if individuals forecasted one purchase type to provide more well-being before consumption and evaluated the other purchase type to provide more well-being after consumption.

Because the design of Study 1 was cross-sectional, the goal for Study 2 was to replicate any forecasting errors with a longitudinal design. As participants in Study 1 and 2 self-selected the purchase they forecasted and evaluated, we determined whether these forecasts and evaluations were a result of the type of person completing the assessment as opposed to the purchase type itself. This was accomplished by examining whether participants who wrote about a life experience or material item differed by demographic characteristics (e.g. age, gender, household income), spending habits (e.g. material values, compulsive consumption, experiential preferences), or well-being (e.g. happiness, financial well-being) in both studies.

The goal of Study 3 was to determine (a) if considering a purchase to be a good use of money is more important when making decisions about material purchases and if happiness is more important when making

decisions about experiential purchases, and (b) if prioritizing happiness or seeking to make good use of one's money leads to more material or experiential consumption. Participants in Study 3a imagined themselves facing six buying decisions – three material and three experiential – and rated the importance (when deciding to purchase the items and experiences) of both happiness and the purchase being a good use of their money. Participants in Study 3b were asked to imagine facing four buying decisions, each between a material and experiential purchase, when their goal was to maximize their happiness in life or make the best use of their money. Evidence for the impact of seeking to make good use of one's money, compared to happiness-seeking, on consumption would be supported if (a) individuals' importance ratings of the purchase being a good use of money or making them happy differed when deciding between material items and life experiences, and (b) participants consumed one purchase type more than the other when seeking to make good use of one's money instead of prioritizing happiness.

Study 1: Do pre-purchase forecasts align with post-consumption evaluations?

Method

Participants

Participants in study 1a ($N=124$) were recruited from various social networking websites (e.g. Facebook; 61% female; 62.1% Caucasian; $M_{age}=34.31$ years, $SD=12.14$ years; 67% with a college degree or higher) in order to determine people's pre-consumption forecasts for material and experiential purchases. Participants in study 1b ($N=196$) were recruited through online psychology study websites (e.g. socialpsychology.org; 75.9% female; 68.1% Caucasian; $M_{age}=29.98$ years, $SD=11.67$ years) in order to determine people's post-consumption evaluations for material and experiential purchases.

Spending recall procedures. For Study 1a, we used a methodology similar to other affect forecasting studies (see Ayton, Pott, & Elwakili, 2007; Sevdalis & Harvey, 2007); participants were asked to write about a planned purchase they expected would increase their happiness (see Appendix 1 for the complete instructions). For Study 1b, similar to Nicolao et al. (2009), we used a quasi-experimental design. Participants were instructed to first think about and then briefly describe a recent purchase they made with the intention of making them happy (again, see Appendix 1). After writing about their purchase, participants in both studies self-categorized their purchase as either a material item or a life experience. We used the participants' codes as our two purchase categories (i.e. material items and life

experiences). After participants wrote their purchase descriptions, they also rated the degree to which they expected (Study 1a) or experienced (Study 1b) hedonic well-being, eudaimonic well-being, positive and negative emotions from their purchases, as well as the degree to which the expenditure will be/was a good use of money.

Materials

Hedonic well-being. In order to measure how much purchases were either forecasted to contribute (Study 1a) or did contribute (Study 1b) to hedonic well-being, participants answered the following questions: 'How much do you expect (How much has) this purchase will contribute (contributed) to your overall life's happiness?' and; 'How much do you think this purchase will increase (increased) your overall life satisfaction?' on 7-point Likert scale, ranging from 1 (not at all) to 7 (very much). The two items were highly correlated in both studies (r_s were 0.82 and 0.87).

Eudaimonic well-being. Although there is still much debate on how to differentiate hedonism from eudaimonism, the majority of well-being researchers believe that these two constructs can be differentiated as life satisfaction and personal growth. In fact, Vittersø and Søholt (2011) showed that personal growth was more related to the emotion of interest and life satisfaction was linked to the emotion of pleasure. Therefore, in order to measure how much purchases were either forecasted to contribute (Study 1a) or did contribute (Study 1b) to eudaimonic well-being, we modified eight items from a general psychological need satisfaction questionnaire (Gagné, 2003) and a scale of subjective vitality (Ryan & Frederick, 1997; e.g. 'This purchase will help (has helped) me make new friends or strengthened existing friendships,' 'This purchase will increase (increased) my abilities in some area,' 'This purchase will make me (has made me) feel more alive.' Participants in both studies rated each item from 1 (not true) to 5 (very true). The eight items were internally consistent in both studies (Study 1a: $\alpha=0.88$; Study 1b: $\alpha=0.90$).

Positive and negative emotions. In order to measure how much purchases were either forecasted to contribute (Study 1a) or did contribute (Study 1b) to the emotions anticipated or felt when participants used their material item or during the experience, participants were asked: 'What emotions do you expect you will feel (did you feel) ... (1) when you use (the last time you used) this item or (2) during your experience?' The emotions selected were similar to those used in the day reconstructive method (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). Three positive emotions (e.g. happy) and

three negative emotions (e.g. frustrated/annoyed) were rated from 0 (not at all) to 6 (very much).

