Web Appendix

# The Pursuit of Meaning and the Preference for Less Expensive Options

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**APPENDIX A.** DESCRIPTION OF ADDITIONAL MEASURES AND ANCILLARY ANALYSES ACROSS STUDIES 1-4b

In table A1, we report all supplemental analyses on key demographic variables and all additional measures.

The demographics analyses examined the potential moderating influence of *gender*, *income*, and *age*.

The individual difference analyses examined the potential moderating influence of *materialism* and *ethically-minded consumer behavior*. In studies 1a and 2, after completing the focal dependent variable and responding to the manipulation check participants completed the 9-item Materialism scale (short form; Richins 2004; αs range from .75 to .83). In study 1a only, participants also completed the 10-item Ethically-Minded Consumer Behavior scale (Sudbury-Riley and Kohlbacher 2016; α = .90 to .95). For each scale, responses were averaged into an index and mean-centered. These individual difference scales were measured as potential moderators of our anticipated effect of the goal manipulation on preference for less expensive items.

In study 1a, we also measured product involvement. Specifically, participants were asked to indicate how much they cared about eight products/product categories on scales ranging from 1 (not at all) to 5 (very much so). These items corresponded with the choice sets participants saw previously (*cooking*, *cars*, *cameras*, *coffee*, *water*, *skiing*, *Uber*, and *fine dining*). We summarized involvement measures into an index (α = .46 to .69) and examined whether overall involvement moderated the key result.

Across multiple studies we included two items tied to one author's earlier conceptualization of the characteristics of meaningfulness in consumption. These relate to a separate project and have no bearing on the present results. Participants were asked to indicate the degree to which they (1) made choices that were *unique to them* (vs. choices others would make) and (2) relied on previous *experience and expertise* (vs. not) on seven-point slider scales.

Lastly, in study 3, we asked about the degree to which participants focused on price, as well as alternative uses of their time and energy. For the sake of conceptual clarity, our operationalization of opportunity costs consists solely of participants' focus on alternative uses of money. These measures were included to examine other potential representations of opportunity costs.

Table A1. Supplemental analyses of demographic and ancillary measures across all studies.

| | Study | $M_{Meaning}$ *(SD)* | $M_{Pleasure}$ *(SD)* | *Contrast* |
|---|---|---|---|---|
| **Gender** | | | | |
| *Effect on preference DV controlling for gender* | 1a | -- | -- | $b = .28$, $t(169) = 2.69$, $p = .008$, $\beta = .28$ |
| | 1b | -- | -- | $b = .34$, $t(321) = 4.04$, $p < .001$, $\beta = .31$ |
| | $1a_{Footnote}$ | -- | -- | $b = .34$, $t(435) = 2.58$, $p = .010$, $\beta = .34$ |
| | 3 | -- | -- | $b = .39$, $t(434) = 5.22$, $p < .001$, $\beta = .34$ |
| | $3_{Discussion}$ | -- | -- | $b = .36$, $t(281) = 3.41$, $p = .001$, $\beta = .28$ |
| *Effect on price DV controlling for gender* | 2 | -- | -- | $b = -2.93$, $t(422) = -1.75$, $p = .081$, $\beta = -.15$ |
| *Effect on WTP (baseline vs. opportunity cost neglect) controlling for gender* | 4b | -- | -- | $b = 3.36$, $t(327) = 3.20$, $p = .001$, $\beta = .20$ |
| *Effect on WTP (baseline vs. opportunity cost consideration) controlling for gender* | 4b | -- | -- | $b = 1.23$, $t(327) = 1.17$, $p = .241$, $\beta = .07$ |
| *Goal X gender interaction* | 1a | -- | -- | $b = -.003$, $t(169) = -.02$, $p = .981$, $\beta = -.003$ |
| | 1b | -- | -- | $b = -.06$, $t(321) = -.542$, $p = .588$, $\beta = -.04$ |
| | $1a_{Footnote}$ | -- | -- | $b = .10$, $t(435) = .742$, $p = .458$, $\beta = .10$ |

