Interest-Free Financing Promotions Increase Consumers' Demand for Credit for Experiential Goods

JOHANNES C. BAUER, VICKI G. MORWITZ, AND LIANE NAGENGAST

ABSTRACT This research provides a first investigation into how interest-free financing promotions influence consumer behavior. Five experiments demonstrate that framing an economically equivalent financing offer in a way that makes salient that it is interest-free increases consumers' demand for credit to finance experiential, but not material goods. This increased willingness to finance manifests for primarily experiential goods (e.g., vacations), goods with mixed benefits (e.g., bike) if their experiential aspects are highlighted, and mixed shopping baskets that provide primarily experiential benefits. Using mediation and moderation, the results suggest that this occurs because interest-free cues mitigate feelings of debt aversion for experiential purchases. Based on our findings, we highlight public policy and managerial implications.

Firms use price to spur purchasing but also rely on creative ways consumers can pay for their purchases to facilitate buying. Interest-free financing promotions allow consumers to pay for high-priced products with installments and no interest charges. In 2002, General Motors reported record US car sales after offering customers "no-interest financing" (Hakim 2002). Today, slogans like *"Buy Now, Pay Later"* are found at many retailers. Whereas interest-free financing promotions were originally used for material goods (furniture, appliances), they are now also used for experiential goods. For example, American Airlines has a "fly now payment plan" that offers interest-free financing, and many travel companies offer "0% APR vacation financing" (e.g., Disney Travel Company). Moreover, interest-free financing is popular for goods that offer both experiential and material benefits (e.g., Apple's "special financing" for devices). Despite previous research showing that consumers avoid borrowing for certain purchases (e.g., vacations; Prelec and Loewenstein 1998), the prevalence of interest-free financing offers and the increasing use of credit for a plethora of goods (Euromonitor International 2017) suggest that consumers today are more willing to finance both material and experiential purchases (Tully and Sharma 2018). This, in turn, has been implicated as a cause for growing household debt and increased personal bankruptcies.

Our research is the first to investigate the impact of interest-free financing promotions on consumer behavior and provides novel insights into consumers' payment preferences for different goods. It examines: (1) how framing an economically equivalent financing offer in a way that makes salient that it is interest-free influences consumers' willingness to finance, (2) whether this deal framing effect varies with type of good, and (3) what underlying process explains these effects.

Five experiments demonstrate that making salient that a financing offer is interest-free increases consumers' willingness to finance experiential, but not material goods, goods with mixed benefits if their experiential aspects are highlighted, and shopping baskets that primarily provide experiential benefits. This occurs because highlighting interest-free financing reduces unpleasant feelings associated with financing experiential consumption.

We next present the conceptual background and main hypotheses, followed by our studies and findings. We conclude with a discussion of theoretical contributions, public policy and managerial implications, and limitations and future research directions.

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JACR, volume 6, number 1. Published online January 27, 2021. https://doi.org/10.1086/710250

CONCEPTUAL BACKGROUND

Payment-Benefit Matching

When consumers decide how to fund (versus make) a purchase, payment-benefit matching is a key consideration (e.g., Tully and Sharma 2018). Consumers prefer financing if the loan duration matches the good's life and are willing to incur monetary costs to avoid loans that exceed its longevity (Hirst, Joyce, and Schadewald 1994). Prelec and Loewenstein (1998) demonstrated that while most people (76%) preferred to post- vs. prepay for a $1,200 washer-dryer, most (63%) chose to prepay for a $1,200 vacation, despite the economic benefits of postpayment.

We build on Prelec and Loewenstein's (1998) classic finding that consumers' payment preferences differ by type of good. They argue that consumers prefer postpayment for long-lasting material goods because the pain of payment is buffered by co-occurring consumption benefits. In contrast, postpayment for short-lived experiential goods decouples the payments from consumption. Thoughts of postpayment trigger debt aversion and anticipation of a reduction in the enjoyment of the experience. By showing that people who chose to prepay predicted they would "feel better" during consumption, Prelec and Loewenstein (1998) provided an affective (feelings-based) account for consumers' prepayment preference for short-lived experiential goods. We moderate Prelec and Loewenstein's finding and also explain and show that consumers' increased willingness to finance experiential goods—when the postpayment financing offer is framed in a way that makes salient that it is interest-free—is driven by a reduction in debt aversion.

Deal Framing

Different ways of framing identical decisions affect choices (Tversky and Kahneman 1981). Behavioral pricing research has shown that deal framing influences consumers' purchase decisions. For example, adding a higher regular price ("before $99") to a lower sale price ("now $69") increases value perceptions and purchase likelihood (e.g., Lichtenstein and Bearden 1989; Mayhew and Winer 1992). Furthermore, consumers are sensitive to the mere presence of promotional cues even in the absence of actual discounts (e.g., Inman, Joyce, and Schadewald 1990; Inman, Peter, and Raghubir 1997).