A good use of one's money. We asked respondents to 'evaluate the wisdom of their purchase from an economic standpoint' (Van Boven & Gilovich, 2003, p. 1194). That is, in the same way that previous studies asked participants to rate whether their life experiences were better financial investments than their possessions, we selected two monetary items for participants to rate. Participants rated the extent their purchases were a good use of money and if they thought their money could have been better spent on something else. Specifically, in order to measure how much purchases were either forecasted to be (Study 1a) or were (Study 1b) a good use of their money, participants answered the two economic questions asked by Van Boven and Gilovich (2003). First they rated 'To what extent do you think the money spent on this purchase (or experience) will be (would have been) better spent on something else – some other type of purchase that would have made you happier?' from 1 (not at all) to 7 (very much). In addition, participants rated 'To what extent do you feel this purchase (or experience) will be (was a) good use of your money?' from 1 (a poor use of my money) to 7 (a great use of my money). The two items were negatively correlated in both studies (r s were -0.54 and -0.59).

Individual differences in consumer behavior. Because we allowed participants to self-select the purchase type they would forecast or evaluate, we measured a few possible individual differences, which could predict group membership.

In Study 1a we evaluated material values using the 15-item material values scale (MVS; Richins & Dawson, 1992) and the tendency to engage in compulsive shopping using the 7-item compulsive buying scale (Faber & O'Guinn, 1992). In Study 1b, participants completed the satisfaction with life scale (Diener, Emmons, Larsen, & Griffin, 1985) and the incharge financial distress/financial well-being scale (Prawitz et al., 2006). We used a behavioral measure of a preference for experiential or material purchases by asking participants what type of gift card they would like to receive as possible compensation for taking the survey (see Howell et al., 2012).

Results

To determine if pre-purchase forecasts and post-consumption evaluations were similar for material and experiential purchases, we conducted five independent sample t -tests within both studies (see Table 1, which reports the mean, standard deviations, t -tests, and effect sizes for each outcome in Study 1a and Study 1b). Because there are a number of reasons a person would self-select to forecast

or recall a life experience or material item (e.g. their buying tendency) and given that we allowed participants to self-select which purchase type they would forecast or recall, we examined whether the type of people who recalled or forecasted an experiential purchase or a material item differed from each other. Those who elected to forecast a life experience, compared to those who elected to forecast a material purchase (Study 1a), were not different in age, gender, household income, material values, or compulsive shopping. In Study 1b, those who elected to recall a life experience rather than a material purchase were not different in age, gender, household income, happiness, financial well-being, or experiential preferences. These results suggest that demographic characteristics and buying habits did not impact our results.

Next, we evaluated the similarity between purchase forecasts and evaluations. Across the five outcomes there were three consistent trends. First, participants forecasted and experienced more hedonic well-being, eudaimonic well-being, and positive emotions from their experiential purchases compared to their material purchases (again, see Table 1). These results suggest that individuals correctly forecast the hedonic, eudaimonic, and positive emotional benefits of experiential consumption. Also, the effect sizes for these purchase forecasts and evaluations were of similar magnitude, with the experiential advantage being strongest for eudaimonic well-being and weakest for hedonic well-being. Second, there was no difference in forecasted and experienced negative emotions – participants did not expect their life experiences to be more or less undesirable than using their material items. Most notably, there was a clear contrast between the purchases forecasted to be a good use of money and the purchases experienced as being a good use of money. While people forecasted that their experiential purchases would be a *worse* use of their money than material purchases, after consumption people evaluated their life experiences as being a *better* use of money. Also, it should be noted that these results were consistent for both economic items. Further, this misforecast was due to people underestimating the economic benefits of life experiences ($M_{\text{forecast}} = 2.67$ vs. $M_{\text{evaluation}} = 5.49$, $t(138) = 11.05$, $p < 0.001$) as participants were rather accurate in estimating the economic value of material items ($M_{\text{forecast}} = 5.17$ vs. $M_{\text{evaluation}} = 4.95$, $t(178) = 0.95$, $p = 0.34$).

Finally, given that individuals forecasted life experiences to provide more hedonic well-being, eudaimonic well-being, and positive affect, while at the same time expecting them to be a poorer use of money, knowing whether individuals underestimate the economic benefits of life experiences while controlling for hedonic well-being, eudaimonic well-being, and positive affect was deemed to be an important *post hoc* test. Therefore, we examined the correlations between forecasted hedonic well-being, eudaimonic well-being, positive affect, and

Table 1. Mean differences in purchase well-being pre-consumption forecasts and post-consumption evaluations for material and experiential purchases.

	Study 1a: pre-purchase forecasts				Study 1b: post-consumption evaluations			
	Material purchase (n = 50)	Experiential purchase (n = 74)	t-test	r-effect size	Material purchase (n = 130)	Experiential purchase (n = 66)	t-test	r-effect size
Hedonic well-being	3.91 (1.59)	4.59 (1.57)	2.34	0.21**	4.58 (1.58)	5.09 (1.38)	2.20	0.16*
Good use of money	5.17 (1.30)	2.67 (1.30)	-10.54	-0.69**	4.95 (1.60)	5.49 (1.67)	2.12	0.16*
Eudaimonic well-being	2.21 (0.90)	3.21 (0.94)	5.78	0.47**	2.51 (1.05)	3.29 (1.04)	4.62	0.33**
Positive emotions	4.82 (1.60)	6.03 (1.06)	4.99	0.42**	5.01 (1.46)	5.90 (1.23)	4.18	0.29**
Negative emotions	1.39 (0.59)	1.37 (0.72)	-0.52	-0.01	2.06 (1.13)	2.11 (1.38)	0.31	0.02

