

# Seeking Lasting Enjoyment with Limited Money: Financial Constraints Increase Preference for Material Goods Over Experiences

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Consumers with limited discretionary money face important trade-offs when deciding how to spend it. In the current research, we suggest that feelings of financial constraint increase consumers' concern about the lasting utility of their purchases, which in turn increases their preference for material goods over experiences. The results of seven studies confirm that the consideration of financial constraints shifts consumers' preferences toward material goods (rather than experiences), and that this systematic shift is due to an increased concern about the longevity of the purchase. This preference shift persists even when the material goods are more frivolous than the experiences, indicating that the effect is not driven by an increased desire for sensible and justifiable purchases. However, the shift toward material purchases disappears when the material purchase is unusually short lived, further implicating concern about longevity as the key driver of the effect. Finally, the consideration of financial constraints increases preference for material purchases even when the potential memories that experiences can provide are made explicitly salient. Together, these results indicate that financially constrained consumers spend their discretionary money on material purchases as a means of securing long-term consumption utility.

AQ4<sup>25</sup>

Keywords: xxxx

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Mary Frances Luce and Gita Johar served as editors and Kristin Diehl served as associate editor for this article.

Advance Access publication XXXX XX, 2015

Many consumers feel financially constrained in their lives. Even before the Great Recession, 40% of Americans actively used budgets to manage their finances (MSN Money 2007), and a more recent survey found that nearly half of all Americans could be described as “financially fragile,” including nearly a quarter of American households with incomes between \$100,000 and \$150,000 a year (Lusardi, Schneider, and Tufano 2011). The current research focuses on how feeling financially constrained changes the attributes consumers consider when evaluating purchase options and how this subsequently affects preference. Specifically, we examine how financial constraints increase concern about the longevity of a purchase, and how this can systematically influence consumers' decisions to spend on material goods versus experiences—a trade-off with substantial consequences for well-being (e.g., Carter and Gilovich 2010; Dunn, Gilbert, and Wilson 2011; Nicolao, Irwin, and Goodman 2009; Van Boven and Gilovich 2003).

When spending desires exceed financial means, the alternative uses of limited resources are naturally more salient. Accordingly, financial constraints highlight opportunity costs (Spiller 2011) and encourage consumers to “stretch” their resources (Fernbach, Kan, and Lynch 2015). Building on this research, we suggest that financially constrained consumers may be more attracted to purchases that last over time. Choosing such purchases enables consumers to build an inventory of resources, guaranteeing that—even if they cannot make a later purchase—they will still have *something*. In turn, by having resources at a later time, lasting purchases may reduce the need for future expenditures. In sum, we propose that consumers who consider their financial constraints will want to spend their limited resources on purchases that will provide benefits both now and in the future.

We further propose that this increased concern about longevity can produce a systematic shift in consumers’ budget allocation—namely, in their preference for material goods versus experiences. Since research has identified experiences as frequently providing greater long-term happiness (e.g., Van Boven and Gilovich 2003), desire for lasting purchases could potentially increase preference for experiences. Yet this argument not only assumes that consumers realize that experiences can provide longer lasting happiness through the memories and social connectedness they create, but also that these long-term benefits will reduce the anticipated need for future spending. Instead, we propose that financially constrained consumers will rely on a more obvious discrepancy between material goods and experiences: material goods tend to physically persist over time, whereas experiences are fleeting by nature. This physical persistence of material goods ensures that a consumer will have something at a future point in time without needing to spend additional resources. We therefore expect feelings of financial constraint to shift consumers’ preference away from experiences and toward lasting material goods. Note that this preference shift is conditional on material goods being more enduring than experiences, which we suspect they are most of the time. Indeed, when we tested this intuition by asking 110 online participants to consider a material good and an experience that they planned to purchase, 98% of them expected to possess the material good for more time than the experience would last. Nevertheless, some material goods may be exceptionally short lived. In those specific cases, we would not expect financial constraints to increase preference for those goods.

We present seven studies that investigate the hypothesized relationship between financial constraints and preference for material goods. Our results indicate that the consideration of financial constraints shifts consumers’ preferences toward material goods (rather than experiences), and that this systematic shift is due to an increased concern for how long the purchase will last. We rule out

alternative explanations for this shift in preference, including a reduced interest in social interaction, an avoidance of risky outcomes, and effects of negative mood. Moreover, we find that the increased preference for material purchases in the face of financial constraints persists even when the material options are more frivolous than the experiences, indicating that the effect is not driven by an increased desire for sensible and justifiable purchases. We further demonstrate that when material options are unusually short lived, financial constraints no longer enhance preference for material purchases over experiences. Finally, we find that financially constrained consumers’ increased preference for material purchases persists, even when the potential memories that experiences can provide are made explicitly salient. This suggests that financially constrained consumers do not perceive these intangible benefits as reducing the need for future spending. Instead, financially constrained consumers seek out long-term consumption utility.

## THEORETICAL BACKGROUND

### Feeling Financially Constrained

We define feelings of financial constraint as the extent to which people believe that their financial situation restricts desired consumption. As such, feeling financially constrained is a psychological state that does not necessarily imply poverty or a literal absence of money. A millionaire, for example, may feel financially constrained if she feels her (high) income is not sufficient for fulfilling her consumption desires. Conversely, a person making minimum wage need not feel financially constrained if she does not have any salient consumption desires that exceed her financial means. Of course, keeping consumption desires constant, a reduction in income is likely to increase feelings of financial constraint.

Despite the relative prevalence of financial constraints in the United States (Lusardi et al. 2011; Moore 2013), research on its effect on consumption is still limited, with the majority of studies focusing on normative changes in nondiscretionary purchases. For instance, past research has shown that more financially constrained consumers reduce overall spending (Karlsson et al. 2004; Karlsson et al. 2005) and are more value and price conscious than less financially constrained consumers (Ailawadi, Neslin, and Gedenk 2001).

The present research focuses on discretionary purchases (i.e., non-necessities) and examines how feeling financially constrained changes how consumers allocate their limited discretionary income. Although financially constrained consumers do spend more on necessities than on discretionary purchases (Cole, Thompson, and Tufano 2008), they still spend a substantial amount of discretionary money. In fact, as of 2011, consumers making less

than \$25,000 annually still spent approximately \$5500 or more on discretionary purchases (Experian Simmons 2011). Yet little is known about how feeling financially constrained may influence these discretionary spending decisions.

### Financial Constraints and Preference for Lasting Purchases

A growing stream of research demonstrates that financial constraints increase the consideration of trade-offs, largely because having fewer resources requires making more frequent trade-offs (e.g., Mani et al. 2013; Shah, Mallainathan, and Shafir 2012). In some instances, the existing research finds that the attentional resources required by financial constraints result in myopic behavior (Shah et al. 2012). This work has primarily shown that financially constrained people are more likely to borrow against a future time period to gain resources for the present time period, even though it may cause difficulty later on (e.g., repayment with interest).

In the current research, we propose that when choosing among currently available discretionary purchases, financially constrained consumers may in fact act *less* myopically. That is, holding constant when a purchase is received, financially constrained consumers may care more about whether a purchase will provide benefits at a later time period. Consider two consumers who want to have consumption utility at time 1 and at time 2: Consumer A, who has plenty of resources, and Consumer B, who is financially constrained. If they make a purchase at time 1 and that purchase does not last over time, Consumer A can simply purchase something new at time 2, but Consumer B may not be able to do so. Thus compared to Consumer A, Consumer B is more likely to prefer a purchase that provides consumption utility both now and in the future, thus reducing her anticipated need to make another purchase at time 2. Note that in this example, in contrast to the previous research, the consumer obtains immediate benefits, regardless of her purchase decision. What varies is whether the purchase will *also* provide benefits in the future. Thus the decision is not about when to obtain a purchase, but rather, given the choice between two current purchases, whether the consumer cares how long the purchase will provide benefits.