| | | | | |
|---|---|---|---|---|
| | 2 | -- | -- | $b$ =*.54*, $t$(422) = .270, $p$ = .788, $\beta$ = .02 |
| | 3 | -- | -- | $b$ = *-.04*, $t$(434) = -.363, $p$ = .717, $\beta$ = -.02 |
| | $3_{Discussion}$ | -- | -- | $b$ = *-.05*, $t$(281) = -.330, $p$ = .741, $\beta$ = -.03 |
| **Income** | | | | |
| *Effect on preference DV controlling for income* | 1b | -- | -- | $b$ = *.31*, $t$(317) = 5.39, $p$ < .001, $\beta$ = .29 |
| *Effect on price DV controlling for income* | 2 | -- | -- | $b$ = *-5.69*, $t$(400) = -2.55, $p$ = .076, $\beta$ = -.30 |
| *Effect on WTP (baseline vs. opportunity cost neglect) controlling for income* | 4b | -- | -- | $b$ = *3.52*, $t$(318) = 3.31, $p$ = .001, $\beta$ = .21 |
| *Effect on WTP (baseline vs. opportunity cost consideration) controlling for income* | 4b | -- | -- | $b$ = *1.27*, $t$(318) = 1.19, $p$ = .236, $\beta$ = .08 |
| *Goal X income interaction* | 1b | -- | -- | $b$ = *-.02*, $t$(317) = -.947, $p$ = .345, $\beta$ = -.05 |
| | 2 | -- | -- | $b$ = *-.66*, $t$(400) = -1.07, $p$ = .284, $\beta$ = -.18 |
| **Age** | | | | |
| *Effect on preference DV controlling for age* | 1a | -- | -- | $b$ = *.28*, $t$(169) = 3.88, $p$ < .001, $\beta$ = .29 |
| | 1b | -- | -- | $b$ = *.33*, $t$(319) = 5.55, $p$ < .001, $\beta$ = .30 |
| | $1a_{Footnote}$ | -- | -- | $b$ = *.43*, $t$(434) = 10.1, $p$ < .001, $\beta$ = .44 |
| | 3 | -- | -- | $b$ = *.37*, $t$(432) = 7.01, $p$ < .001, $\beta$ = .32 |
| | $3_{Discussion}$ | -- | -- | $b$ = *.33*, $t$(281) = 4.55, $p$ < .001, $\beta$ = .26 |
| *Effect on price DV controlling for age* | 2 | -- | -- | $b$ = *-2.28*, $t$(419) = -2.45, $p$ = .015, $\beta$ = -.12 |
| *Effect on WTP (baseline vs. opportunity cost neglect) controlling for age* | 4b | -- | -- | $b$ = *3.54*, $t$(327) = 3.37, $p$ = .001, $\beta$ = .21 |
| *Effect on WTP (baseline vs. opportunity cost consideration) controlling for age* | 4b | -- | -- | $b$ = *1.38*, $t$(327) = 1.32, $p$ = .188, $\beta$ = .08 |
| *Goal X age interaction* | 1a | -- | -- | $b$ = *-.08*, $t$(169) = -1.48, $p$ = .140, $\beta$ = -.11 |
| | 1b | -- | -- | $b$ = *.01*, $t$(319) = 1.80, $p$ = .073, $\beta$ = .25 |
| | $1a_{Footnote}$ | -- | -- | $b$ = *.00*, $t$(434) = .017, $p$ = .987, $\beta$ = .001 |
| | 2 | -- | -- | $b$ = *.11*, $t$(419) = 1.48, $p$ = .139, $\beta$ = .07 |
| | 3 | -- | -- | $b$ = *-.001*, $t$(432) = -.123, $p$ = .902, $\beta$ = -.01 |
| | $3_{Discussion}$ | -- | -- | $b$ = *-.01*, $t$(281) = -.926, $p$ = .355, $\beta$ = -.05 |
| **Materialism** | | | | |