Note: Means (with standard deviations in parentheses) are reported for each group. All response scales range from 1 (low) to 7 (high) except for eudaimonic well-being, which ranges from 1 (low) to 5 (high). Effect sizes are reported such that positive values indicate higher values for experiential purchases. In Study 1a, those who elected to reflect on a life experience were not different in age, gender, household income, material values, or compulsive consumption. In Study 1b, those who elected to reflect on a life experience were not different in age, gender, household income, happiness, financial well-being, or experiential preferences. Finally, the pattern of results was not different when only examining the 'good use of money' question separately. * $p < .05$; ** $p < .01$.

the degree to which the purchase would be a good use of money. First, forecasted hedonic well-being was not related to whether the person expected the purchase to be a good use of money ($r = -0.09$, *ns*). Interestingly, though eudaimonic well-being and positive affect were moderately associated with the extent to which purchases were expected to be a good use of money, the correlations were negative ($r = -0.30$, $p < 0.001$; $r = -0.16$, $p < 0.05$). For these reasons, it was not surprising that there was no meaningful change in the economic forecasting results of Study 1a when controlling for hedonic well-being, eudaimonic well-being, and positive affect – material items were forecasted to be better use of money in spite of the anticipated hedonic, eudaimonic, and positive affect benefits from life experiences.

Brief discussion

Participants anticipated (Study 1a) and experienced (Study 1b) greater hedonic and eudaimonic well-being, as well as more positive affect from life experiences compared to material possessions. Therefore, these results support prior studies suggesting that people can, at times, make relatively accurate forecasts (Finkenauer, Gallucci, van Dijk, & Pollmann, 2007; Kitchens, Corser, Gohm, von Waldner, & Foreman, 2010). In contrast, and most interestingly, participants forecasted that their experiential purchases would be a poorer use of money (Study 1a); however, in retrospect, experiential purchases were considered to be a better use of money (Study 1b). Nonetheless, because Study 1a and 1b were cross-sectional, and the samples may have differed, we must interpret these results with caution and only as suggestive of a forecasting error. Thus, the aim for Study 2 was to replicate this misforecast using a longitudinal design.

Study 2: Corroborating the cross-sectional results with a longitudinal study

Method

Participants and procedures

Participants in Study 2 were recruited from San Francisco State University in order to determine if people accurately forecast the hedonic, eudaimonic, and positive emotional benefits of experiential consumption, while underestimating the degree to which experiential purchases will be a good use of money. It is important to note that the participants who signed up for the longitudinal study were not required to participate in all three time points – instead, they received class credit for each survey they completed. Likely for this reason, there were many more participants who took the first survey ($n = 214$) than those who elected to take the second survey ($n = 118$). Most of the participants who took the second survey, however, did make their planned purchase ($n = 89$). Finally, more than half of the participants from the second survey who did make their intended purchase elected to complete the third, and final, survey ($n = 59$). It was this group of participants (75% female; 46.7% European American/Caucasian; $M_{\text{age}} = 25.49$ years, $SD = 9.55$ years) we used, to examine purchase forecasts and evaluations across time.

Given the large number of participants who either: (a) declined to take follow-up studies or (b) did not make the purchase they intended to make, we examined whether there were demographic or personality differences in these groups compared to those who completed all three surveys. Those who did not complete the second survey or did not make the purchase they intended on making did not differ in terms of age, gender, household income, material values (MVS; Richins & Dawson, 1992), experiential tendencies (Howell et al., 2012), happiness (Diener et al.,

1985), financial security (Prawitz et al., 2006), or purchase forecasts. Thus, we believe those who completed all three surveys were similar in terms of demographic characteristics, consumer behaviors and values, well-being, and their expectations for their purchases to those who did not complete all three surveys.

Procedures

Because differences in material and experiential adaptation rates have been found over a two-week period (Nicolao et al., 2009), and prior longitudinal purchasing studies showed emotional changes over four weeks (Pollai et al., 2009), we designed our longitudinal study such that participants (a) made forecasts relating to a purchase that was to be purchased in the next two weeks and (b) evaluated that same purchase two weeks and four weeks after their initial forecasts (similar to Lam, Buehler, McFarland, Ross, & Cheung, 2005).

As for the study procedure, we used the same prompt and recall instructions used in Study 1a to elicit purchase forecasts. That is, participants were asked to write about a planned purchase that was expected to increase their happiness. After writing about the purchase they anticipated buying, participants self-categorized this purchase as either a material item or a life experience – we used the participants' codes of their own purchases as our two purchase categories. They then completed surveys measuring material values (MVS; Richins & Dawson, 1992), experiential tendencies (Howell et al., 2012), happiness (Diener et al., 1985), and financial security (Prawitz, et al., 2006). The follow-up surveys used the same recall prompt and post-consumption questions used in Study 1b. To analyze changes over time for the same purchase, a group of five coders, who were blind to all responses by the participants, assessed whether each participant described the same purchase for all three surveys.