The notion that financial constraints may increase concern about the lasting impact of one's purchase is consistent with existing research on financial constraints and decision making. For example, recent research demonstrates that consumers facing constraints try to plan ways efficiently to "stretch" their resources (Fernbach et al. 2015). One way of stretching resources is to invest in purchases that last over time. Furthermore, financially constrained consumers are more likely to consider that making a purchase today reduces the ability to make a purchase in

the future (Spiller 2011). We propose that realizing the reduced ability to make a future purchase sensitizes those consumers to the future benefits (or lack thereof) that can be secured by the current purchase. Thus rather than viewing a short-lived purchase as providing benefits in the present, financially constrained people may view it as providing benefits in the present *and* providing nothing in the future. As prior research on intertemporal choice has shown, making the lack of future payoff explicit should lead to less myopic choices (e.g., preferring [\$0 now and \$15 later] over [\$7 now and \$0 later]; Magen, Dweck, and Gross 2008). Finally, the current premise is consistent with recent research on savoring, which shows that when resources are scarce, people try to prolong positive experiences (Quoidbach et al. 2010). Thus we hypothesize:

**H1:** Feelings of financial constraint will increase consumers' concern for the longevity of a purchase.

### Financial Constraints and Preference for Material Goods versus Experiences

Being more attuned to the lasting impact of a purchase may systematically shift consumers' spending on different categories. In the current work, we explore the relative preference for material goods versus experiences—one of the most basic consumer trade-offs with substantial consequences for well-being (e.g., Carter and Gilovich 2010; Dunn et al. 2011; Nicolao et al. 2009; Van Boven and Gilovich 2003). Although one can conceptualize material versus experiential as a continuum on which purchases can be positioned depending on consumers' personal motivation for making the purchase (e.g., Van Boven and Gilovich 2003), we instead use the terms *material goods* and *experiences* to denote an objective, categorical distinction, consistent with the way consumers view their choices in the marketplace, as well as with the way it has been defined (Pine and Gilmore 1998) and operationalized (e.g., Carter and Gilovich 2010; Nicolao et al. 2009) in prior research. Material goods are tangible products that are typically retained over time, whereas experiences are intangible events that a person lives through.

The distinction between material goods and experiences is essential for several reasons. First, the categorization of purchases as material goods versus experiences is a distinction that consumers are aware of and readily recognize (e.g., Pine and Gilmore 1998; Van Boven and Gilovich 2003). Second, for decades, theorists and researchers have discussed the various ways that pursuing material goods versus experiences affects personal and societal well-being (e.g., Fromm [1976] 2013). More recent research has found that experiences can often provide greater long-term happiness than material goods (e.g., Van Boven and Gilovich 2003), leading to calls for consumers to spend their money

accordingly (e.g., [Dunn et al. 2011](#); [Dunn and Norton 2013](#)). However, little is currently known about why consumers purchase one type over the other. Third, and germane to the current work, the distinction between material goods and experiences is strongly linked to the longevity of the purchase.

If feeling financially constrained increases consumers' concern about the lasting impact of their purchases, how might this affect their preference for material goods versus experiences? As mentioned earlier, prior research has demonstrated that experiences can lead to greater long-term happiness than material goods. One of the primary reasons proposed for this difference in future happiness is that experiences provide more memories and storytelling capacity than material goods do. As a consequence, consumers think more about past experiences than about material purchases ([Van Boven and Gilovich 2003](#)), and they feature experiences more prominently in their self-narratives ([Carter and Gilovich 2012](#)), resulting in greater retrospective utility ([Elster and Loewenstein 1992](#)). Additionally, because experiences are often more social than material purchases, experiences are more likely to foster social connectedness ([Caprariello and Reis 2013](#)). Thus through memories, stories, and enhancing relationships with others, experiences often provide more long-term utility. If financially constrained consumers are trying to maximize future happiness, and if they readily anticipate the future utility from retrospection and social connectedness, then any increased concern about the lasting impact of their purchases might shift their spending toward experiences. However, if, as we suggest, financially constrained consumers seek purchases that last to reduce the anticipated need for future expenses, then the intangible long-term benefits of social connectedness and positive memories may not suffice. Indeed, these intangible benefits are likely benefits that people can continue to accumulate indefinitely. For example, people may not feel a reduced desire to travel once they return from a trip because they have the memories of the past trip. In fact, these memories may even heighten the desire to travel again. As such, the longevity of intangible benefits may not reduce the anticipated need for future expenses and thus fail to serve the long-term interests of financially constrained consumers.

Rather than being attracted to the intangible long-term benefits of experiences, we suggest that financially constrained consumers are more likely to be concerned with the lasting consumption utility they can derive from the purchase. Because material goods typically persist over time and thus provide continued consumption utility, a consumer who buys a material good has less need to make another purchase in the future. Thus if financially constrained consumers are looking for ways to make their purchases last to secure future resources and reduce the need for future spending, they should be attracted by the

physical persistence of material goods rather than by the intangible long-term benefits of experiences.

We therefore hypothesize:

**H2:** Feelings of financial constraint will increase consumers preference for material goods over experiences. 60

**H3:** Concern about the purchase longevity will mediate the effect of feelings of financial constraint on consumers preference for material purchases.

The mediating role of longevity suggests an important boundary condition for the effect of financial constraints on material preferences. Specifically, financially constrained consumers should only prefer material goods if those goods obviously last over time. Although most material purchases persist longer than most experiences, there are unusual cases in which the usefulness of a material purchase is short lived and will not reduce the need or desire for future spending (e.g., a set of glow sticks). In those cases, financially constrained consumers should not have a greater preference for the material good. Hence:

**H4:** Financially constrained consumers' increased preference for material purchases will be reduced when material purchases do not provide long-lasting consumption utility. 75

We test our hypotheses by examining how feelings of financial constraint influence participants' preferences for material goods versus experiences in a variety of shopping tasks. Across the studies, we both measure (studies 1–3) and manipulate (studies 4–7) feelings of financial constraint, and we vary the specific material goods and experiences participants consider across the studies, using both consumer-generated and standardized options. 85

## STUDY 1: CONSUMER-GENERATED EXPERIENCES AND GOODS

In study 1, we explored the relationship between consideration of financial constraints and preference for material goods versus experiences using participants' own desired purchases. Specifically, we examined whether the extent to which consumers spontaneously consider their real-life financial constraints predicts their relative preference for choosing (self-generated) material goods over experiences. We further investigated whether this relationship could be explained by changes in participants' self-reported concern about the longevity of the purchase. 95

### Method

A total of 254 Mechanical Turk (MTurk) participants completed the study in exchange for financial compensation. Fourteen participants failed an Instructional Manipulation Check (IMC) ([Oppenheimer, Meyvis, and](#) 100

Davidenko 2009; detailed later) and were excluded from all analyses.

Participants were asked to think about one material good and one experience that they would like to purchase.

Specifically, they read the following prompt:

Please think about one discretionary material good [experience] that you would like to purchase in the next few months. This purchase should cost more than \$50 but less than \$1,000. Please make sure that the purchase is discretionary (i.e., not a necessity), a material good (i.e., not an experience) [an experience (i.e., not a material good)].

The order of the material good and the experience was counterbalanced. The second prompt added the following request, “Ideally, it should be similar in price to the previous purchase you specified.” After each prompt, participants provided a short description of the purchase.

Next, participants were asked to imagine that they could only make one of the two purchases and to indicate which purchase they would make (using a 7-point scale: 1 = Definitely [experience], 7 = Definitely [material good], with each participant’s individually chosen material good and experience being listed within the brackets). We then measured financial constraints by asking participants to what extent they thought about their current financial constraints while considering which option they would purchase (1 = Not at all, 7 = Very much). Note that we chose to measure the salience of financial constraints rather than participants’ objective financial constraints, given that it is the consideration of the constraints that is expected to influence consumers’ choices (Weber and Johnson 2009). Next, we measured the proposed mediator by asking participants to what extent they had considered which of the two purchases would last longer (1 = Not at all, 7 = Very much).

As controls, we asked participants to self-code each of their purchases as being a material good or an experience (using a binary choice) and to indicate how the purchases compared on price (using a 3-point scale: -1 = [experience] is cheaper, 0 = they are similar in price, 1 = [material good] is cheaper). All participants then completed demographic questions including age, sex, and native language. Finally, participants answered an IMC question (Oppenheimer et al. 2009). This question asked participants to demonstrate that they were taking the time to read the instructions by ignoring the options below (i.e., “single”, “married/in a relationship,” and “divorced”) and instead type the word “neither” at the bottom of the choices. Participants who failed this check were excluded from all analyses. A similar IMC question was used in all subsequent studies.

## Results and Discussion

Twenty people indicated that their self-generated purchase was not of the requested type (i.e., indicated that their material good description was actually an experience

or vice versa) and are thus excluded from the analysis, leaving a final sample of 220 participants ( $M_{\text{age}} = 31.1$ ,  $SD = 9.7$ ; 59.1% male).