We expect that additional cues that are objectively equivalent to the financial information already communicated are a form of attribute framing (Levin, Schneider, and Gaeth 1998) that will affect consumers' financing decisions. Similar to previous research suggesting that promotional cues provide justifiable reasons for choosing an item (e.g., Chandon, Wansink, and Laurent 2000), we posit that interest-free cues lead to more analytical, reason-based considerations which reduce the focus on feelings and thus mitigate debt aversion for goods that do not provide payment-benefit matching. Therefore, we assume that zero interest financing compensates for low payment-benefit matching if its "free" nature is highlighted.

Zero Price Effect

Previous research has shown that a zero price results in disproportionate increases in demand. Shampanier, Mazar, and Ariely (2007) showed that when given a choice between a 1¢ Hershey's Kiss and a 15¢ Lindt truffle, more people chose the Lindt (36%) than the Hershey's (14%) chocolate. However, in a condition when the chocolate prices were 1 cent lower, there was a preference reversal such that more people chose the now free Hershey's (42%) over the Lindt (19%) chocolate. Shampanier et al. (2007) argued this reversal occurs because a zero price evokes positive affect and, thus, provides emotional benefits beyond the reduced cost. This zero price effect occurs for low- and high-priced products, in single- and multicomponent contexts (e.g., Baumbach 2016) and is larger for hedonic than utilitarian products (Hossain and Saini 2015).

Relatedly, we assume that zero interest can be a "special price." However, we expect a different process will affect how consumers react to zero interest. For low payment-benefit matching goods, consumers typically experience debt aversion, which manifests as an unpleasant feeling of using credit for consumption (e.g., Eckel et al. 2007; Greenberg and Hershfield 2016). We suggest that making interest-free financing salient increases demand for credit for these goods by mitigating these unpleasant feelings. Thus, similar to Shampanier et al. (2007), we posit an affective reaction to "free" cues. However, rather than positing a positive affective boost, we expect zero interest to reduce negative affect.

Analytical and Affective Processing

Our research builds on the idea that consumers' financing decisions are driven by both analytical, reason-based considerations and affective responses. The notion that decisions are determined by a cognitive and an emotional system is well-established and formalized in various dual-process theories (e.g., Kahneman and Frederick 2002) with evidence suggesting that peoples' choices result from the relative dominance of one system over the other (e.g., McLure et al. 2004). We build on Epstein's (1994) cognitive-experiential

self-theory but adopt the terms analytical and affective processing to describe a cognitive system that involves logical, reason-oriented processing and an emotional system that is holistic and pleasure-pain oriented. Rather than viewing analytical and affective processing as two independent routes, we assume that both systems can be active concurrently and can affect each other (e.g., Kahneman and Frederick 2002).

Consistent with Prelec and Loewenstein (1998), we suggest that the level of payment-benefit matching influences the extent to which consumers rely on reasons and feelings in their financing decisions. One classification of goods that vary systematically by payment-benefit duration matching is experiential/material (Tully and Sharma 2018). Experiential goods are typically low payment-benefit matching goods. They generate value from their consumption experience and are often short-lived (Van Boven and Gilovich 2003), so that loan payments usually occur after the benefits have passed. For these ephemeral goods, consumers cannot rely on payment-benefit matching as the key input for financing, which triggers debt aversion feelings and decreases willingness to finance. In contrast, material goods are typically high payment-benefit matching goods. They generate value from their possession and are often long-lasting (Van Boven and Gilovich 2003), with benefits exceeding loan payments. For these investment-type goods, consumers rely on considerations of payment-benefit matching as the key input for financing which mitigates debt aversion and increases willingness to finance.

In our research, we posit that different ways of framing economically equivalent financing offers will influence consumers' willingness to finance and that the level of payment-benefit matching will moderate this deal framing effect. Figure 1 presents our conceptual framework.

We suggest that only for low (vs. high) payment-benefit matching experiential (vs. material) goods will interest-free salient deal frames increase consumers' willingness to finance. For experiential goods, in the absence of interest-free cues, since there is no payment-benefit matching to justify using financing, consumers will instead primarily focus on their feelings, which triggers debt aversion. For these goods, making interest-free financing salient reduces the focus on feelings and, thus, attenuates debt aversion, which, in turn, will increase financing. For material goods, there is a high-level of payment-benefit matching, and therefore consumers naturally do not experience high levels of debt aversion when they consider financing. Therefore, additional interest-free cues will not affect willingness to finance for these goods. This is consistent with Levin et al.'s (1998) argument that attribute-framing effects might not manifest in cases when stronger nonframe-related beliefs manifest. This is likely to be the case for material goods, since consumers can easily already justify financing based on payment-benefit matching, independent of the frame. Thus, we hypothesize:

> **H1:** Framing an economically equivalent financing offer to make salient that it is interest-free will increase consumers' willingness to finance experiential, but not material goods.