Results

Preliminary analyses

Identical to Study 1a and Study 1b, we examined if the types of people who forecasted an experiential purchase differed from those who forecasted a material purchase. While there were no differences between those who self-selected to make forecasts about a life experience or material item in Study 1a, those in Study 2 who anticipated buying a life experience were more experiential (i.e. they scored higher on the experiential buying tendency scale, see Howell et al., 2012). For this reason, we controlled for experiential buying tendencies in all analyses below.

Also, given the independence of forecasted well-being and monetary forecasts in Study 1a, we again

examined the relationships between anticipated hedonic well-being, eudaimonic well-being, positive affect, and the extent to which purchases were expected to be a good use of money. Replicating the results from Study 1a, hedonic well-being was not related to the expectation that the purchase would be a good use of money ($r = -0.08$, *ns*). Interestingly, eudaimonic well-being and positive affect were also not significantly correlated with the expectation that the purchase would be a good use of money. Further, just as in Study 1a, there were no meaningful changes in the results when controlling for hedonic well-being, eudaimonic well-being, and positive affect for the monetary forecasts of material items and life experiences.

Data analyses

We used a 3 (time points) \times 2 (purchase type) mixed-factorial ANOVA, to test the accuracy of participants' purchase forecasts (using the Study 1a questions) compared to their purchase evaluations (using the Study 1b questions) for hedonic and eudaimonic well-being, positive and negative emotions, as well as the expectation and experience of the purchase being a good use of money. In each mixed-factorial we controlled for one's experiential buying tendency. For all analyses, purchase type was the between-groups factor. Time was the within-groups factor (i.e. anticipated [Time 1], experienced two weeks later [Times 2], and experienced two additional weeks later [Time 3]). All significant purchase or time main effects were tested with *post hoc* comparisons; all significant interactions were tested with pairwise comparisons at each time point.

Hedonic and eudaimonic well-being

There was no significant main effect of purchase type ($M_{\text{Material}} = 3.96$ vs. $M_{\text{Experiential}} = 4.06$; $F[1, 55] = 0.05$, *ns*), time ($M_{\text{Forecasted}} = 4.03$ vs. $M_{\text{Two weeks}} = 4.07$ vs. $M_{\text{Four weeks}} = 3.94$; $F[2, 110] = 0.18$, *ns*), or interaction of time and purchase type ($F[2, 110] = 1.08$, *ns*) in predicting hedonic well-being. Thus, people anticipated and experienced the same level of hedonic well-being for their material items and life experiences across all three time points. There was an interesting interaction between purchase type and buying tendency – those who had an experiential buying tendency reported more hedonic well-being, regardless of the purchase type, approximately four weeks after consumption. Experiential buyers did not, however, enjoy their life experiences any more than material buyers nor did they enjoy their material items any less than material buyers.

There was a main effect of purchase type ($M_{\text{Material}} = 2.52$ vs. $M_{\text{Experiential}} = 3.04$; $F[1, 57] = 4.10$, $p < 0.05$) on eudaimonic well-being; however, there was no main

effect of time ($M_{\text{Forecasted}} = 2.80$ vs. $M_{\text{Two weeks}} = 2.77$ vs. $M_{\text{Four weeks}} = 2.77$; $F[2, 114] = 0.02$, *ns*) and no significant interaction between time and purchase type ($F[2, 114] = 0.10$, *ns*). Overall, consistent with the cross-sectional results, people anticipated and experienced more eudaimonic well-being from life experiences when compared to material items. Also, individual differences in experiential buying tendencies did not moderate any of these effects.

Positive and negative emotions

There was a main effect of purchase type ($M_{\text{Material}} = 3.19$ vs. $M_{\text{Experiential}} = 3.95$; $F[1, 57] = 4.39$, $p < 0.05$) on positive emotions; however, there was no significant main effect of time ($M_{\text{Forecasted}} = 3.61$ vs. $M_{\text{Two weeks}} = 3.62$ vs. $M_{\text{Four weeks}} = 3.47$; $F[2, 114] = 0.85$, *ns*) and no significant interaction of time and purchase type ($F[2, 114] = 0.44$, *ns*). Consistent with the cross-sectional results, people anticipated and experienced more positive emotions from their experiences compared to their material items. Also, individual differences in experiential buying tendencies did not moderate any of these effects.

Also consistent with the cross-sectional results, there was no significant main effect of purchase type ($M_{\text{Material}} = 0.89$ vs. $M_{\text{Experiential}} = 0.68$; $F[1, 57] = 0.85$, *ns*), time ($M_{\text{Forecasted}} = 0.72$ vs. $M_{\text{Two weeks}} = 0.83$ vs. $M_{\text{Four weeks}} = 0.80$; $F[2, 114] = 0.54$, *ns*), nor interaction of time and purchase type, ($F[2, 114] = 1.16$, *ns*) in predicting negative emotions. Thus, people anticipated and experienced the same (very low) level of negative emotions from their material items and life experiences across all three time points. Also, individual differences in experiential buying tendencies did not moderate any of these effects.