In line with hypothesis 2, consideration of financial constraints ( $M = 4.31$ ,  $SD = 2.14$ ) was positively correlated with preference for the self-generated material good over the self-generated experience ( $\beta = 0.18$ ,  $t(218) = 2.69$ ,  $p = .008$ ). Furthermore, participants who thought more about their financial constraints were also more concerned about the longevity of their purchase ( $\beta = 0.17$ ,  $t(218) = 2.56$ ,  $p = .011$ ), and this concern about longevity significantly predicted preference for the material good ( $\beta = .631$ ,  $t(218) = 11.99$ ,  $p < .001$ ). A bootstrapping test confirmed that the increased focus on longevity mediated the relationship between thinking about financial constraints and preference for the material good (95% confidence interval [CI], 0.02–0.21,  $n = 220$ ; 10,000 resamples; Preacher and Hayes 2008). Finally, after controlling for this mediation path, the relationship between consideration of financial constraints and preference was no longer reliable ( $\beta = 0.07$ ,  $t(217) = 1.38$ , NS).

In sum, we found initial evidence of a relationship between financial constraints and a preference for material goods. The more participants considered their financial constraints, the more likely they were to prefer the material good over the experience. This relationship was mediated by an increased concern about the longevity of their purchase. Note that this finding was not due to the material goods being systematically cheaper than the experiences because there was no systematic price difference between the purchase types. While 50 participants stated that their material good was cheaper, another 50 participants stated that their experience was cheaper (119 participants indicated they were similar in price and 1 participant declined to answer the question).

## STUDY 2: INCENTIVE-COMPATIBLE CHOICES

Although study 1 provided initial evidence of a relationship between financial constraints and a preference for material goods, the study had several limitations. First, people who naturally tend to consider financial constraints may think of different types of purchases (e.g., less attractive experiences and more attractive material goods) than people who do not. Additionally, the shift in preferences could be due to a belief that the material goods could be resold at a later time. Finally, because the results rely on positive correlations among items on 7-point scales, common methods bias could possibly account for the findings. In part to address these limitations, study 2 used gift cards as purchase options, specifically gift cards to stores that sell either relatively more material goods or relatively more experiences. While using gift cards was rather conservative since

observing a preference shift required participants to think about what they would buy with the gift card, it did offer some advantages over self-generated purchases. First, all participants considered the same “material good” and “experience” options. Second, both options could be resold. Finally, by using gift cards, we were able to make the choices incentive compatible by informing participants that some of them would receive all of their chosen options.

## Method

A total of 505 MTurk participants completed the study in exchange for financial compensation. Overall, 74 participants failed an IMC and were excluded from all analyses, leaving a final sample of 431 participants (54% male,  $M_{\text{age}} = 33.1$ ).

All participants received the same prompt to introduce the choice task and to explain the incentive-compatible structure. Specifically, participants read,

On the next few pages, you will make a choice between 5 sets of gift certificates that you might actually receive. All survey participants will be entered into a lottery. If you are one of the two winners of the lottery, you will receive ALL FIVE gift certificates that you've selected (each worth \$25 with a total value of \$125) to spend on yourself to increase your happiness. Therefore, keep in mind that these choices have real consequences as you may receive each of the gift certificates that you select.

Participants then saw five pairs of gift cards, each consisting of one gift card for a company that sells more material goods and one gift card for a company that sells more experiences, which had been pretested to be approximately equally desirable. For each pair, participants indicated which of the gift certificates they would rather receive using a binary choice. We randomized both the order of the five pairs as well as the position of the “material good” and “experience” gift card within each pair. The same randomization procedure was followed in all subsequent studies.

As in study 1, we asked participants after the choice task to what extent they thought about their current financial constraints while choosing between the gift certificates (1 = Not at all, 7 = Very much). In addition, we subsequently asked participants to what extent they felt financially constrained (1 = Not financially constrained at all, 7 = Very financially constrained), which we expected would be significantly correlated with how much they considered their financial constraints during the choice task. We did not measure concerns about longevity.

All participants then completed demographic questions including age, sex, native language, and income. Finally, participants answered an IMC question.

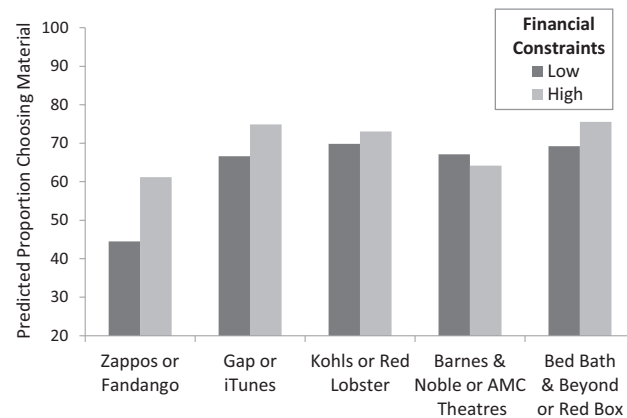
## Results and Discussion

We summed the number of material gift cards that each participant chose (for a possible score from zero to 5) and

FIGURE 1

PROPORTION OF PARTICIPANTS CHOOSING THE MATERIAL OPTION, ACROSS FIVE REPLICATES, BY SELF-REPORTED CONSIDERATION OF FINANCIAL CONSTRAINTS (STUDY 2)

NOTE.— Low: Mean – 1SD; High: Mean + 1SD



regressed this number on the extent to which they considered their financial constraints while choosing between gift cards. As predicted, participants who thought more about their financial constraints chose a greater number of material gift cards ( $\beta = 0.12$ ,  $t(429) = 2.58$ ,  $p = .010$ ). Figure 1 shows the preference for the material good in each pair at different levels of self-reported consideration of financial constraints (based on the regression slopes).

Participants in this MTurk sample generally felt financially constrained, given that self-reported feelings of financial constraint were relatively high ( $M = 5.00$ ,  $SD = 1.66$ ). Furthermore, self-reported financial constraint ( $M = 4.56$ ,  $SD = 2.03$ ) was positively correlated with the consideration of constraints during choice ( $r = .56$ ,  $p < .001$ ) and showed a nonsignificant association with more material choices ( $\beta = 0.08$ ,  $t(429) = 1.63$ ,  $p = .104$ ).

In sum, we replicated the relationship between consideration of financial constraints and material preferences with consequential choices of gift cards. The more participants considered their financial constraints, the more likely they were to choose gift cards to stores that sell more material goods. A similar relationship was found between general feelings of financial constraint and preference for the material gift cards. However, this latter relationship was considerably weaker, indicating that it is the awareness of these constraints during the purchase decision that is shifting consumers' preferences toward the material options.

## STUDY 3: FRIVOLOUS MATERIAL PURCHASES

The aim of study 3 was to rule out two potential alternative explanations for our earlier findings. First, it is

possible that financially constrained consumers may prefer material goods because they are trying to avoid frivolous or wasteful purchases—assuming that experiences are generally seen as less essential than material goods. For instance, participants could have imagined buying more useful items with the “material good” gift cards compared to the “experience” gift cards. Study 3 tested this plausible alternative account by examining whether consumers who consider their financial constraints are still more likely to prefer material options when those material options are perceived as *more* frivolous and wasteful than the experiences.

Second, we sought to provide additional evidence for the role of longevity. Although we asked participants how much they considered longevity in the first study, longevity was the only reason examined. In study 3, we measured the consideration of multiple reasons (including longevity), to ensure that people who consider their financial constraints are not simply selecting any reason provided to demonstrate they have thought carefully about their choice.

## Method

A total of 203 MTurk participants completed the study in exchange for financial compensation. Nineteen participants failed an IMC and were excluded from all analyses, leaving a final sample of 184 participants (57% male,  $M_{\text{age}} = 33.3$ ).

Participants completed a hypothetical shopping task. They were shown five pairs of items, each consisting of one material good and one experience, and asked to indicate their preference between the options using an unnumbered 9-point scale anchored by “More likely to buy A” and “More likely to buy B.” The options were selected so that, in each of the pairs, the material option seemed more frivolous and wasteful than the experience (e.g., a revolving tie rack versus dinner at an Indian restaurant), as established in a separate pretest (frivolousness:  $M_{\text{material}} = 4.86$ ,  $SD = 1.84$ ;  $M_{\text{experience}} = 4.16$ ,  $SD = 1.77$ ;  $F(1, 190) = 11.83$ ,  $p < .001$ ; wastefulness:  $M_{\text{material}} = 4.47$ ,  $SD = 1.91$ ;  $M_{\text{experience}} = 3.79$ ,  $SD = 1.71$ ;  $F(1, 190) = 10.39$ ,  $p = .002$ ; the list of options is available in the web appendix).