Consistent with figure 1, we expect that, for experiential consumption, making interest-free financing salient reduces consumers' focus on feelings and, and thus, increases willingness to finance by mitigating debt aversion:

> **H2:** The deal framing effect is driven by mitigated feelings of debt aversion for experiential goods. It

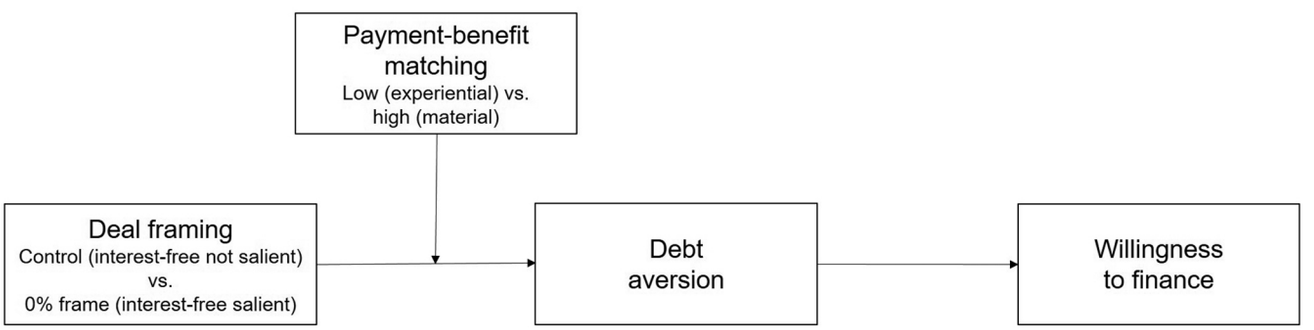

Figure 1. Conceptual framework. Payment-benefit matching is hypothesized to moderate the effect of interest-free salient deal frames on consumers' willingness to finance: interest-free salient deal frames will increase willingness to finance only for low payment-benefit matching experiential goods by mitigated feelings of debt aversion.

does not occur for material goods for which financing decisions are based on considerations of payment-benefit matching and not driven by feelings of debt aversion.

In the first four studies (1a, 1b, 1c, and 2), our deal-framing manipulations were motivated by common marketplace practices and employed both typical promotional (e.g., special promotion) and interest-free (e.g., 0% APR financing) cues at the same time. While this reflects common marketplace practices, the combination of persuasive cues does provide people with additional reasons to buy, which could potentially drive or enhance any effects that we are attributing to the salience of interest-free cues. To address this, in study 3, we investigate the isolated impact of interest-free cues and demonstrate that the hypothesized deal framing effect also manifests when only interest-free cues are used.

STUDY 1A

Study 1a tests hypothesis 1 that making interest-free financing salient increases consumers' willingness to finance experiential, but not material goods. Given that prior research has shown larger zero price effects for hedonic versus utilitarian goods (Hossain and Saini 2015), it also aims to show that this deal framing effect does not depend on these dimensions. We also address an alternative account that consumers perceive postpayment as costlier when it is not explicitly mentioned that financing is interest-free.

Pretest

A pretest showed that a weekend city trip was perceived as more experiential than a stereo system and that these goods were not perceived as different in their utilitarian versus hedonic benefits (app. A, available online).

Main Experiment

Participants and Procedure. Participants were 325 US consumers (M_{age} = 37.4, 44.9% female, $Med_{household\ income}$ = \$50,000 to \$59,999), recruited through the crowdsourcing panel Clickworker. They were randomly assigned to conditions of a 2 (deal framing: control vs. 0% promo frame) × 2 (benefit: material vs. experiential) between-subjects design. Participants were told they were thinking about buying a \$600 stereo (i.e., material) or weekend city trip (i.e., experiential) and that they are only able to purchase if they use a 3-month installment plan (Tully and Sharma 2018). This plan was either framed as a *financing offer* involving three \$200 payments (i.e., control condition) or as a *0% APR special financing promotion* involving three *interest-free* \$200 payments (i.e., 0% promo frame condition). Importantly, financing is economically equivalent in these two conditions. We told participants that they expect to be able to pay off this purchase over 3 months and that there are no additional costs associated with using financing (app. B).

Measures. Willingness to finance was measured by asking: "How willing are you to finance the stereo system (*weekend city trip*)?" using a seven-point scale anchored by "not at all willing to finance" (1) and "very willing to finance" (7). Next, we measured perceived financing costs with: "How much costs (for the customer) do you think are associated with this financing offer?" (1 = "no costs at all" to 7 = "a lot of costs"). Finally, participants answered a manipulation check about the good's material versus experiential benefits (app. A).

Results

Manipulation Check. A 2 (deal framing) × 2 (benefit) ANOVA on good's benefits produced only a significant main effect of benefit ($F(1, 321) = 72.68$, $p < .001$). Participants judged the trip as more experiential (5.85) than the stereo (4.16).

Willingness to Finance. A 2 (deal framing) × 2 (benefit) ANOVA on willingness to finance produced only a significant deal framing by benefit interaction ($F(1, 321) = 4.48$, $p = .035$). Making salient that financing was an interest-free promotion increased participants' willingness to finance in the experiential ($M_{control} = 4.84$ vs. $M_{0\%\ promo\ frame} = 5.56$; $F(1, 321) = 5.96$, $p = .015$) but not in the material condition ($M_{control} = 5.47$ vs. $M_{0\%\ promo\ frame} = 5.31$; $F(1, 321) = .30$, $p = .584$; see fig. 2).