A good use of one's money

There was no significant main effect of purchase type ($M_{\text{Material}} = 4.67$ vs. $M_{\text{Experiential}} = 4.67$; $F[1, 57] = 0.00$, *ns*). However, there was (1) a significant main effect of time ($M_{\text{Forecasted}} = 3.66$ vs. $M_{\text{Two weeks}} = 5.30$ vs. $M_{\text{Four weeks}} = 5.05$; $F[2, 114] = 31.94$, $p < 0.001$) which was largely due to a significant interaction between time and purchase type ($F[2, 114] = 17.26$, $p < 0.001$) in predicting the extent to which a purchase was considered a good use of money. At Time 1, people anticipated that life experiences would be *poorer* use of money compared to material items ($M_{\text{Material}} = 4.41$ vs. $M_{\text{Experiential}} = 2.90$; $t[56] = -5.69$, $p < 0.001$; see Figure 1). However, at Time 2 ($M_{\text{Material}} = 4.91$ vs. $M_{\text{Experiential}} = 5.70$; $t[56] = 2.88$, $p < 0.01$) and Time 3 ($M_{\text{Material}} = 4.67$ vs. $M_{\text{Experiential}} = 5.42$; $t[56] = 2.54$, $p < 0.01$) people considered their experiences to be a *better* use of money compared to the material items.

Also, replicating the results from Study 1a, the interaction was due to participants underestimating how much life experiences would be a good use of money ($M_{\text{Forecasted}} = 2.90$ vs. $M_{\text{Two weeks}} = 5.70$, $t[56] = 8.17$, $p < 0.001$; $M_{\text{Forecasted}} = 2.90$ vs. $M_{\text{Four weeks}} = 5.42$; $t[56] = 6.07$, $p < 0.001$) as people were relatively accurate at estimating how much material items would be a good use of their money ($M_{\text{Forecasted}} = 4.41$ vs. $M_{\text{Two weeks}} = 4.91$, $t[56] = 1.61$, $p < 0.10$; $M_{\text{Forecasted}} = 4.41$ vs. $M_{\text{Four weeks}} = 4.70$; $t[56] = 0.80$, *ns*). Also, individual differences in experiential buying tendencies did not moderate any of these effects.

Brief discussion

Over three studies, both the cross-sectional and longitudinal results show that individuals underestimate the extent to which they will consider life experiences to be a good use of money, though for the most part, they accurately forecast the well-being they will experience from their purchases. The lone discrepancy between the cross-sectional and longitudinal results was that in Study 2 there was no difference in hedonic well-being for material or experiential purchases at

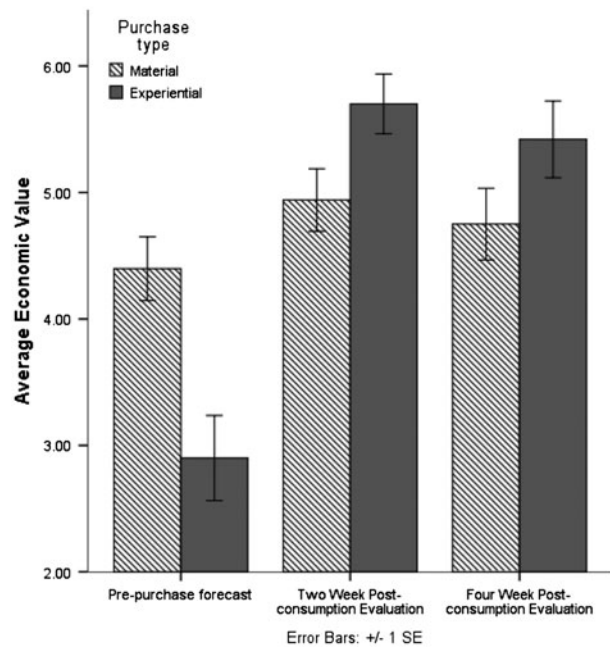


Figure 1. This figure shows that people underestimate the extent to which life experiences will be considered a good use of money. At Time 1 people anticipated life experiences to be poorer use of money compared to material items. At Time 2 and Time 3 people considered experiences to be better use of money compared to the material items. Also, the interaction is largely due to people underestimating the extent to which life experiences will be a good use of money as they are relatively accurate at estimating whether material items will be a good use of money.

any time point. This may be due to the global nature of these questions (e.g. overall life's happiness and life satisfaction). Given that participants forecasted and experienced more positive emotions from their life experiences (replicating the findings in Study 1a and 1b), and that hedonic well-being and positive emotion items were strongly correlated, the positive emotion items may better represent happiness in this study. Taken together, the results of these studies indicate that individuals may consume material items because they believe that material items will be a better use of money, even though they anticipate more happiness and eudaimonic well-being from their experiential purchases.

These results suggest that when people are considering material or experiential purchases they are balancing happiness and monetary concerns. This seems reasonable as these two factors appear orthogonal – this was demonstrated by the near-zero correlations between the forecasts of well-being and the purchase being a good use of money in both Study 1a and Study 2. Further, we know that an individual's spending choice will be influenced to a greater degree by economic or well-being considerations, depending on the priority assigned to each (Hsee & Rottenstreich, 2004). For this reason, the goals of Study 3a and 3b were to (a) determine if considering a purchase to be a good use of money is more important when making decisions about material purchases and happiness more important when making decisions about experiential purchases, and (b) because of these differences in importance, if prioritizing monetary considerations when making spending decisions leads to more material consumption, whereas prioritizing happiness when making spending decisions leads to more experiential consumption.

Study 3: Does prioritizing monetary considerations lead to more material consumption?