After the shopping task, we asked participants to indicate the reasons for their choices by selecting from the following options: (1) “How much I liked one of the options,” (2) “How much I disliked one of the options,” (3) “How long my chosen option would last for,” and (4) “Other” (next to which participants could write a reason of their own). They did this for each of the five pairs they had just considered. We separated liking and disliking as possible reasons to test for the alternative account that more financially constrained participants may be less attracted to experiences because experiences seem less pleasurable

when in a negative mood. Such an inability to enjoy experiences may be reflected in reduced liking or increased disliking.

At the end of the survey, we used two questions to measure the extent to which participants were considering their financial constraints while making their choices (i.e., the salience of their financial constraints): “To what extent did you think about your current financial situation while making your choices in the shopping task?” (1 = Not at all, 7 = Very much) and “To what extent did you think about your current financial constraints while making your choices in the shopping task?” (1 = Not at all, 7 = Very much). Participants then completed demographic questions including age, sex, native language, and income. Finally, participants answered an IMC question.

## Results and Discussion

*Financial Constraints.* The two questions measuring participants’ consideration of their financial constraints were highly correlated and thus averaged and pooled ( $\alpha = .97$ ;  $M = 3.28$ ,  $SD = 2.09$ ).

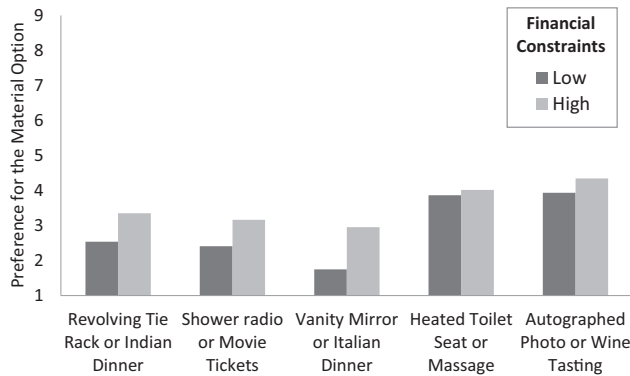
*Preference.* In this study and in subsequent studies, participants’ shopping decisions were coded so that higher numbers indicate a preference for the material goods. As predicted, a repeated-measures analysis of variance (ANOVA) with pair as a within-subjects variable and consideration of financial constraints as a continuous between-subjects variable revealed a significant effect of financial constraints. In line with hypothesis 2, participants who thought more about their financial constraints were more likely to prefer the material goods ( $F(1, 182) = 8.69$ ,  $p = .004$ ). This pattern of results did not reliably differ across pairs ( $F(4, 728) = 1.03$ , NS). Figure 2 shows the results by pair.

*Reasons.* Scores for liking, disliking, and longevity were computed by summing the number of times a participant selected the respective reason across all five pairs. We regressed these sums on participants’ consideration of financial constraints. In line with hypothesis 1, the more participants considered their financial constraints, the more often they selected longevity as the reason for their choices ( $\beta = 0.29$ ,  $t(182) = 4.07$ ,  $p < .001$ ), and this concern about longevity significantly predicted preference for the material goods ( $\beta = 0.58$ ,  $t(182) = 9.67$ ,  $p < .001$ ). A bootstrapping test confirmed that an increased focus on longevity mediated the relationship between thinking about financial constraints and preference for the material goods (95% CI, 0.06–0.20;  $n = 184$ ; 10,000 resamples). After controlling for this mediation path, the relationship between financial constraints and preference was no longer reliable ( $\beta = 0.05$ ,  $t < 1$ ). Neither liking nor disliking was significantly related to participants’ consideration of their financial constraints (liking:  $\beta = 0.11$ ,  $t(182) = 1.48$ , NS; 105

**FIGURE 2**

PREFERENCE FOR THE MATERIAL OPTION, ACROSS FIVE REPLICATES, BY SELF-REPORTED CONSIDERATION OF FINANCIAL CONSTRAINTS (STUDY 3)

NOTE.— Low: Mean – 1SD; High: Mean + 1SD



disliking:  $\beta = -0.10$ ,  $t(182) = -1.33$ , NS). This suggests that the effect of considering financial constraints on preferences was not driven by a decreased liking (or enhanced disliking) of the experiences.

In sum, study 3 demonstrates that consumers who consider their financial constraints have an increased preference for material goods over experiences—even when those material goods are more frivolous and wasteful. Thus the shift toward material purchases does not constitute a shift toward more practical or prudent expenditures, but rather coincides with an increased concern about the longevity of the purchase.

**Posttest**

New research indicates that it may be easier to justify material goods compared to experiences (Dalton and Goodman 2014), which suggests a possible alternative account for the effect of financial constraints on material preferences. Although the material options in study 3 were seen as significantly more frivolous and wasteful than the experiences, it is possible that the ability to justify a purchase is orthogonal to this. To address this concern, we conducted a posttest asking participants to rate explicitly how easy or hard it would be to justify each of the 10 purchases used in study 3 on a 7-point scale (1 = Very easy, 7 = Very hard). In all pairs, the material good was rated as more difficult to justify than the experience (all  $t > 2.49$ ,  $p < .015$ ). Thus the results of study 3 indicate that consideration of financial constraints increases consumers' preference for material goods over experiences, even when those material purchases are both more frivolous and harder to justify.

**STUDY 4: MANIPULATING THE SALIENCE OF FINANCIAL CONSTRAINTS**

Although the first three studies provide evidence consistent with our hypotheses, they all rely on correlational data. We can therefore not rule out that these findings are the result of a third variable that happens to correlate with consideration of financial constraints. In study 4, we addressed this by directly manipulating the salience of consumers' financial constraints and testing how this manipulation affects consumers' preference for material goods over experiences. Additionally, in this study, we used pairs that were more typical of discretionary purchases than the rather unusual options used in study 3 (e.g., revolving tie rack), and that were pretested to make sure that, in each pair, the material good and the experience were similar in value and desirability.

**Method**

A total of 195 MTurk participants (51.5% male,  $M_{age} = 34.2$ ) completed the study in exchange for financial compensation. Thirty-three participants failed an IMC. However, unlike in the other studies, the number of people failing the IMC differed by condition ( $\chi^2(1) = 4.60$ ,  $p = .03$ ): more participants were excluded in the financial constraint condition (21/91) than in the control condition (12/104). To avoid concerns of noncomparability, we did not remove any participants in this study.

We manipulated the extent to which participants considered their financial constraints while making their choices. Specifically, participants in the financial constraint condition were asked to consider their current financial situation using the following instructions:

Please describe your current financial situation. For example, do you have to be careful with how you spend your money? Do you sometimes feel as though you cannot spend your money on what you want? Would you consider yourself financially constrained? Or, would you consider yourself financially comfortable? Do you feel as though you have the financial resources to live the way you want? Please take a few minutes and describe your financial situation in as much detail as possible.

They were then given another short essay prompt that asked:

Now, please list the aspects of your daily life and spending decisions that are affected by your current financial situation.

Note that this is a conservative manipulation since the prompt does not explicitly force participants to think only about constraints, but rather about their financial situation in general. This was done to minimize any potential



demand effects. However, because participants' reports of their financial situation and their financial constraints correlated so highly in the previous study, and because the previous studies suggest that this population is generally financially constrained, we assumed that most respondents would feel financially constrained when considering their current financial situation. Participants in the control condition were not given any essay prompt.

As in study 3, participants then completed a hypothetical shopping task that was introduced as follows: "Imagine that these are actual choices you have to make given the financial situation that you are currently in" (in the financial constraint condition) or "Imagine that these are actual choices you have to make" (in the control condition). The shopping task again included five pairs, each consisting of one material good and one experience. Each pair of options was equated on desirability, expected happiness at time of purchase, and value at the stated price in a pretest using a different MTurk sample (see web appendix). Participants indicated their preference on an unnumbered 9-point scale anchored by "More likely to buy A" and "More likely to buy B." After the shopping task, participants were asked to indicate the reasons for their choices using the same questions as used in study 3.

To ensure that our subtle manipulation caused participants to think about their financial constraints, we presented participants with the following manipulation check: "To what extent did you think about your current financial situation while making your choices in the shopping task?" (7-point scale, 1 = Not at all, 7 = Very much). We also asked participants to what extent they felt financially constrained (1 = Not at all, 7 = Very much). Participants then completed demographic questions including age, sex, native language, and income. Finally, participants answered an IMC question.