Perceived Costs. The same ANOVA on perceived costs produced no significant effects. Thus, participants perceived the two deal frames as economically equivalent.

Discussion

Study 1a provides initial support for hypothesis 1 by demonstrating that interest-free promotion frames increased willingness to finance a weekend trip, but not a stereo system. Furthermore, it demonstrated that the deal framing effect does not manifest for goods differing along the utilitarian-hedonic dimension and that cost perceptions do not drive

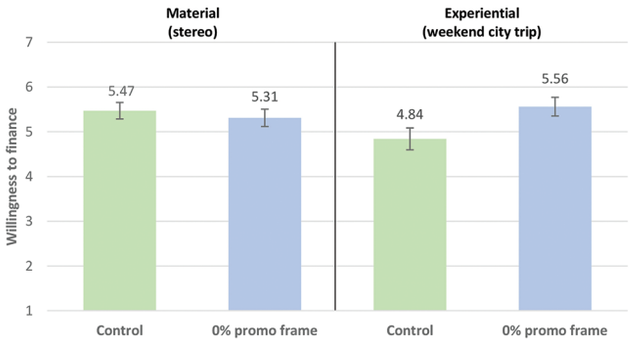

Figure 2. Study 1a: Deal framing effect on willingness to finance a material vs. an experiential good. Making salient that financing was an interest-free promotion increased participants' willingness to finance an experiential (i.e., weekend city trip) but not a material (i.e., stereo system) good.

financing.[1] Since stereos and weekend trips differ along dimensions beyond material-experiential, study 1b uses a more controlled experiment to identify the central moderator.

STUDY 1B

Study 1b holds the product constant and manipulates its material-experiential benefits. Since many products do not provide purely material or experiential benefits, but provide value both from possession and consumption experiences, we aim to demonstrate that interest-free promotion frames increase financing when consumers focus on products' experiential, rather than material benefits. Furthermore, study 1b provides initial process evidence that a mitigated influence of feelings underlies consumers' financing decisions in the presence of interest-free promotion frames.

Method

Participants and Procedure. Two hundred and eighteen Amazon Mechanical Turk (MTurk) participants completed the study. We excluded 11 participants for not following task instructions.[2] Thus, the analyses included 207 participants (M_{age} = 31.8, 47.3% female), who were randomly assigned to conditions of a 2 (deal framing: control vs. 0% promo frame) × 2 (focus: material vs. experiential) between-subjects design.

Using an essay-writing task, we first focused participants on a bike's material or experiential aspects (e.g., Carter and Gilovich 2010), a product identified as falling in the middle of the material-experiential spectrum (Tully and Sharma 2018). Participants in the material condition were instructed to write several sentences describing the bike's material elements:

> Imagine that you are thinking about buying a bike. Please take a few moments to think about what the new bike would be like. Please write 5 to 10 sentences that describe the physical or material elements of the new bike—what type of bike it would be and what it would look like, the materials and parts it is made off, how durable the new bike would be, and so forth. Please try to focus specifically on aspects related to the bike's physical or material elements.

For those in the experiential condition, the last two sentences instead read:

> Please write 5 to 10 sentences that describe the experience of using the new bike—how pleasurable it would be riding the new bike, how much fun it would be to go on a bike tour with your friends and family, how enjoyable it would be to explore the city or the countryside on the new bike, and so forth. Please try to focus specifically on aspects related to the experience of using the bike.

Next, all participants saw the bike's financing scenario (app. E) which extends Prelec and Loewenstein's (1998) original paradigm. They were told to imagine that they planned to purchase a $1,200 bike in 6 months and that they had two different payment options: pre- or postpayment. The control condition, which does not make salient that the postpayment option is an interest-free promotion, employs Prelec and Loewenstein's (1998) wording:

> Option A: Make 6 monthly payments of $200 each during the six months before the bike arrives.
> Option B: Make 6 monthly payments of $200 each during the six months after the bike arrives.

In the 0% promo frame conditions, the scenario and option A were identical, but option B made salient that financing is an interest-free promotion:

> Option B: Use a 0% APR special financing promotion and make six interest-free monthly payments of $200 each during the 6 months after the bike arrives.

1. App. C presents a study that holds the product constant, but manipulates its hedonic-utilitarian benefits.

2. App. D includes analyses confirming the result's robustness across various definitions of "not following the task instructions."

Measures. Payment preference was the dependent variable and measured by asking: "Which option would you choose?" Option A (coded 0) / Option B (coded 1). Next, to begin to get at the underlying process, participants were asked to indicate the extent to which they relied on their feelings (vs. reasons) when making their financing decision: "When choosing your preferred financing option, how much did you rely on your feelings and how much did you rely on objective reasons?" (1 = "feelings only" to 7 = "objective reasons only") (Lee et al. 2015). Reliance on feelings was reverse coded in the survey and recoded for the analyses so that high (low) numbers indicate high (low) reliance on feelings. Before providing demographics, participants answered a manipulation check about the bike's material versus experiential benefits (app. E).