Method

Participants

Participants in Study 3a ($n = 103$) were US adults ($M_{\text{age}} = 32.15$, $SD = 12.67$, range 18–70; 64% male and 66% Caucasian) recruited from Amazon's Mechanical Turk (i.e. Mturk; see Buhrmester, Kwang, & Gosling, 2011, for the validity of recruiting from Mturk) in order to determine the importance people attach to monetary considerations and happiness when deciding to purchase a material item or life experience. Participants in Study 3b ($n = 98$) were US adults ($M_{\text{age}} = 33.73$, $SD = 12.63$, range 18–72; 64.1% male and 76% Caucasian) recruited from Mturk in order to investigate the effect of prioritizing value, compared to prioritizing happiness, on the consumption of material items and life experiences.

Procedures

In order to understand the importance of economic value and happiness when deciding to make material and experiential purchases, we adapted a methodology used by Liberman and Trope (1998). We asked the participants to imagine themselves facing six buying decisions (e.g. imagine that you have the opportunity to buy a new watch), three material and three experiential, and to rate the importance of both happinesses (i.e. how important would it be that the watch contributed to your overall happiness in life?) and that a purchase is a good use of money (i.e. how important would it be that you felt this purchase was a good use of money and that your money was well-spent?) when they were deciding to purchase the items and experiences. Participants evaluated the importance of economic and well-being considerations for each purchase prompt by answering both of the above questions using a scale of completely unimportant (1) to very important (10). We also randomly assigned half the participants to rate the importance they attached to economic and happiness considerations when making these six purchases in the near future (i.e. tomorrow) or distant future (i.e. a year from now).

In Study 3b, we asked participants to imagine facing four buying decisions, each between a material and experiential purchase (see Study 4 of Van Boven and Gilovich for the four pairs of life experiences and material items). However, whereas Van Boven and Gilovich randomly assigned participants to choose between the two purchase types while manipulating temporal distance, we manipulated the choice task such that half of the participants made their decisions based on maximizing economic value (i.e. select the purchases you believe will allow you to say 'this was the best use of my money'), while the other half of the participants selected purchases based on maximizing their happiness in life (i.e. select the purchases you believe will allow you to say 'this purchase increased my happiness in life the most').

Based on the previous results from Study 1 and Study 2, we expected the economic considerations to be more important when deciding to purchase a material item compared to a life experience and happiness to be more important when deciding to purchase a life experience compared to a material item. Also, we hypothesized that prioritizing economic value would lead to more material consumption (as material items are forecasted to be better use of money), while prioritizing happiness would lead to more experiential consumption.

Results

First, we examined the importance ratings (Study 3a) to test our hypothesis that a purchase being a good use of

money is more important when buying material items and happiness is more important when buying life experiences. We conducted a Purchase Type (material vs. experiential) \times Importance (economic vs. happiness) \times Time (near vs. distant future) Mixed-factorial ANOVA, with purchase type and importance as within-subjects variable and time as a between-subjects variable. While there was a main effect of the purchase type (i.e. importance ratings were higher for life experiences compared to material items) and importance (money being well spent was more important than happiness), our expected Purchase Type \times Importance two-way interaction was significant, $F(1, 101) = 56.77, p < 0.001$. Specifically, a purchase being a good use of money is more important when deciding to purchase a material item ($M = 8.20$; $SD = 1.62$) compared to a life experience ($M = 7.42$; $SD = 1.75$; $F[1, 101] = 28.99, p < 0.001$); however, happiness is more important when deciding to purchase a life experience ($M = 7.07$; $SD = 1.86$) compared to a material item ($M = 5.74$; $SD = 1.99$; $F[1, 101] = 36.65, p < 0.001$). Also, this interaction was not moderated by time (i.e. the three-way interaction was not significant). This shows that regardless of when the purchase is going to occur (tomorrow vs. a year from now) economic considerations are more important when buying material items and happiness considerations are more important when buying life experiences.

Next, we examined if prioritizing economic value increased the consumption of material items, whereas prioritizing happiness increased the consumption of life experiences in Study 3b. From the four pairs of material items and life experiences, we summed the number of material items each participant would buy. As we predicted, when participants were instructed to maximize economic value they selected more material items ($M = 2.17$; $SD = 1.35$) than when they were instructed to maximize their happiness ($M = 1.27$; $SD = 1.07$; $t[96] = 3.61, p < 0.001$, Cohen's $d = 0.74$; see Figure 2). These results suggest that participants were forecasting that the material items would be a better use of their money and the life experiences would contribute to greater happiness. Taken together, Study 3a and 3b suggest that when people are influenced to a greater degree by economic, instead of well-being, considerations they are more likely to purchase a material item instead of a life experience, whereas the reverse is true when people are seeking greater happiness.

General discussion

The relationship between materialism and well-being is robust and negative (Kashdan & Breen, 2007; Richins & Dawson 1992; Tatzel, 2003). In fact, it may be precisely *what* individuals choose to buy that contributes or detracts from well-being (Dunn et al., 2011). Even