### Results and Discussion

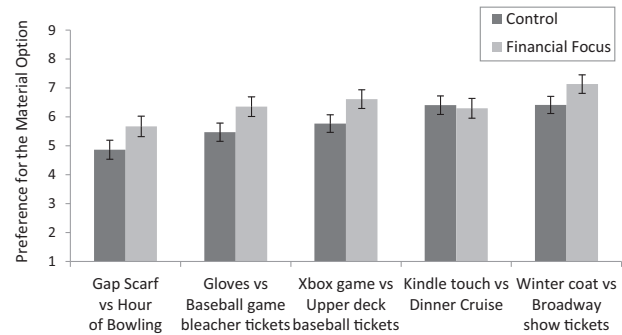
**Manipulation Check.** As intended, participants who had written about their financial situation reported thinking about their financial situation more ( $M_{\text{financial}} = 5.63$ ,  $SD = 1.70$ ) than did participants in the control condition ( $M_{\text{control}} = 3.82$ ,  $SD = 2.30$ ;  $F(1, 193) = 38.09$ ,  $p < .001$ ). Additionally, participants who had written about their financial situation reported feeling more financially constrained ( $M_{\text{financial}} = 5.32$ ,  $SD = 1.74$ ) compared to participants in the control condition ( $M_{\text{control}} = 4.78$ ,  $SD = 1.82$ ;  $F(1, 193) = 4.45$ ,  $p = .036$ ).

**Preference.** A repeated-measures ANOVA with pair as a within-subjects factor and financial constraint condition as the between-subjects factor revealed a significant effect of the financial constraint manipulation. As predicted, participants who considered their financial constraints were more likely to prefer the material goods than were

FIGURE 3

PREFERENCE FOR THE MATERIAL OPTION, ACROSS FIVE REPLICATES, BY CONDITION (STUDY 4)

NOTE.— Error bars represent standard error of the mean.



participants in the control condition ( $F(1, 193) = 5.04$ ,  $p = .026$ ). This effect did not differ across pairs ( $F < 1$ ) (figure 3).

**Reasons.** As in study 3, we summed the number of times a participant selected liking, disliking, and longevity as a reason for their choice. In line with hypothesis 1, participants who considered their financial constraints were significantly more likely to select longevity as a reason for their choice ( $M_{\text{financial}} = 2.80$ ,  $SD = 1.69$ ;  $M_{\text{control}} = 1.80$ ,  $SD = 1.59$ ;  $F(1, 193) = 18.19$ ,  $p < .001$ ), and concern about longevity significantly predicted preference for the material goods ( $\beta = 0.53$ ,  $t(193) = 8.63$ ,  $p < .001$ ). A bootstrapping test confirmed that the increased concern about longevity significantly mediated the effect of the financial constraint manipulation on preference for the material goods (95% CI,  $-0.32$ – $0.97$ ;  $n = 195$ ; 10,000 resamples). Finally, after controlling for this mediation path, the effect of condition on preference was no longer reliable ( $\beta < 0.01$ ,  $t < 1$ ).

Unlike in study 3, the consideration of financial constraints also influenced the selection of liking or disliking as a reason for the choices. As mentioned earlier, if financial constraints induce a negative mood that makes experiences seem less enjoyable, then this could decrease the selection of liking and increase the selection of disliking. Participants in the financial constraint condition were indeed less likely to select liking as a reason for their choice ( $M_{\text{financial}} = 2.78$ ,  $SD = 1.69$ ;  $M_{\text{control}} = 3.35$ ,  $SD = 2.78$ ;  $F(1, 193) = 6.24$ ,  $p = .013$ ). However, those participants were also less likely to select disliking as a reason for their choice ( $M_{\text{financial}} = 1.18$ ,  $SD = 1.46$  vs.  $M_{\text{control}} = 1.66$ ,  $SD = 1.47$ ;  $F(1, 160) = 5.40$ ,  $p = .021$ ). Since the overall number of reasons selected did not vary by condition ( $F < 1$ ), this suggests that the consideration of financial

constraints shifted the focus toward longevity at the expense of both liking and disliking. However, it is still possible that the reduced liking reflects an effect of negative mood, which we examine in the next study.

5 In sum, participants who were asked to think about their real financial constraints prior to a shopping task were more likely to prefer material goods. This effect was mediated by a heightened concern about the longevity of the purchase. Thus this study provides causal evidence that  
10 thinking about financial constraints makes consumers more concerned about the lasting impact of their purchase, which in turn increases preference for material goods over experiences.

### 15 STUDY 5: HOLDING PURCHASE GOAL CONSTANT

Study 5 extends the previous studies in three important ways. First, a potential concern in the previous studies is that the material goods and experiences differed in many  
20 ways. That being said, none of these differences (other than being a material good versus an experience) occurred systematically across all pairs, which is critical given that the effect of financial constraints did not vary between pairs in any of the preceding studies. However, it is still possible that the options used in previous studies were seen  
25 as fulfilling a different set of needs (e.g., making a fashion statement vs. being sociable) and that the effect depends on this difference in need fulfillment. Therefore, in study 5, we use a scenario for each pair that keeps the purchase goal constant (e.g., getting in shape) while offering a material  
30 good (e.g., gym equipment) and an experience (e.g., gym membership) to fulfill this purchase goal.

Second, a potential concern with the measurement of participants' self-reported reasons for the choices is that longevity was the only reason that systematically differed  
35 between material goods and experiences. In study 5, we address this by including multiple attributes that systematically differ across material goods and experiences in the list of reasons provided to participants. In addition to how long the options last, we include how social the options are, since experiences are typically shared with others  
40 (Caprariello and Reis 2013). We also include how risky the options are perceived to be, given that experiences are perceived to be more risky than material goods (Murray and Schlacter 1990) and participants may be concerned that the  
45 experiences will turn out poorly, which could reduce long-term happiness (Nicolao et al. 2009). Finally, we also included how normatively appropriate the options are to provide an additional test of the ease of justification alternative account.

50 Study 5 was also designed to rule out more conclusively another important alternative explanation: considering financial constraints puts people in a negative mood, which

in turn increases their preference for material purchases—since it may be harder to enjoy experiences when in a negative mood. It is possible that the reduced liking in the  
55 previous study was capturing the effect of mood on preference. We therefore explicitly measure mood in study 5.

### Method

A total of 407 MTurk participants completed the computer-based study in exchange for financial compensation. 60 Thirty participants failed an IMC and were excluded from all analyses, leaving a final sample of 377 participants (60% male,  $M_{age} = 32.3$ ).

We again manipulated the salience of financial constraints. However, we used a stronger manipulation than in the previous study by asking participants to think about the factors contributing to their financial constraints (rather than asking them to think about their financial situation in  
65 general):

Everyone has financial constraints in their lives, but the factors that contribute to these constraints tend to vary. What are the factors that require you to be careful with how you spend your money? What limits your monthly discretionary income? Include the aspects of your current situation that  
75 most contribute to your financial constraints (e.g., mortgage or rent, family expenses, uncertainty of future income, health care costs, student loans, lack of income, limited savings, bills that need to be paid, expensiveness of entertainment . . .). Please be as detailed as possible, and write at  
80 least a couple of sentences.

To provide a similarly demanding task for participants in the control condition, we asked them to list 10 facts that they knew to be true (adapted from Vohs, Lasaleta, and  
85 Chaplin 2014).

Participants next read five scenarios in which they had decided to spend money for a specific purpose (e.g., getting in shape) and could do so in two ways, one of which was a material good (e.g., buying gym equipment) and one of which was an experience (e.g., buying a gym membership).  
90 See web appendix for the scenarios and options provided. For each scenario, participants indicated their preference between the two options on a 7-point scale. After the shopping task, participants were asked to indicate the reasons for their choices. In addition to how long each option  
95 would last, the possible reasons provided in this study included the social nature of the options, the possible risk resulting from each choice, and which option they felt was normatively appropriate to choose, as well as a field in which they could type their own reason. 100

As a manipulation check, participants were asked to what extent they thought about their financial constraints while making their choices (1 = Not at all, 7 = Very much). As in previous studies, we also asked participants

to what extent they felt financially constrained (1 = Not at all, 7 = Very much). To further examine the mood explanation, we next presented a four-item mood measure. Participants were asked to indicate the extent to which they felt happy, felt sad, were in a good mood, or were in a bad mood (1 = Not at all, 7 = Very). Participants completed demographic questions including age, sex, and native language. Finally, participants answered an IMC question.