Results

Manipulation Check. A 2 (deal framing) × 2 (focus) ANOVA on the bike's benefits showed that participants judged the bike as more experiential in the experiential (5.01) than the material focus condition (4.18; $F(1, 203) = 14.06$, $p < .001$). No other effects were significant.

Postpayment Preference. A binary logistic regression of deal framing (−1 = control; 1 = 0% promo frame), focus (−1 = material; 1 = experiential), and their interaction produced only a significant interaction ($b = .34$, $Z = 2.26$, $p = .024$). Making salient that financing was an interest-free promotion increased postpayment in the experiential ($p_{\text{control}} = 53.1\%$ vs. $p_{0\%\text{ promo frame}} = 74.5\%$; $Z = 2.21$, $p = .027$), but not the material condition ($p_{\text{control}} = 73.6\%$ vs. $p_{0\%\text{ promo frame}} = 64.8\%$; $Z = -.98$, $p = .327$; see fig. 3).

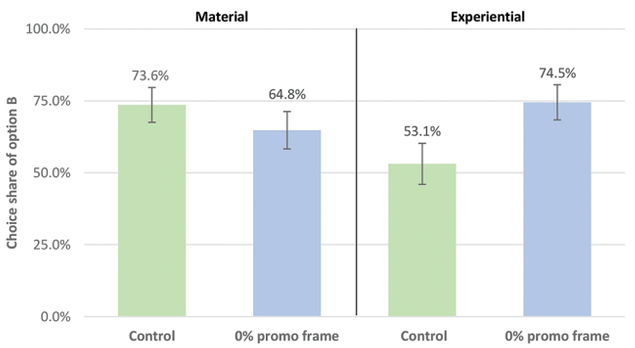

Figure 3. Study 1b: Deal framing effect on postpayment preference for a bike. Making salient that financing was an interest-free promotion increased postpayment for participants who focused on the bike's experiential benefits but did not affect postpayment for participants who focused on the bike's material benefits.

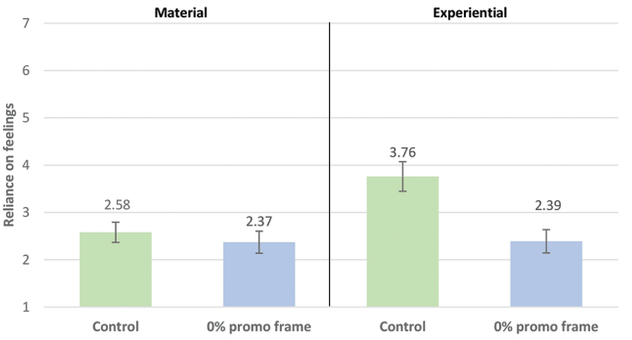

Figure 4. Study 1b: Deal framing effect on reliance on feelings. Making salient that financing was an interest-free promotion decreased reliance on feelings in the experiential benefits condition, but not in the material benefits condition.

Reliance on Feelings. A 2 (deal framing) × 2 (focus) ANOVA on reliance on feelings produced significant main effects of deal framing ($F(1, 203) = 9.85$, $p = .002$) and focus ($F(1, 203) = 5.62$, $p = .019$). Reliance on feelings was stronger in the control (3.15) than the 0% promo frame condition (2.38), and in the experiential (3.06) versus the material (2.48) condition. Importantly, their interaction was significant ($F(1, 203) = 5.22$, $p = .023$). Making salient that financing was an interest-free promotion decreased reliance on feelings in the experiential ($M_{\text{Control}} = 3.76$ vs. $M_{0\%\text{ promo frame}} = 2.39$; $F(1, 203) = 14.22$, $p < .001$), but not in the material focus condition ($M_{\text{control}} = 2.58$ vs. $M_{0\%\text{ promo frame}} = 2.37$; $F(1, 203) = .38$, $p = .540$; see fig. 4). This is consistent with our suggestion that interest-free financing promotions decrease the negative feelings associated with debt aversion.

Moderated Mediation. A moderated mediation model tested whether the deal framing effect on postpayment is driven by a reduced influence of feelings. First, we conducted two separate regressions with postpayment preference and reliance on feelings as the dependent variables and deal framing, benefit, and their interaction as independent variables. In line with the results reported above, only the deal framing by focus interaction ($b = .34$, $p = .024$) predicted postpayment preference. Furthermore, deal framing ($b = -.39$, $p = .002$), focus ($b = .30$, $p = .019$), and their interaction ($b = -.29$, $p = .023$) were significant predictors of reliance on feelings. Next, we regressed postpayment preference on the mediator and all independent variables. This logistic regression produced only a significant effect of reliance on feelings ($b = -.97$, $p < .001$). The effects of deal framing ($b = -.25$, $p = .215$), focus ($b = .21$, $p = .302$), and the deal

framing by focus interaction ($b = .20$, $p = .305$) were not significant. Bootstrap analyses (5,000 samples; Zhao, Lynch, and Chen 2010) produced a significant indirect effect of the highest order interaction (indirect effect = .56, 95% confidence interval [CI] = .06 to 1.09) confirming that the conditional indirect effects were significantly different from each other. While the deal framing effect on postpayment in the experiential condition was mediated by decreased reliance on feelings (indirect effect = .66, 95% CI = .25 to 1.21), no such indirect effect was evident in the material condition (indirect effect = .10, 95% CI = −.18 to .51).