| | | | | |
|---|---|---|---|---|
| *Effect on preference DV controlling for materialism* | 1a | -- | -- | *b* = *.28*, *t*(169) = 3.83, *p* < .001, $\beta$ = .28 |
| *Effect on price DV controlling for materialism* | 2 | -- | -- | *b* = *-2.48*, *t*(422) = -2.70, *p* = .007, $\beta$ = -.13 |
| *Goal X materialism interaction* | 1a | -- | -- | *b* = *-.01*, *t*(169) = -.117, *p* = .907, $\beta$ = -.01 |
| | 2 | -- | -- | *b* = *1.54*, *t*(422) = 1.19, *p* = .234, $\beta$ = .06 |
| **EMCB** | | | | |
| *Effect on preference DV controlling for EMCB* | 1a | -- | -- | *b* = *.27*, *t*(169) = 3.76, *p* < .001, $\beta$ = .28 |
| *Goal X EMCB interaction* | 1a | -- | -- | *b* = *-.06*, *t*(169) = -.602, *p* = .548, $\beta$ = -.04 |
| **Involvement** | | | | |
| *Effect on preference DV controlling for involvement* | 1a | -- | -- | *b* = *.32*, *t*(169) = 4.49, *p* < .001, $\beta$ = .32 |
| *Goal X involvement interaction* | 1a | -- | -- | *b* = *.06*, *t*(169) = .929, *p* = .354, $\beta$ = .07 |
| **Made choices unique to me** | 1a | *5.42 (1.67)* | *5.23 (1.80)* | *t*(171) = .721, *p* = .472, *d* = .11 |
| | 1b | *5.38 (1.82)* | *5.90 (1.46)* | *t*(323) = 2.85, *p* = .005, *d* = .32 |
| | 2 | *5.71 (1.19)* | *5.62 (1.37)* | *t*(424) = .676, *p* = .500, *d* = .07 |
| | $3_{Discussion}$ | *5.75 (1.40)* | *5.74 (1.19)* | *t*(283) = .072, *p* = .942, *d* = .01 |
| | 4a | *5.45 (1.60)* | *5.48 (1.59)* | *t*(436) = .225, *p* = .822, *d* = .02 |
| **Relied on my expertise** | 1a | *4.83 (1.56)* | *4.21 (1.98)* | *t*(171) = 2.27, *p* = .025, *d* = .35 |
| | 1b | *4.52 (1.81)* | *4.70 (1.86)* | *t*(323) =.868, *p* = .386, *d* = .10 |
| | 2 | *3.72 (1.75)* | *3.37 (1.78)* | *t*(424) = 2.01, *p* = .045, *d* = .20 |
| | $3_{Discussion}$ | *5.33 (1.64)* | *5.37 (1.50)* | *t*(283) = -.213, *p* = .831, *d* = .03 |
| | 4a | *4.31 (1.69)* | *4.10 (1.84)* | *t*(436) = 1.22, *p* = .222, *d* = .12 |
| **Focus on price** | 3 | *5.10 (1.63)* | *4.65 (1.78)* | *t*(436) = 2.71, p = .007, *d* = .26 |
| **Focus on alternative uses of time** | 3 | *2.57 (1.86)* | *2.14 (1.66)* | *t*(436) = 2.52, p = .012, *d* = .24 |
| **Focus on alternative uses of energy** | 3 | *2.82 (1.97)* | *2.15 (1.71)* | *t*(436) = 3.84, p < .001, *d* = .37 |

NOTE. In analyses involving gender, females are coded as 1, all other genders coded as 0. EMCB = ethically-minded consumer behavior. For study 2, the comparison to the meaning condition was not pleasure, but instead a no-goal baseline condition. Study $3_{Discussion}$ = the study referenced in the discussion of study 3 that replicates and extends it by examining a coded mediator.

## **APPENDIX B.** MANIPULATION CHECK ANALYSES

Primary (Dichotomous) Manipulation Check Used in Studies 1a-b, 3, and $3_{Discussion}$

Our focal manipulation check question asked respondents to indicate which goal they pursued as they completed the shopping task: pursue meaning or pursue pleasure (forced choice). This manipulation check was not used in studies 2, 4a, or 4b. Table B1 summarizes the success of the manipulation for each study in which the check was used. Overall, we find evidence that the manipulation worked as intended.

Table B1. Summary of focal manipulation check across all studies in which it was employed.

| *Study* | %Pass manipulation check | $\%_{Meaning}$ | $\%_{Pleasure}$ |
|---|---|---|---|
| 1a | 89.0% | 88.9% | 89.1% |
| 1b | 80.3% | 72.3% | 88.0% |
| 2 | -- | -- | -- |
| 3 | 92.0% | 91.3% | 92.7% |
| $3_{Discussion}$ | 87.0% | 91.5% | 82.5% |
| 4a | -- | -- | -- |
| 4b | -- | -- | -- |

## **APPENDIX C.** REPLICATION OF STUDY 1A WITH SCALAR MANIPULATION CHECK (STUDY 1A$_{FOOTNOTE}$)

This follow-up study was a near replication of study 1a, designed to provide additional validation for the goal induction manipulation. Four hundred and forty Prolific workers completed this pre-registered study (https://aspredicted.org/S3J_HB8) in exchange for a small monetary payment. One participant from the meaning condition asked to have their data removed, leaving a final sample of 439 (394 women; $M_{age}$ = 23.93).