## Results and Discussion

*Manipulation Check.* As intended, participants who had written about their financial constraints reported thinking about their financial constraints more ( $M_{\text{financial}} = 5.61$ ,  $SD = 1.62$ ) than did participants in the control condition ( $M_{\text{control}} = 4.19$ ,  $SD = 2.09$ ;  $F(1, 375) = 53.91$ ,  $p < .001$ ). Additionally, while participants generally felt financially constrained, participants in the financial constraint condition reported feeling more financially constrained than those in the control condition ( $M_{\text{financial}} = 5.43$ ,  $SD = 1.546$ ;  $M_{\text{control}} = 5.02$ ,  $SD = 1.65$ ;  $F(1, 375) = 6.48$ ,  $p = .011$ ).

*Preference.* A repeated-measures ANOVA with pair as a within-subjects factor and financial constraints as a between-subjects factor revealed a significant effect of financial constraints. As predicted, participants who were asked to consider their financial constraints were more likely to prefer the material options than were participants in the control condition ( $F(1, 375) = 10.02$ ,  $p = .002$ ). This effect again did not differ across pairs ( $F(4, 1500) = 1.24$ , NS). The results for the five scenarios are shown in figure 4.

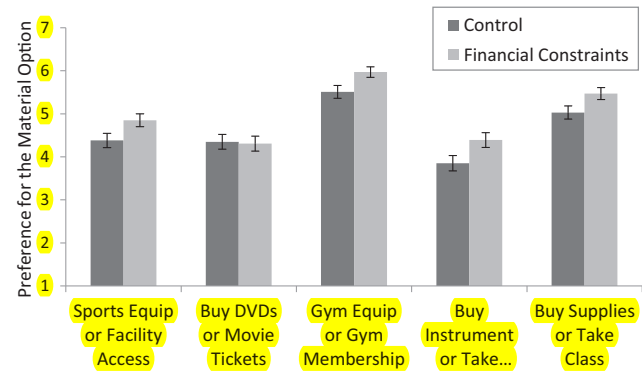
*Reasons.* As in the previous studies, we summed the number of times a participant selected longevity as a reason for his or her choice. As predicted, participants who were asked to consider their financial constraints were more likely to select longevity as a reason for their choice ( $M_{\text{financial}} = 3.54$ ,  $SD = 1.40$ ;  $M_{\text{control}} = 3.14$ ,  $SD = 1.49$ ;  $F(1, 375) = 7.15$ ,  $p = .008$ ), and this concern about longevity significantly predicted preference for the material goods ( $\beta = 0.40$ ,  $t(375) = 8.39$ ,  $p < .001$ ). A bootstrapping test confirmed that the increased concern about longevity mediated the effect of the financial constraint manipulation on preference for the material options (95% CI,  $-0.03$ – $0.23$ ;  $n = 377$ ; 10,000 resamples). Finally, after controlling for this mediation path, the effect of condition on preference was weaker but still reliable ( $\beta = 0.11$ ,  $t(374) = 2.29$ ,  $p = .022$ ).

We next examined whether any of the alternative reasons (the social nature, the risky consequences, the normative appropriateness, or any reason provided by the participant) could similarly account for the effect of financial constraints on participants' preferences. There were no significant differences between conditions in the number of times that any of these alternative reasons were

**FIGURE 4**

**PREFERENCE FOR THE MATERIAL OPTION, ACROSS FIVE REPLICATES, BY CONDITION (STUDY 5)**

NOTE.— Error bars represent standard error of the mean.



mentioned (all  $F(1, 375) < 2.16$ , NS). However, although the financial constraint manipulation did not affect participants' likelihood of selecting any of the alternative reasons, it may instead have affected the *impact* of these reasons. For instance, participants in the control condition may have selected the social reason as an argument for selecting the experience (i.e., being social is positive), whereas participants in the financial constraint condition may have selected the social reason as an argument for *avoiding* the experience (i.e., being social is negative). If this were the case, then selecting the social reason would be negatively correlated with preference for the material option in the control condition but positively correlated with preference for the material option in the financial constraints condition. However, this correlation was similarly negative in both conditions (control:  $r = -.16$ ; financial constraints:  $r = -.28$ ; difference:  $z = 1.26$ , NS). In the same way, the two conditions also did not differ in the relationship between preference for the material options and selecting risk as a reason (control:  $r = -.10$ ; financial constraints:  $r = -.19$ ; difference:  $z = 0.92$ , NS) or selecting normative appropriateness as a reason (control:  $r = -.13$ ; financial constraints:  $r = -.09$ ;  $z = -0.40$ , NS). Thus not only did the manipulation not affect the likelihood of selecting any of the alternative reasons, it also did not affect the impact of these alternative reasons.

Finally, we assessed the effect of mood. The two negative mood measures were reverse coded so that higher numbers indicated less negative moods. The four mood measures were then combined into a single composite measure ( $\alpha = .85$ ). Not surprisingly, participants who wrote about their financial constraints reported a less positive mood than those in the control condition ( $M_{\text{financial}} = 5.14$ ,  $SD = 1.28$ ;  $M_{\text{control}} = 5.44$ ,  $SD = 1.14$ ;  $F(1, 375) = 5.87$ ,

$p = .016$ ). However, mood did not mediate the relationship between the financial constraint manipulation and preference for the material option (95% CI,  $-0.08$  to  $-0.97$ ;  $n = 377$ ; 10,000 resamples).

5 In sum, participants asked to consider their real financial constraints were more likely to prefer material purchases even when both the material good and the experience served the same purchase goal. This effect was mediated by a heightened concern about the longevity of the purchase. Thus this study provides additional evidence that consumers who think more about their financial constraints are more likely to consider how long their purchase will last, which in turn increases preference for material goods over experiences. There were no significant differences on other potential differences between material goods and experiences including the riskiness of the option, the social nature of the option, or whether it seemed normatively appropriate. Finally, while considering financial constraints did negatively affect participants' mood, this mood difference did not drive their increased preference for material goods.

## STUDY 6: MODERATION BY LONGEVITY

We have proposed that financial constraints increase the desire for purchases that will provide utility over time, thus reducing the anticipated need for future expenditures. This suggests a clear boundary condition for the effect: consideration of financial constraints should not increase preference for material goods if these goods do not provide lasting utility. In all of the previous studies, we compared experiences that are limited in time to material purchases that provide extended utility over time. While material goods do indeed last longer than experiences in most cases (as evidenced by both a pretest and study 1), there are some material purchases that do not provide lasting utility. For example, a single-use disposable poncho is a tangible physical product and thus is a material good. However, since this poncho is only used once, for a short time, we do not expect that considering financial constraints would increase preference for the poncho over an experience (such as buying a cup of coffee). Note that a disposable poncho may still be used for longer than it takes to drink a cup of coffee. However, its disposable nature does not make it a suitable option for securing lasting utility and reducing the need for future expenses.

45 Study 6 tested this proposed boundary condition as follows. After manipulating the consideration of financial constraints, we provided participants with a series of four scenarios, each of which involved a choice between an experience and a material good. Critically, some participants were asked to choose between experiences and long-lasting material options (as before), whereas others were asked to make choices between experiences and short-lived material

options. Thus study 6 was a 2 (financial constraints: salient vs. not)  $\times$  2 (material longevity: long lasting vs. short lived) between-subjects design. We predicted that making financial constraints salient would increase participants' preference for the material options but only when these options were long lasting.

## Method

A total of 404 MTurk participants completed the computer-based study in exchange for financial compensation. Thirty-four participants failed an IMC and were excluded from all analyses, leaving a final sample of 370 participants (59% male,  $M_{age} = 29.9$ ).

We manipulated the salience of financial constraints using the same procedure as used in study 5. Participants next read four scenarios in which they imagined needing to spend money for a specific purpose (e.g., staying dry in the rain) and could do so by purchasing either a material good or an experience. All participants were presented with the same experience (e.g., buy a drink at Starbucks and wait for the rain to pass), while the material option differed by material longevity condition. Some participants were presented with a long-lasting material option (e.g., a reusable poncho), whereas others saw a short-lived material option (e.g., a single-use disposable poncho). See web appendix for the scenarios and options provided. For each scenario, participants indicated their preference between the material good and the experience on a 7-point scale.

As a manipulation check, participants were asked to report how much they thought about their financial constraints while making their choices (1 = Not at all, 7 = Very much). As in previous studies, we also asked participants to what extent they felt financially constrained (1 = Not at all, 7 = Very much). Participants completed demographic questions including age, sex, and native language. Finally, participants answered an IMC question.