Discussion

By demonstrating that highlighting interest-free promotion financing increased willingness to finance a bike only when participants focused on its experiential benefits, study 1b further supports hypothesis 1. It also provides initial evidence that this effect, in the experiential focus condition, is driven by a reduced influence of feelings.

STUDY 1C

Study 1c provides greater insights into the underlying psychological process by exploring how feelings of debt aversion influence consumers' reactions. Specifically, we now measure the extent to which consumers experience unpleasant feelings associated with financing their purchase. Using mediation, we test hypothesis 2, which posits that for experiential (but not material) goods framing the postpayment option as interest-free increases willingness to finance by mitigating these unpleasant feelings of debt aversion.

Method

Participants and Procedure. Five hundred and forty-four MTurk participants ($M_{age} = 36.2$, 53.5% female) completed the study. They were randomly assigned to conditions of a 2 (deal framing: control vs. 0% promo frame) × 2 (benefit: material vs. experiential) between-subjects design. We used Prelec and Loewenstein's (1998) washer-dryer (i.e., material) and vacation (i.e., experiential) scenarios and extended them by adding study 1b's deal framing manipulation for a $1,200 purchase (app. F). After indicating their preference for pre- versus postpayment, participants answered questions that measured the extent to which they would experience debt aversion for this purchase. For example, participants indicated their agreement with the statement "Being in debt for this purchase would feel bad." The full set of items used to measure debt aversion is provided in appendix F.

Results

Postpayment Preference. A binary logistic regression of deal framing (−1 = control; 1 = 0% promo frame), benefit (−1 = material; 1 = experiential), and their interaction yielded significant main effects of benefit ($b = -1.07$, $Z = -10.43$, $p < .001$) and deal framing ($b = .38$, $Z = 3.69$, $p < .001$). Postpayment was higher in the material (71.9%) than the experiential (24.9%) condition and in the 0% promo frame (55.5%) versus the control (40.9%) condition. Their interaction was also significant ($b = .37$, $Z = 3.56$, $p < .001$). Making salient that financing was an interest-free promotion increased postpayment in the experiential ($p_{control} = 12.4\%$ vs. $p_{0\%\ promo\ frame} = 38.6\%$; $Z = 4.83$, $p < .001$), but not the material condition ($p_{control} = 71.6\%$ vs. $p_{0\%\ promo\ frame} = 72.2\%$; $Z = .10$, $p = .922$; see fig. 5).

Debt Aversion. A 2 (deal framing) × 2 (good) ANOVA on debt aversion yielded significant effects of deal framing ($F(1, 540) = 6.47$, $p = .011$), benefit ($F(1, 540) = 123.18$, $p < .001$), and their interaction ($F(1, 540) = 4.16$, $p = .042$). Making salient that financing was an interest-free promotion significantly mitigated debt aversion in the experiential condition ($M_{control} = 5.76$ vs. $M_{0\%\ promo\ frame} = 5.12$; $F(1, 540) = 10.69$, $p = .001$) but not in the material condition ($M_{control} = 3.92$ vs. $M_{0\%\ promo\ frame} = 3.85$; $F(1, 540) = .12$, $p = .725$; see fig. 6).

Moderated Mediation. We ran a moderated mediation model similar to the one in study 1b, but with debt aversion as mediator. First, we conducted two separate regressions with postpayment preference and debt aversion as the dependent variables and deal framing, benefit, and their

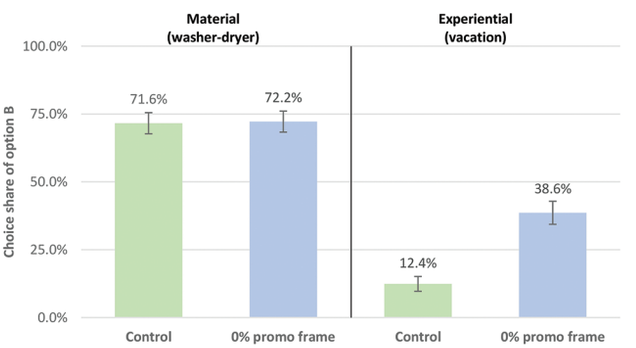

Figure 5. Study 1c: Deal framing effect on postpayment preference for a material vs. an experiential good. Making salient that financing was an interest-free promotion increased postpayment for an experiential (i.e., vacation) but not for a material (i.e., washer-dryer) good.