The (meaning vs. pleasure) manipulation and the dependent variable (average preference for less expensive items) were identical to study 1a, and the study proceeded identically during these phases. At the end of the study, instead of asking participants to select which goal they were pursuing, we measured the extent to which participants' preferences were motivated by the pursuit of meaning or pleasure, using separate scales. Notably, we manipulated which of these items we presented between participants, such that half of participants reported on the influence of meaning, and the remaining participants reported on the influence of pleasure. Specifically, participants were asked, "To what extent were your purchase preferences motivated by the pursuit of MEANING [PLEASURE]," with capitalized bracketed information manipulated between groups. Responses were made on a scale ranging from 1 (not at all) to 7 (extremely).

We measured meaning and pleasure in separate samples to avoid contamination and minimize the likelihood that the results were colored by measurement artifacts (given the high correlation between meaning and pleasure; Baumeister et al. 2013; Dwyer, Dunn, and Hershfield 2017). We anticipated that both measures would separately relate to the dependent variable across independent samples.

Results and Discussion

First, we replicate the pattern observed in study 1a on our key outcome. Participants in the meaning condition ($M$ = 4.25) reported a stronger preference for the less expensive products as compared to those in the pleasure condition ($M$ = 3.40; $t(437) = 10.18$, $p < .001$; $d = .97$). We also obtain evidence that the manipulation operated in the way we intended. Amongst those presented with the meaning manipulation check, participants prompted to pursue meaning reported that their preferences were more motivated by meaning ($M$ = 5.09), compared to those in the pleasure condition ($M$ = 3.83; $t(214) = 6.06$, $p < .001$; $d = .83$). Likewise, amongst those presented with the pleasure manipulation check, participants prompted to pursue meaning reported that their preferences were less motivated by pleasure ($M$ = 4.24), compared to those in the pleasure condition ($M$ = 5.87; $t(221) = -9.24$, $p < .001$; $d = -1.24$). This result corroborates the pattern observed with the forced-choice manipulation check employed in study 1a.

As a follow-up analysis, we examined the degree to which the two manipulation check items related to participants' expressed preference for less expensive items. Corroborating the pattern we obtain when we predict product preference from experimental condition, we found that measured meaning (as assessed by the manipulation check) positively predicted people's preference for less expensive items ($b = .12$, $t(214) = 2.98$, $p = .003$). Conversely, and consistent with past research (e.g., Wakefield and Inman 2003), we found that measured pleasure (again, as assessed by the manipulation check) negatively predicted people's preference for less expensive items ($b = -.31$, $t(221) = -8.58$, $p < .001$).

Thus, we conclude that meaning and pleasure separately influence people's preference for less expensive items. While it is known that pleasure correlates with an interest in more expensive things (e.g., Wakefield and Inman 2003), we show that the pursuit of meaning leads to an opposite pattern. Importantly, these results speak against an interpretation that our key finding is driven merely by reduced pleasure amongst those pursuing meaning (studies 2, 4a, and 4b provide additional evidence against such an interpretation).

## **APPENDIX D.** REPLICATION AND EXTENSION OF STUDY 3 USING CODED MEDIATOR (STUDY $3_{DISCUSSION}$)

Here, we conceptually replicate and extend the results of study 3 by examining the effect of the meaning goal on participants' thoughts about alternative uses for their money. More specifically, for each of four product sets, after indicating their preference between more and less expensive products participants explained their preference in 1-2 sentences. This rich set of responses was then coded by trained research assistants for opportunity cost consideration.

Furthermore, we examine the effect of reminding participants of the typical link between a product's quality and its durability. This durability factor allowed us to examine a boundary at which the effect of the pursuit of meaning (vs. pleasure) on the preference for less expensive items would not be obtained. Specifically, we predicted that prompting participants to think about the link between quality and durability would cause meaning-motivated participants to shift away from thinking about opportunity costs, and presumably move them towards thinking more narrowly about the options at hand. If so, then the key result should be attenuated amongst those who are reminded that higher quality products tend to be more durable. Furthermore, this moderated pattern should be mediated by the coded index of opportunity cost consideration.

### Design and Method

Two hundred and eighty-nine American Prolific workers completed this 2 (goal: meaning vs. pleasure) by 2 (durability-quality link reminder: present vs. absent) between-subjects design. Sample size was determined by budget and anticipated power to detect a possible interaction

between the durability and goal manipulations. To comply with the IRB requirements for this research, we excluded data from four participants (1 in the meaning condition) who requested that their data not be included in the final dataset. Therefore, the final sample consisted of responses from 285 participants (148 women; $M_{age}$ = 31.82).