## Results and Discussion

*Manipulation Check.* As intended, participants who had written about their financial constraints reported thinking about their financial constraints more ( $M_{financial} = 5.09$ ,  $SD = 1.86$ ) than did participants in the control condition ( $M_{control} = 4.12$ ,  $SD = 2.06$ ;  $F(1, 366) = 20.93$ ,  $p < .001$ ). Additionally, participants in the financial constraint condition reported feeling more financially constrained than did those in the control condition ( $M_{financial} = 5.38$ ,  $SD = 1.54$ ;  $M_{control} = 4.83$ ,  $SD = 1.73$ ;  $F(1, 366) = 10.60$ ,  $p = .001$ ).

There was an unexpected marginally significant effect of material condition on thinking about financial constraints. Participants were more likely to think about their financial constraints in the long-lasting material condition ( $M_{long} = 4.84$ ,  $SD = 1.96$ ) than in the short-lived material

condition ( $M_{\text{short}} = 4.36$ ,  $SD = 2.05$ ;  $F(1, 366) = 3.72$ ,  $p = .055$ ).

*Preference.* A repeated-measures ANOVA revealed a significant interaction of financial constraint and material longevity ( $F(1, 366) = 12.58$ ,  $p < .001$ ). In the long-lasting material condition, participants who considered their financial constraints showed an increased preference for the material options compared to those who did not consider their financial constraints ( $F(1, 366) = 9.16$ ,  $p = .003$ ), thus replicating previous results. However, in the short-lived material condition, thinking about financial constraints actually reduced participants' preference for the material options ( $F(1, 366) = 3.95$ ,  $p = .048$ ). This pattern of results did not differ across the four scenarios ( $F < 1$ ). Results for the four scenarios are shown in figure 5.

We earlier reported an unexpected effect of the material longevity manipulation on participants' consideration of their financial constraints. This effect suggests a possible alternative explanation for our findings. The reduced impact of financial constraints in the short-lived material condition may have been due to the reduced strength of the financial constraint manipulation, rather than a reduced impact of those financial constraints. However, two findings are inconsistent with this interpretation. First, we observe a reversal in the short-lived material condition, which is not in line with a difference in magnitude interpretation. Second, the relationship of self-reported consideration of financial constraints with preference for material options differs between conditions ( $z = -3.92$ ,  $p < .001$ ). Participants' self-reported consideration of financial constraints is positively correlated with preference for the material options in the long-lasting material condition

( $r = .39$ ,  $p < .001$ ), but not in the short-lived material condition ( $r = .01$ , NS). These findings are consistent with a reduced impact of financial constraints rather than a reduced effectiveness of the financial constraint manipulation.

In sum, participants asked to consider their financial constraints were more likely to prefer material goods, but only when these material goods were long lasting. When the material goods were clearly short lived, the pattern reversed. Although we did not anticipate this reversal, we speculate that the description of the material goods in the short-lived condition could have made the ephemeral nature of these items particularly salient. This study provides additional evidence that concern about longevity mediates the relationship between financial constraints and preference for material purchases. Further, this study suggests an important boundary condition. Material goods that are ephemeral will not benefit from consumers' consideration of financial constraints. Additionally, because some of the short-lived material items objectively lasted longer than the experience (e.g., glow sticks last for hours while a game of skee-ball lasts only a few minutes), the disappearance of the effect in this condition indicates that financially constrained consumers are not merely maximizing the length of the benefits but instead are looking to secure lasting utility to reduce the need for future spending.

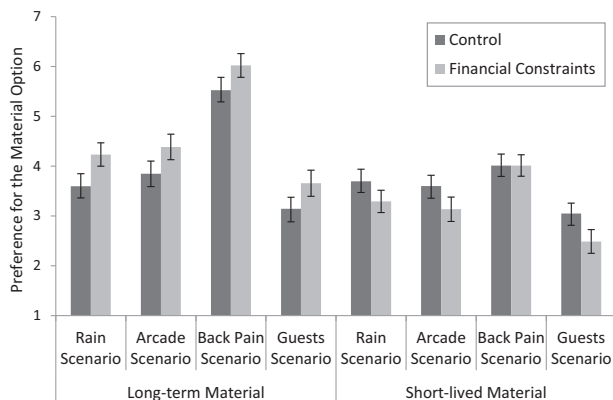
### STUDY 7: TANGIBLE VERSUS INTANGIBLE LONG-TERM BENEFITS

We have argued that financial constraints increase concern about the longevity of a purchase because financially constrained consumers want to maximize utility over time. One concern might be that the types of experiences used in our experimental paradigms did not lend themselves to the intangible long-term benefits that have been discussed in the previous literature on material and experiential purchases (such as memories and storytelling). Accordingly, the previous studies might have artificially forced a preference for longevity to translate into a greater desire for material purchases. Yet we find this possibility unlikely for two reasons. First, in study 1 in which participants wrote about their own desired purchases, many participants wrote about experiences that are likely to offer intangible long-term benefits (e.g., trips, vacations, and concerts). Second, in study 5, we included short-lived experiences that offered long-term benefits (e.g., music lessons where one can retain information and skills). Yet consideration of financial constraints still increased preference for material options over those particular experiences. This suggests that the long-term intangible benefits of these experiences (e.g., social connectedness) are not particularly attractive to financially constrained consumers. This is indeed

**FIGURE 5**

PREFERENCE FOR THE MATERIAL OPTION, ACROSS FIVE REPLICATES, BY CONDITION (STUDY 6)

NOTE.— Error bars represent standard error of the mean.



consistent with our assumption that financial constraints lead consumers to seek lasting benefits that reduce the anticipated need for future purchases. Although memories of experiences can provide lasting benefits, they may not reduce the need for future purchases. In fact, pleasant memories of prior trips may even increase the desire for future travel.

However, it is also possible that the long-term intangible benefits of experiences are in fact valued by financially constrained consumers but are simply not salient to them. In the final study, we therefore examine whether making those intangible benefits of experiences explicit can increase the attractiveness of experiences for financially constrained consumers (and reduce the previously observed effect). To test this, we did not only manipulate consideration of financial constraints, but we also manipulated whether participants were reminded of the memories that experiences can provide. In addition, we used more expensive purchases that allowed for more substantial “memory-worthy” experiences.

## Method

A total of 406 MTurk participants completed the computer-based study in exchange for financial compensation. Twenty participants failed an IMC and were excluded from all analyses, leaving a final sample of 386 participants (50.0% male,  $M_{age} = 32.8$ ).

As in studies 5 and 6, we manipulated the salience of financial constraints by asking some participants to write about the factors affecting their financial constraints and asking other (control) participants to write down 10 facts they know to be true. Participants were then shown five pairs of expensive material goods and experiences (see web appendix). For each pair, participants indicated which option they were more likely to buy on a 9-point scale. Importantly, some participants were reminded about the potential memories that the experiences could provide. For these participants, the description of each experience ended with “(which can provide lasting memories).”

After indicating their relative preferences for all of the options, participants were asked to indicate to what extent they considered which purchase would last longer (1 = Not at all, 7 = Very much) as well as how much they thought about their financial constraints while making their choices (1 = Not at all, 7 = Very much). Participants then answered an IMC question and completed demographic questions.

## Results and Discussion

*Manipulation Check.* As expected, participants who had written about their financial constraints reported thinking about their financial constraints more ( $M_{financial} = 5.17$ ,  $SD = 1.89$ ) than did participants in the control condition

( $M_{control} = 3.55$ ,  $SD = 2.11$ ;  $F(1, 382) = 62.18$ ,  $p < .001$ ). There was no effect of memory reminder ( $F < 1$ ) nor an interaction of memory reminder and financial constraints ( $F(1, 382) = 1.85$ , NS).

*Preference.* A repeated-measures ANOVA again revealed a significant main effect of memory reminder: reminding participants of the memories provided by experiences reduced preference for the material goods ( $F(1, 382) = 12.44$ ,  $p < .001$ ). There was also a reliable effect of financial constraints: as in previous studies, consideration of financial constraints increased preference for the material options ( $F(1, 382) = 24.29$ ,  $p < .001$ ). Most important, reminding participants of the memories experiences provide did not weaken this effect ( $F < 1$ ). None of the effects differed across pairs (all  $F$ s  $< 1.34$ , NS). Results for the five pairs are shown in figure 6.