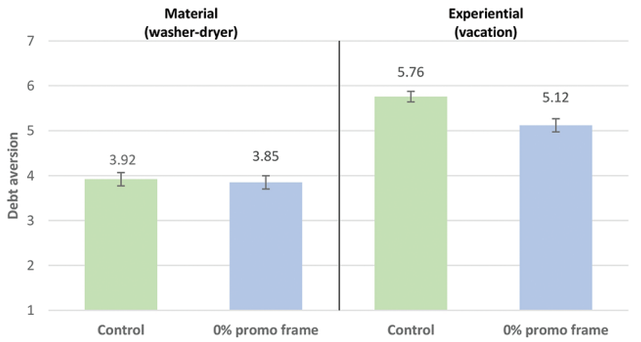

Figure 6. Study 1c: Deal framing effect on debt aversion. Making salient that financing was an interest-free promotion mitigated debt aversion for an experiential (i.e., vacation) but not for a material good (i.e., washer-dryer).

interaction as independent variables. In line with the results reported above, deal framing ($b = .38$, $p < .001$), benefit ($b = -1.07$, $p < .001$), and their interaction ($b = .37$, $p < .001$) predicted postpayment preference. Furthermore, deal framing ($b = -.18$, $p = .011$), benefit ($b = .77$, $p < .001$), and their interaction ($b = -.14$, $p = .042$) were significant predictors of debt aversion. Next, we regressed postpayment preference on the mediator and all independent variables. The logistic regression produced significant effects of debt aversion ($b = -1.30$, $p < .001$), deal framing ($b = .38$, $p = .006$), benefit ($b = -.76$, $p < .001$), and the deal framing by benefit interaction ($b = .42$, $p = .003$). Bootstrap analyses (5,000 samples; Zhao et al. 2010) produced a significant indirect effect of the highest order interaction (indirect effect = .37, 95% CI = .01 to .76) confirming that the indirect effects were significantly different for the two goods. While the deal framing effect on postpayment for the vacation was (partially) mediated by debt aversion (indirect effect = .42, 95% CI = .17 to .68), no indirect effect via debt aversion was found for the washer-dryer (indirect effect = .05, 95% CI = −.24 to .32).

Discussion

Study 1c demonstrated that interest-free promotion frames increased postpayment for a vacation, but not a washer-dryer. Our mediation results suggest that this effect occurs because interest-free promotion frames reduce debt aversion feelings associated with experiential consumption which, in turn, increases their financing likelihood. Note we also measured reliance on reason and perceived interest (app. F). Additional tests confirm that perceived interest differences do not drive the effect and suggest that – consistent with our conceptualization – an interplay of affective responses and analytical, reason-based considerations underlies consumers' financing decisions (app. G).

STUDY 2

Study 2 provides direct, controlled evidence for this psychological process by manipulating a focus on feelings. We expect to trigger debt aversion and eliminate the deal framing effect when participants rely on their feelings (vs. objective reasons) when making their choice.

Method

Participants and Procedure. Three hundred and eighty-eight MTurk participants ($M_{age} = 36.5$, 43.0% female) completed the study. They were randomly assigned to conditions of a 2 (deal framing: control vs. 0% promo frame) × 2 (processing: feelings-based vs. reason-based) between-subjects design using only study 1c's experiential condition. Participants imagined the vacation scenario in which option B was either framed as an interest-free financing promotion or not. Before choosing, participants were instructed to evaluate the scenario and the two payment options. Participants in the feelings-based condition were instructed (Cameron and Payne 2011):

> Before we will ask you to choose between the two financing options for your Caribbean vacation, we will show you this screen for about 1 minute.
> While you are viewing this information, please let yourself experience whatever emotions you feel. In other words, as you think about the scenario described above, try to focus on how you are feeling about the two financing options. When making your financing decision on the next screen, please rely on your feelings.

The last paragraph in the reason-based condition read:

> While you are viewing this information, please try to adopt a detached and unemotional attitude. In other words, as you think about the scenario described above, try to evaluate the two financing options objectively, in terms of their technical aspects. When making your financing decision on the next screen, please focus on the objective facts.

Following this, participants indicated their payment preference on a seven-point scale anchored by "option A" (1) and "option B" (7).

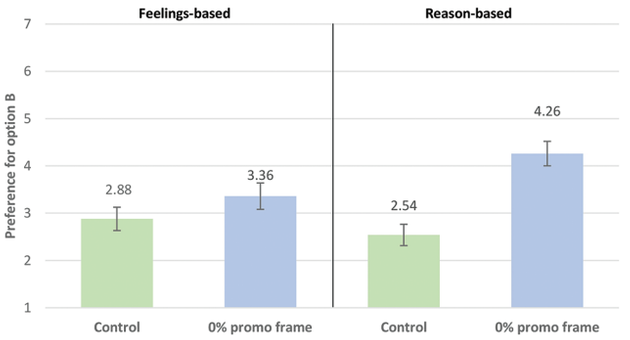

Figure 7. Study 2: Deal framing effect on postpayment preference for a vacation (i.e., an experiential good). Making salient that financing was an interest-free promotion increased vacation postpayment for participants who focused on reasons but did not affect vacation postpayment for participants who focused on their feelings.