The study design was identical to study 3 with four exceptions. First, we did not manipulate the goal writing task instructions; all participants completed the goal manipulation with the writing task instructions, taken from study 1a. Instead, in this study, we manipulated a dependent variable factor: whether participants were reminded of the link between a product's quality and its durability as they made choices. More specifically, those in the *durability-quality link present condition* received a reminder before completing the shopping task that "products with higher quality tend to be more durable." In addition, they were shown the reminder that "high quality options tend to be more DURABLE" at the top of every choice set. Participants in the *durability-quality link absent condition* proceeded from the manipulation to the preference task as they did in study 1a and study 3.

Second, instead of providing a self-report of opportunity cost consideration, participants were asked to explain their thought process as they indicated their preferences. Third, participants viewed and rated only four product sets (from the coffee and car categories) as opposed to 12. We limited the number of product sets in this study because we wanted participants to generate rich (codable) responses to the thought listing task. Similar to Spiller (2011), participants were asked to "write 1-2 sentences explaining your preference" for each of the four product sets on a subsequent page so they could not change their preference rating based on their explanation. The four free responses were then coded by two research assistants (who were blind to the research hypotheses and participants' experimental condition) for how much

the participant was focused on opportunity costs (i.e., how much participants mentioned or focused on other things they could do with their money besides buy the product in question; 1 = little to no focus; 5 = a lot of focus). To evaluate alternative explanations for our key result, responses were also coded for *resource conservation* (i.e., how much participants appeared to be trying to save money for future unknown circumstances; 1 = little to no focus; 5 = a lot of focus) and *financial scarcity* (i.e., how much participants appeared to be feeling as though there was a discrepancy between their current level of resources and a higher, more desirable reference point; 1 = little to no focus; 5 = a lot of focus). For the exact coding scheme see web appendix E. Responses were treated as a missing variable (3.6% of the sample) when a) any explanation was too generic or vague to be coded (e.g., "price") or b) when participants wrote nonsense phrases (e.g., "dfdhgdhdhdhd"). The coding for each product was reliable (opportunity costs: αs > .78; financial scarcity: αs > .74; resource conservation: αs > .87) so we averaged the coders' ratings to form an index for each possible process ($M_{opportunity\ cost\ consideration}$ = 1.83; $M_{financial\ scarcity}$ = 1.12; $M_{resource\ conservation}$ = 1.23).

Fourth, participants completed the same theory-derived manipulation check used in studies 1a and 1b and a manipulation check for the durability manipulation ("When you made your choices, to what extent were you focused on the durability of the options," 1 = not at all; 7 = extremely; table D1).

## Results and Discussion

*Product preference.* Consistent with studies 1-3, participants in the meaning condition ($M$ = 4.34) reported a higher preference for less expensive products as compared to participants in

the pleasure condition ($M$ = 3.67; $F$(1, 281) = 21.08, $p$ < .001; $\eta_p^2$ = .070). There was no main effect of the durability manipulation ($p$ = .491). Consistent with predictions, however, we observed a near significant goal by durability interaction ($F$(1, 281) = 3.832, $p$ = .051; $\eta_p^2$ = .013). Decomposing this interaction, we found that when the link between quality and durability was not mentioned, we replicated our previous results: participants pursuing meaning (vs. pleasure) showed a stronger preference for less expensive items ($M_{meaning}$ = 4.54 vs. $M_{pleasure}$ = 3.58; $F$(1, 281) = 21.820, $p$ < .001, $\eta_p^2$ = .072). Consistent with our conceptual model, when the link between quality and durability was made salient, the magnitude of the effect was sharply reduced ($M_{meaning}$ = 4.15 vs. $M_{pleasure}$ = 3.77; $F$(1, 281) = 3.408, $p$ = .066, $\eta_p^2$ = .012).

*Opportunity cost as a mechanism.* Next, we tested the predictions that the meaning (vs. pleasure) goal increased participants' consideration of opportunity costs (i.e., how much participants expressed a consideration of alternative uses for their money), but that reminding participants of the link between quality and durability would attenuate that effect. Treating coders' ratings of opportunity cost consideration as the dependent measure, we found that participants pursuing meaning ($M$ = 1.97) focused on opportunity costs more than those pursuing pleasure ($M$ = 1.69; $F$(1, 277) = 10.704, $p$ = .001; $\eta_p^2$ = .037). We again found no main effect of the durability manipulation ($p$ = .180), but we did observe the anticipated (marginally) significant goal by durability interaction ($F$(1, 277) = 3.735, $p$ = .054, $\eta_p^2$ = .013). Mirroring the pattern predicting product preference, we found that when the link between quality and durability was not mentioned, participants pursuing meaning (vs. pleasure) showed a stronger preference for less expensive items, replicating the results from study 3 ($M_{meaning}$ = 2.10 vs. $M_{pleasure}$ = 1.67; $F$(1, 277) = 13.786, $p$ < .001, $\eta_p^2$ = .047). Consistent with expectations, when the link between

quality and durability was made salient, that effect disappeared ($M_{meaning}$ = 1.83 vs. $M_{pleasure}$ = 1.72; $p$ = .349, $\eta_p^2$ = .003).