*Longevity.* Participants who were asked to consider their financial constraints were more likely to consider longevity when making their decisions ( $M_{financial} = 5.15$ ,  $SD = 1.79$ ;  $M_{control} = 4.23$ ,  $SD = 2.08$ ;  $F(1, 382) = 21.29$ ,  $p < .001$ ). Furthermore, increased concern for longevity significantly increased preference for the material goods ( $\beta = 0.54$ ,  $t(384) = 12.44$ ,  $p < .001$ ). Critically, this effect was not weakened by reminders of the memories that experiences can provide ( $F < 1$ ). A bootstrapping test confirmed that increased concern about longevity mediated the effect of the financial constraint manipulation on preference for the material options (95% CI,  $-0.27$ – $0.67$ ;  $n = 386$ ; 10,000 resamples). Finally, after controlling for this mediation path, the effect of financial constraint condition on preference was weaker but still reliable ( $\beta = 0.12$ ,  $t(383) = 2.80$ ,  $p = .005$ ).

In sum, participants asked to consider their financial constraints were more likely to prefer material goods, even when the intangible long-term benefits of experiences were made explicit. This was again explained by an increased concern for the lasting nature of the purchase. Although the memory reminders made the experience more attractive overall, it did not attenuate the impact of financial constraints on preference for the material options. These findings suggest that intangible long-term benefits do not satisfy the long-term pursuits of financially constrained people. Instead, these results provide further evidence that financially constrained consumers are attracted to purchases that provide consumption utility over time, thus reducing the need for future purchases (something intangible benefits may fail to do).

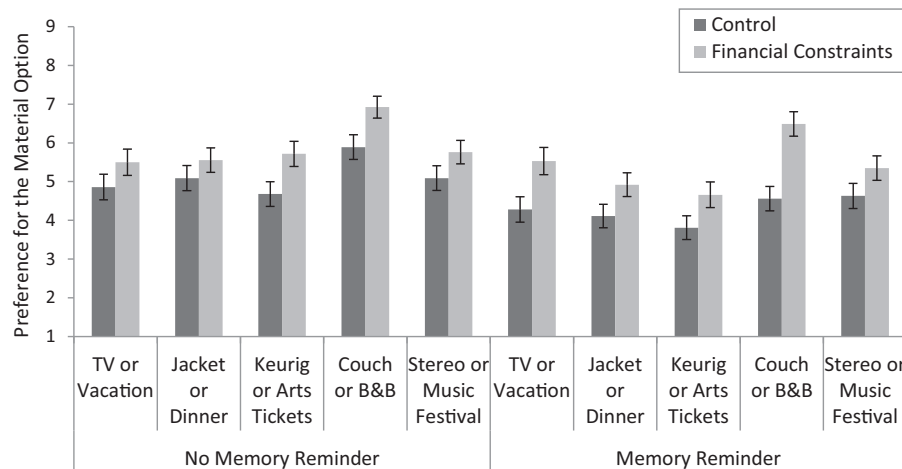
## GENERAL DISCUSSION

We have proposed that feelings of financial constraint systematically increase consumers’ concern about the lasting impact of their purchases and that this increased attention to longevity in turn increases preference for material

**FIGURE 6**

**PREFERENCE FOR THE MATERIAL OPTION ACROSS FIVE REPLICATES BY CONDITION (STUDY 7)**

NOTE.— Error bars represent standard error of the mean.



goods over experiences. As a result, feelings of financial constraint tend to shift consumers' preferences toward material goods and away from experiences. This basic effect is observed across all seven studies and across a wide variety of both self-generated and controlled replicates. In addition, the key role of increased concern about the purchase's longevity is demonstrated both through mediation (studies 1, 3, 4, 5, and 7) and through moderation (study 6): when material purchases are unusually short lived, feeling financially constrained does not increase preference for material goods and can even increase preference for experiences instead.

Our results rule out a number of alternative accounts. They indicate that the preference shift is not driven by financially constrained consumers finding experiences less appealing for a variety of reasons other than their limited longevity: because they do not like the social aspect of experiences, because they are concerned about possible negative outcomes, or because they are in a negative mood. Most important, our results offer substantial evidence that the preference shift cannot be attributed to financially constrained consumers making purchasing decisions that are more sensible and easier to justify. Study 3 indicates that the shift toward more material purchases persists even when those material goods are more frivolous, more wasteful, and harder to justify than the experiences.

Throughout the current studies, we relied on participants making choices between a material good and an experience. However, our findings have implications for purchases within each of these two categories that vary along the longevity dimension (e.g., durable vs. nondurable goods, memberships vs. day passes) and for other spending decisions that vary along this dimension (e.g., renting vs.

buying). Further, we speculate that the increased concern about longevity would matter even when decisions are made in isolation. That is, our findings suggest that the consideration of financial constraints will result in expenditure changes whenever duration is particularly salient. Thus consumers considering their financial constraints should be more likely to purchase a material good if its durability is particularly salient (e.g., highlighted in an ad) and less likely to purchase an experience if its limited longevity is salient. In fact, we speculate that the effect of financial constraints on aversion for experiences may be stronger than the preference for material purchases, largely because experiences are often defined by their limited existence (a 5-day vacation).

If financial constraints systematically shift preference from experiences to material goods, we may also be able to observe this effect in macro-level data since average feelings of financial constraint should predictably vary with observable macro-level variables such as unemployment and consumer confidence. In fact, a cursory analysis of aggregate US expenditure data from the Bureau of Economic Analysis (BEA) shows a correlation between the proportion of money spent on goods, on the one hand, and proxies of feelings of financial constraint in society, on the other hand. Specifically, consumers spend proportionately more on goods (compared to services) in quarters of greater unemployment ( $r = 0.34, p < .001$ ) and in quarters with lower levels of consumer confidence (as measured by the University of Michigan Consumer Confidence Index;  $r = -0.46, p < .001$ ), both controlling for a general time trend. Analysis of the most recent (Q4 2013) individual-level consumer expenditure data from the Bureau of Labor Statistics provides further supporting evidence. In these

data, “entertainment purchases” are split into three broad categories: fees and admissions (akin to experiences), TV, radio, and sound equipment (akin to material purchases), and an “other” category for miscellaneous purchases. To measure relative preference for material purchases, we use the amount spent in the material category less the amount spent in the experience category. Echoing the BEA finding, consumers with lower income spent relatively more on material purchases ( $\beta = -0.10$ ,  $t(1161) = -3.35$ ,  $p = .001$ ). Although these measures of discretionary spending and financial constraint are imperfect, they do suggest a positive relationship between financial constraints and preference for material goods on an aggregate level, a potential relationship that could be studied in more detail in future research.

Our finding that financial constraints nudge consumers toward material purchases has some potentially important implications for consumer welfare. Previous work suggests that such a shift toward more material purchases may be suboptimal for well-being since experiential purchases often lead to greater long-term happiness than material purchases (e.g., [Dunn et al. 2011](#)). The reasons suggested for this finding have been varied: compared to material goods, experiences are more self-defining ([Van Boven and Gilovich 2003](#)), are less easily comparable to alternatives ([Carter and Gilovich, 2010](#)), tend to provide greater social connections ([Caprariello and Reis 2013](#)), and are more likely to be reminisced about ([Van Boven and Gilovich 2003](#)). On the surface, the current findings suggest that the extent to which a consumer considers his or her financial constraints could have a negative impact on future well-being. Despite being more concerned with longevity, by shifting their purchases toward material purchases, these consumers may be undermining their future well-being.

However, in contrast, it is possible that consumers experiencing financial constraints in fact do derive relatively more utility from material goods, and thus the observed preference shift is actually in their best interest. Indeed, while most research has suggested a hedonic advantage for experiences, an early correlational study ([Van Boven and Gilovich 2003](#)) indicates that this advantage does not extend to the lowest income brackets, a group that is likely feeling financially constrained. While this attenuation may be due to differences in the types of purchases made by people across the income spectrum (e.g., poorer people choose less satisfying experiences), it may also be a direct result of feelings of financial constraint. For instance, financially constrained consumers may appreciate having something tangible rather than having the memories of a past experience. In sum, it is not yet clear whether this shift toward material purchases is a hedonically efficient way for financially constrained consumers to allocate their limited resources, which is an issue to be explored by future research.

## DATA COLLECTION INFORMATION

The first author managed the collection of data for studies 2 and 3 using Mechanical Turk online in the spring and summer of 2013. The first author managed the collection of data for studies 4 to 6 using Mechanical Turk online in the fall of 2013 and the winter of 2014. The first author managed the collection of data for study 1 using Mechanical Turk online in the summer of 2014. The first author managed the collection of data for study 7 and for [supplemental study 2 \(available in the web appendix\)](#) using Mechanical Turk online in the fall of 2014. Trained research assistants collected data for [supplemental study 1 \(available in the web appendix\)](#) in the New York University marketing behavioral lab during the winter of 2012 under the supervision of the first author. All data were analyzed by the first author.

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TULLY ET AL.

17

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