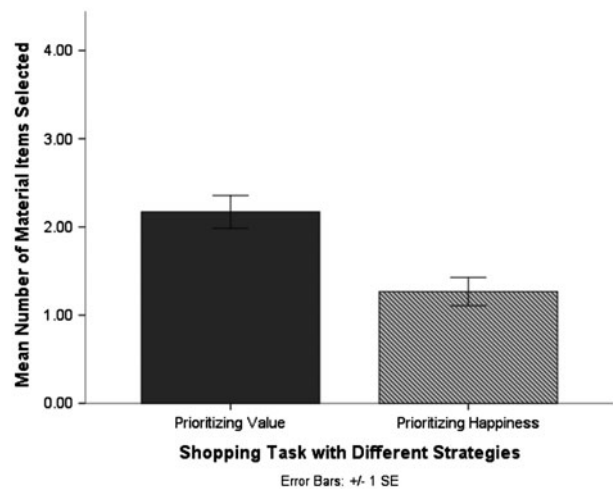


Figure 2. The figure shows how maximizing value during shopping leads to more material consumption. Participants were instructed to select material items or life experiences based on either maximizing their use of money on the purchases (i.e. this was the best use of my money) or maximizing their happiness in life (i.e. this purchase increased my happiness in life the most). When participants were instructed to maximize their monetary considerations, they selected more material items than when they were instructed to maximize their happiness, $t(96) = 3.61, p < 0.001$, Cohen's $d = 0.74$.

though experiential purchases contribute more to happiness, relatedness, identity, and are a better use of money compared to material purchases (Caprariello & Reis, 2013; Carter & Gilovich, 2010; Howell & Hill, 2009; Millar & Thomas, 2009; Nicolao et al., 2009), people still continue to acquire material possessions in the pursuit of happiness. Therefore, the primary goals of these studies were to (a) better understand what benefits people forecast for their material and experiential purchases, and (b) examine if their forecasts are accurate or inaccurate.

First, our results corroborate prior work indicating that in certain cases people make relatively accurate forecasts, especially when they expect a future event to be a positive one (Finkenauer et al., 2007; Kitchens et al., 2010; Sheldon et al., 2010). The cross-sectional and longitudinal results indicate that individuals accurately forecast greater happiness and eudaimonic well-being from their experiential purchases. On the other hand, some studies suggest that individuals commit forecasting underestimation errors (Andrade & Van Boven, 2010; Lench et al., 2011; Loewenstein & Adler, 1995; Pollai et al., 2009; Wilson & Gilbert, 2003; Wood & Bettman, 2007). Our results also support these findings as people tend to grossly underestimate how much their life experiences will be a good use of money. Finally, as Study 3a and 3b demonstrate, economic considerations are more important than happiness when buying material items,

and people are more likely to consume material items when they are attempting to maximize economic value instead of their happiness.

Balancing happiness with economic value

Our results suggest why people may choose to buy material items instead of life experiences. Given that individuals anticipate that material items will be a better use of money (Study 1 and 2), rate these economic considerations as more important than happiness when deciding to buy material items (Study 3a), and engage in more material consumption when they prioritize economic value (Study 3b), it appears that consumers who are focused on economic factors are inclined to spend money on material items. These economic factors include both objective and subjective value judgments, which encompass the practical and economic considerations pertaining to purchases. Consumers may choose purchases that represent higher economic value, rather than pleasure and enjoyment, when they rely on logical rules and ‘lay rationalism’ (Hsee, Zhang, Yu, & Xi, 2003). As such, the ‘lay rationalist’ may be especially likely to choose those options that encompass material, tangible, and economic gains.

Conversely, if an individual is focused on improving well-being and positive emotions, that person may be more inclined to spend money on life experiences. Importantly, people will make different spending choices depending on whether their decision is influenced to a greater degree by non-affective value calculations or emotional considerations (Hsee & Rottenstreich, 2004). Trope and Liberman (2003) found that people’s decisions can be impacted by cognitive or affective factors depending on one’s short-term and long-term goals. Specifically, consumers place more weight on hedonic predictions or pragmatic concerns, depending on which ones are most relevant. Thus, when seeking to make good use of one’s money, people may place more weight on factors pertaining to the practical and economic aspects of their purchasing decisions, whereas when attempting to maximize happiness people may prioritize features related to self-identify and personal values.

Finally, value-seeking prompts consumers to decide on purchases that have higher actual or perceived value, even when these choices are expected to bring less hedonic benefit (Hsee, 1999). Numerous studies show that a majority of people will forgo enjoyment for higher value (Arkes & Blumer, 1985; Hsee, 1999; Hsee et al., 2003). Ultimately, sacrificing well-being for monetary concerns is not problematic per se as individuals still obtain economic benefits. However, when people *underestimate* the extent to which their money will be well spent on life experiences, instead forecasting that material purchases will be a better use of money, they end up spending

money in ways that ultimately do not maximize perceived value. Unfortunately, because material expenditures do bring a certain level of positive emotions, well-being, and economic benefits, although less than experiences, people are unlikely to learn from their past purchase misforecasts (Gilbert & Wilson, 2007; Meyvis et al., 2010; Wilson et al., 2001). Therefore, because of a belief in the economic advantages of material items, people may struggle to optimize their spending choices.

Limitations and future direction

In order to further understand discrepancies between forecasts and evaluations, future research should include longitudinal studies with real-time assessment over longer time frames (as discussed by Howell & Guevarra, 2013). Though we did not assess intensity in these studies, it is important to measure the intensity of well-being in real time because in certain cases both forecasts and evaluations can be prone to ‘rosy’ biases (Mitchell et al., 1997). Also, the effects of a purchase may decrease quickly over time, lasting up to days or weeks (Finkenauer et al., 2007; Nicolao et al., 2009), and in certain cases even increase with time. Future researchers could conduct daily diary assessments that capture emotional and monetary reactions shortly after the purchase, while also assessing well-being that may last for several months.