We conducted a bootstrapped moderated mediation analysis (Hayes 2017) to evaluate the hypothesis that the effect of pursuing meaning (vs. pleasure) on participants' preference for low-price options occurred via an enhanced focus on opportunity costs but only when durability was not made salient. Using the PROCESS macro (model 8), we ran a model treating the goal manipulation as the independent variable, coded focus on opportunity costs as the potential mediator, the durability manipulation as the potential moderator, and product preference as the dependent variable. This analysis revealed evidence of moderated mediation (b = -.277, 95% CI [.-.572, -.001]). Supporting our proposed conceptual model, the indirect effect of meaning (vs. pleasure) on enhanced preference for less expensive products via coded opportunity cost consideration was significant when there was no mention of durability and quality ($b$ = .373, 95% CI [.155, .593]). Consistent with expectations, when durability was made salient, the indirect effect was not significant ($b$ = .096, 95% CI [-.089, .281], including zero).

*Alternative explanations.* Predicting coding of participants' focus on financial scarcity during the product preference task, we did not observe any main effects nor an interaction ($p$s > .281). Predicting coding of participants' focus on conserving resources, we also did not observe any effects of our manipulations ($p$s > .225). As such, these factors did not mediate our results (CIs include zero). Combined with the results of study 2, these findings cast doubt on the alternative explanation that participants pursuing meaning are inclined toward less expensive products because of a desire to conserve resources.

*Discussion.* The results of this study provide additional support for the hypothesis that participants pursuing meaning (vs. pleasure) prefer less expensive products because of an

enhanced focus on opportunity costs. Furthermore, this study provides evidence for a boundary condition for our key result. When the link between durability and quality was made salient, the preferences of those pursuing meaning matched the preferences of those pursuing pleasure. Notably, the durability reminder had no effect on the preferences of those pursuing pleasure, but it did reduce the preference for less expensive products among participants pursuing meaning.

We theorized that the durability manipulation prompts participants pursuing meaning to attend more narrowly to the options at hand, reducing the degree to which they spontaneously take opportunity costs into account. The moderated mediation pattern supports this thinking. For participants not exposed to the durability reminder, we replicated the mediation results obtained in study 3 using a different measure of opportunity costs (i.e., coding of participants' free responses by trained coders) that was taken from prior work on opportunity cost consideration (Frederick et al. 2009; Spiller 2011). For participants reminded of durability, that indirect effect was attenuated.

Table D1. Effect of goal condition (meaning vs. pleasure) in study $3_{\text{Discussion}}$

| | $M_{Meaning}$ *(SD)* | $M_{Pleasure}$ *(SD)* | *Contrast* |
|---|---|---|---|
| *Preference DV in control condition* | *4.54 (1.12)* | *3.58 (1.43)* | $t(281) = 4.67$, $p < .001$, $d = .59$ |
| *Preference DV in durability-quality link salient condition* | *4.15 (1.06)* | *3.77 (1.27)* | $t(281) = 1.85$, $p = .066$, $d = .59$ |
| *Focus on alternative uses of money (coded mediator)* | *1.97 (.688)* | *1.69 (.718)* | $t(279) = 3.26$, $p = .001$, $d = .59$ |
| *Focus on future benefits* | *5.49 (1.42)* | *4.19 (1.80)* | $t(283) = 6.74$, $p < .001$, $d = .59$ |
| *Treat as thinking task* | *4.91 (1.75)* | *3.55 (1.95)* | $t(283) = 6.18$, $p < .001$, $d = .59$ |
| *Invest time* | *5.64 (1.19)* | *5.68 (1.25)* | $t(283) = -.260$, $p = .795$, $d = .59$ |
| *Aggregate TDMC* | *5.35 (1.07)* | *4.47 (1.17)* | $t(283) = 6.58$, $p < .001$, $d = .59$ |
| *Durability check in durability-quality link salient condition* | *5.22 (1.49)* | *4.83 (1.67)* | $t(281) = 2.59$, $p = .010$, $d = .59$ |
| *Durability check in control condition* | *4.49 (1.51)* | *4.01 (1.99)* | $t(281) = 2.91$, $p = .004$, $d = .59$ |
| *Main effect of durability salience manipulation on durability check* | -- | -- | $F(1, 281) = 4.70$, $p = .031$, $d = .59$ |

**APPENDIX E.** OPPORTUNITY COST CONSIDERATION, RESORUCE CONSERVATION, AND FINANCIAL SCARCITY CODING SCHEMES FOR STUDY 3DISCUSSION

## Opportunity Cost Coding Scheme

For each explanation, please code whether the participant appears to mention or focus on opportunity costs (e.g., other things they could do with money besides buy coffee makers or skis).