Also, because we did not directly measure participants’ goals and priorities in relation to their purchase forecasts and recollections, we do not know how economic or hedonic motivations may have impacted participants’ purchase decisions or recollections. Given that material consumption is more impacted by economic considerations and experiential consumption is more influenced by well-being considerations, future experiments can assess the importance of hedonic and economic motivations in forecasting studies. This could assist in determining if placing more value on increased economic benefits or happiness would change forecasts, consumption, and evaluations. As Zhang, Howell, and Caprariello (2012) demonstrated, when individuals buy life experiences for extrinsic reasons (e.g. to gain recognition from others) they feel less autonomous, competent, and connected to others; therefore, we predict that buying life experiences when seeking to make a good use of one’s money may reduce the hedonic benefits of life experiences. For example, when people imagined spending \$50 and \$100 on two non-refundable trips that were to occur on the same weekend, the majority chose the more expensive trip due to its higher value, even though it was described as less enjoyable (Arkes & Blumer, 1985).

Further, although we found that a purchase being a good use of money is more important when deciding to purchase a material item and happiness is more important when deciding to purchase a life experience, this

interaction was not moderated by time. Previous studies have demonstrated that time can in fact moderate the importance of different features. For example, Liberman and Trope (1998), as predicted by construal level theory, found that people are more likely to prefer feasible events in the near future and desirable events in the distant future. Unlike Liberman and Trope, however, we did not find the importance attached to economic concerns for material consumption nor the importance attached to happiness considerations for life experiences to be moderated by time. Because we did not ask participants to first choose between the material items and life experiences in Study 3a, we may not have fully tested aspects of the construal level theory. Future research should ask people to make purchasing choices in the near and distant future, forecast happiness and economic value, and assess the importance of feasibility and desirability for those purchases. From this, we would learn if participants select material items in the near future because they are more feasible, whereas they select life experiences in the distant future because they are more desirable.

Finally, our sampling procedures could have impacted our findings – specifically, the quasi-experimental designs used in Study 1 and Study 2. Although controlling for individual differences in these studies did not change the results, there could be other unmeasured differences between those deciding to write about material and experiential purchases. That is, when individuals are randomly assigned to forecast a specific purchase type, we are able to infer something about their expectations and evaluations of material and experiential consumption. However, when people are allowed to select their own purchases to forecast and evaluate, then characteristics of the individuals may be contributing to the expectations and reports of their purchases. Given that measuring and controlling for possible individual differences can only reduce concerns relating to self-selection designs, we recommend that future research focus on experimental designs in order to more definitively rule out these differences. Further, even though our sampling procedures did not exclusively rely on student samples, it is quite possible that these results will not generalize to all populations, particularly to lower income groups. Given that people who are from less affluent households are likely to consider physical needs as more important, it is possible that lower income individuals may experience more happiness from their material possessions. For these reasons we encourage future researchers to replicate these studies on lower income samples in order to test the robustness of these findings.

Conclusions

Imagining how the future will unfold, consumers spend their discretionary money on purchases that may or may not live up to their expectations. Most

researches examining differences between material and experiential purchases have focused on the evaluations of recent purchases. Assessing people's forecasts for their future consumption is an important step in understanding when and why consumption fails to live up to expectations. When consumers are swayed by 'rational' rules and value-seeking, they may be more likely to forgo greater well-being of life experiences for the expected, though not realized, economic benefits of material items. Thus, at a time when consumers are surrounded by numerous spending opportunities, a more thorough understanding of the entire consumption experience (i.e. planning, buying, consuming, and remembering) is imperative for consumers to optimize their spending decisions.

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Appendix 1. Instructions for spending recall instructions for all studies

The instructions in Study 1a were: *We would like you to think about a time in the NEXT TWO WEEKS when you plan to use your money to pay for/buy something you think will make you happier. You can use your money in any way, as long as when you plan to spend it your goal is to increase the joy and happiness in your life. Go ahead and think of a time in the next two weeks that matches this description.*

Study 1b (all participants read the following instructions): *We would like you to think about a recent time when you used your money to pay for/buy something you thought would make you happier. You could have used your money in any way, as long as when you spent your money your goal was to increase the joy and happiness in your life. Go ahead and think of a time that matches this description.*

After writing the brief descriptions, participants read definitions of each purchase type and they self-categorized their purchases as either a material item or a life experience. Those who categorized their purchase as a material item then read:

We would like you to think about a recent time when you used your material item –that is, think about when you last: wore your jeans, watched your TV, listened to your iPod, looked at your artwork, etc. We would like you to remember this event as vividly as you can. Try to remember all the details when you used your material item last. Picture everything you did and felt in your ‘mind’s eye’; try to relive the surroundings as clearly as possible. See the people or objects; hear the sounds; experience this event all over again. Think the thoughts you actually thought. Feel the same feelings you felt.

Those who categorized their purchase as a life experience read:

We would like you to remember your experience as vividly as you can. We are not interested in your experience of making the purchase – but what you remember about the life experience itself. Try to remember all the details of your experience. Picture everything you did and felt in your ‘mind’s eye’; try to relive the surroundings as clearly as possible. See the people or objects; hear the sounds; relive this experience all over again. Think the thoughts you actually thought. Feel the same feelings you felt.