Please make all responses on the following 0-5 coding scheme:

| 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| N/A or indeterminable | Little to no focus on opportunity costs | | | | A lot of focus on opportunity costs |

NOTE:

1. Any explanation that is too generic or vague to be coded as focusing on opportunity costs should be scored as 0 (zero).
2. Any nonsense phrases (e.g., "dfdhgdhdhdhd") should be scored as 0 (zero).

## Financial Constraint/Resource Scarcity Coding Scheme

For each explanation, please code whether the participant appears to be thinking about their current financial constraints/resource scarcity when considering what they would purchase. Generally speaking, this involves feeling as though there is a discrepancy between one's current level of financial resources and a higher, more desirable reference point.

Please make all responses on the following 0-5 coding scheme:

| 999 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| N/A or indeterminable | Little to no financial constraint | | | | A lot of financial constraint |

NOTE:

1. Any explanation that is too generic or vague to be coded as expressing financial scarcity should be scored as 999 (missing value).
2. Any nonsense phrases (e.g., "dfdhgdhdhdhd") should be scored as 999 (missing value).

## Resource Conservation Coding Scheme

For each explanation, please code whether the participant appears to be trying to conserve resources for the future (e.g., for a rainy day). More specifically, they are attempting to save money for future unknown circumstances. If they feel as though they currently do not have enough money but do not indicate a desire to conserve resources, then please code that as being financially constrained (see Rating 1).

Please make all responses on the following 0-5 coding scheme:

| 999 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| N/A or indeterminable | Little to no focus on resource conservation | | | | A lot of focus on resource conservation |

NOTE:

1. Any explanation that is too generic or vague to be coded as focusing on opportunity costs should be scored as 999.
2. Any nonsense phrases (e.g., “dfdhgdhdhdhd”) should be scored as 999.

## **APPENDIX F.** VALIDATION TEST FOR STIMULI USED IN STUDY 4B

This validation test confirmed that participants perceived photo albums to be a meaningful product category, and that participants perceived the more expensive, handcrafted photo album to be *more* meaningful than the inexpensive, hardcover photo album. Two hundred and ten participants (80 women; $M_{age}$ = 32.88) from the same population as study 4b (Prolific workers residing in the USA) received either the meaning goal manipulation from that study or no goal manipulation (i.e., baseline condition). Then all participants viewed the products from study 4b and rated how meaningful they found each product (1 = not at all; 7 = very much so). A one-sided t-test (using 4, the midpoint of the scale) indicated that participants who were induced to pursue a meaning goal (using the same goal manipulation from study 4b) perceived both photo albums (and thus the product album category) to be meaningful as compared to the midpoint of the scale ($M_{inexpensive}$ = 5.06, $t(103) = 8.034$, $p < .001$; $M_{expensive}$ = 5.50, $t(103) = 12.430$, $p < .001$). Perhaps more important, participants induced to pursue meaning perceived the *more* expensive product to be more meaningful than the less expensive product ($t(103) = 2.909$, $p = .004$, $d = .29$). The results were descriptively similar, if not stronger, among baseline participants who did not receive a goal ($M_{inexpensive}$ = 5.69 vs. $M_{expensive}$ = 4.80; $t(96) = 4.968$, $p < .001$, $d = .51$).

## **APPENDIX G.** POST-HOC POWER AND SENSITIVITY ANALYSES

**Study 1a: The preference for less expensive options (N = 173)**

- Study design: 2-group (goal: meaning vs. pleasure) between-subjects study
- Statistical test: independent samples t-test
- Input parameters:
    - $\alpha = .05$
    - Power of $1-\beta = .80$
    - Obtained effect size = Cohen's $d = .59$
    - Two-tailed test
    - Group sizes: 92 and 81
- Required effect size given our study parameters: Cohen's $d = .43$
- Achieved power of $1-\beta = .97$

**Study 1b: The preference for less expensive options (N = 325)**

- Study design: 2-group (goal: meaning vs. pleasure) between-subjects study
- Statistical test: independent samples t-test
- Input parameters:
    - $\alpha = .05$
    - Power of $1-\beta = .80$
    - Obtained effect size = Cohen's $d = .59$
    - Two-tailed
    - Group sizes: 159 and 166

- Required effect size given our study parameters: Cohen's *d* = .31
- Achieved power of 1-β = 1.00

**Study 1a[Footnote]: Replication of Study 1a with Scalar Manipulation Check (N = 439)**

- Study design: 2-group (goal: meaning vs. pleasure) between-subjects study
- Statistical test: independent samples t-test
- Input parameters:
  - α = .05
  - Power of 1-β = .80
  - Obtained effect size = Cohen's *d* = .97
  - Two-tailed test
  - Group sizes: 223 and 216
- Required effect size given our study parameters: Cohen's *d* = .27
- Achieved power of 1-β = 1.00

**Study 2: Incentivized Choice (N = 426)**

- Study design: 2-group (goal: meaning vs. pleasure) between-subjects study
- Statistical test: independent samples t-test
- Input parameters:
  - α = .05
  - Power of 1-β = .80
  - Obtained effect size = Cohen's *d* = .26
  - Two-tailed
  - Group sizes: 219 and 207

- Required effect size given our study parameters: Cohen's *d* = .27
- Achieved power of 1-β = .76

**Study 3: Opportunity Cost Consideration as a Mediator (N = 438)**

- Study design: 2 (goal: meaning vs. pleasure) by 2 (elaboration prompt: present vs. absent) with goal and elaboration as between-subjects factors
- Statistical test: ANOVA: fixed effects, special, main effects and interactions
    - α = .05
    - Power of 1-β = .80
    - Obtained effect size (price preference): Cohen's ***f*** **=** .34
    - Obtained effect size (opportunity cost consideration): Cohen's ***f*** **=** .19
    - Numerator df = 1; number of groups = 4
- Required effect size: Cohen's ***f*** = .13
- Achieved power of 1-β (price preference) = 1.00
- Achieved power of 1-β (opportunity cost consideration) = .98

**Study 3$_{\text{Discussion}}$: Coded Opportunity Cost Consideration and a Boundary Condition (N = 285)**

- Study design: 2 (goal: meaning vs. pleasure) by 2 (durability reminder: present vs. absent), with goal and durability as between-subjects factors
- Statistical test: ANOVA: fixed effects, special, main effects and interactions
    - α = .05
    - Power of 1-β = .80

    - Main effect of goal condition on
        - price preference: Cohen's ***f*** = .27
        - opportunity cost consideration: Cohen's ***f*** = .20
    - Interaction between goal and durability conditions on
        - price preference: Cohen's ***f*** = .11
        - opportunity cost consideration: Cohen's ***f*** = .11
    - Numerator df = 1; number of groups = 4
- Required effect size: Cohen's ***f*** = .17
- Achieved power of 1-β for the main effect of goal condition on
    - price preference = .92
    - opportunity cost consideration = 1.00
- Achieved power of 1-β for the goal by durability interaction on
    - price preference = .46
    - opportunity cost consideration = .46

**Study 4a: Process by Moderation (final sample N = 438)**

- Study design: 2 (goal: meaning vs. pleasure) by 2 (opportunity cost reminder: present vs. absent), with goal and opportunity cost salience as between-subjects factors
- Statistical test: z test, logistic regression
    - Two tailed
    - Main effect: H1 = .40; H0 = .30 (Odds ratio = 1.56; Pr = .30)
    - Simple effect of goal condition in the opportunity cost not salient condition H1 = .36; H0 = .17 (Odds ratio = 2.75; Pr = .17)

- α = .05
- Power of 1-β = .80
- X distribution: binomial

- Required effect size: Odds ratio .43
- Achieved power for the main effect of goal condition 1-β = .99
- Achieved power for the simple effect of goal condition in the opportunity cost not salient condition 1-β = 1.00

**Study 4b: Willingness to Pay (N = 332)**

- Study design: 3-groups (opportunity cost consideration vs. opportunity cost neglect vs. baseline) between-subjects design
- Statistical test: fixed effects, one-way omnibus ANOVA
- Input parameters:
  - α = .05
  - Power of 1-β = .80
  - Obtained effect size: Cohen's ***f*** = .19
  - Three groups
- Required effect size given our study parameters: Cohen's ***f*** = .17
- Achieved power of 1-β = .88

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