Results

A 2 (deal framing) × 2 (processing) ANOVA on postpayment produced a significant main effect of deal framing ($F(1, 384) = 19.04$, $p < .001$). Postpayment was higher in the 0% promo frame (3.82) than the control condition (2.71). The interaction was also significant ($F(1, 384) = 6.02$, $p = .015$).

For participants who focused on feelings, payment preferences did not differ between the 0% promo frame (3.36) and the control condition (2.88; $F(1, 384) = 1.82$, $p = .178$). Consistent with hypothesis 2, prompting participants to rely on their feelings likely triggered debt aversion in the absence and presence of interest-free cues and, thus, eliminated the deal framing effect. For those who focused on reasons, postpayment was higher in the 0% promo frame (4.26) than the control condition (2.54; $F(1, 384) = 23.24$, $p < .001$; see fig. 7).

Discussion

The type of processing influenced the deal framing effect. When participants relied on feelings, highlighting interest-free promotion financing did not affect vacation payment preferences because participants likely experienced debt aversion in both financing frames. Thus, by eliminating the deal-framing effect in the feelings-based condition and replicating it in the reasons-based condition, study 2 provided further support for hypothesis 2 and our account that interest-free salient deal frames increase willingness to finance by reducing consumers' negative affective responses associated with using credit for experiential purchases.

Besides adding more realism, the next study was designed to address the limitation that the previously used deal framing manipulations combined interest-free and promotional cues. For example, in all the prior studies one could argue that the 0% promo frame uses more action-oriented and strategic wording (i.e., "use a 0% APR special financing promotion"), a word (i.e., "special") that is more positive and that perhaps implies a better promotion than prior or future deals or a more scarce promotion than the control frame. The 0% promo frame also uses more words overall than the control frame. The next study therefore examines whether the deal framing effect manifests when we control for these other differences, and only increase the salience of interest-free cues without including other promotion signals.

STUDY 3

In the marketplace, firms typically advertise interest-free deals using both promotional and interest-free cues. For example, Walt Disney offers special vacation financing with a 0% promo APR. By framing the interest-free offer as a "0% APR special financing promotion" in the previous studies, our deal framing manipulation reflected common marketplace practices, but did not allow us to isolate the separate effects of promotional and interest-free cues. Therefore, this study investigates the isolated impact of interest-free cues. It also replicates the deal framing effect in a setting with real-world customers and transactions. It increases the generalizability of our findings by exploring a wide range of products and spending amounts and a different loan duration, deal frame, and likelihood to finance measure.

Method

Participants and Procedure. Participants were 267 customers ($M_{age} = 45.27$, 61.8% female) of a Swiss furniture and home décor retailer who completed a survey in exchange for a chocolate bar. The study was conducted on seven consecutive December days with participants randomly selected and surveyed after payment in the checkout area of one of the retailer's stores. All participants were actual buyers who spent between CHF12.00 and CHF5,000.00 ($M_{spending} = $ CHF308.33) and purchased between one and 30 items ($M_{no.\ of\ items} = 7.11$). Examples of items purchased included glasses and rugs in the home décor category and sofas and desks in the furniture category. Currently, the retailer does not offer any form of financing.

Participants were randomly assigned to a deal framing condition by either receiving a questionnaire on a new "installment financing offer" (control) or a new "interest-free

financing offer" (0% frame). They first read the following (deal framing manipulation is *italicized*):

> In order to better address our customers' needs, we are currently evaluating new payment options. Specifically, we are interested in your opinion about whether we should offer 12-month installment financing (*12-month interest-free financing*) in the future.
>
> Example:
> The total price of your purchase is CHF1,200. With our installment financing offer (*interest-free financing offer*), you pay for this purchase in 12 equal (*12 equal, interest-free*) monthly installments of CHF100 each.
>
> Your benefits:
>
> 1. No down payment and no additional costs—the first (*the first interest-free*) installment is due in 30 days after the date of purchase.
> 2. No third-party financing—[company name] remains your contractual partner when you choose to use the installment financing offer (*interest-free financing offer*).
> 3. No minimum purchase amount—the installment financing offer (*interest-free financing offer*) is available for all purchases.

Participants were next instructed to think about their purchase and the items they have just bought, and to refer to it when answering all questions.

Measures. Likelihood to finance was measured by asking: "How likely is it that you would finance your purchase using the installment financing offer (*interest-free financing offer*)?" (1 = "very unlikely" / 7 = "very likely). Participants then rated their own purchase along the material-experiential dimension (app. H). Before answering demographic questions, they stated their total spending amount and the number of purchased items.

Results

We regressed likelihood to finance on deal framing (−1 = control; 1 = 0% frame), material-experiential benefits (measured continuously and mean-centered), and their interaction. The main effect of deal framing ($b = .37, t = 3.57, p < .001$) and the interaction ($b = .19$, $t = 2.49$, $p = .013$) were significant. The main effect of material-experiential benefits was not significant ($b = .01$, $t = .08$, $p = .94$). We used floodlight analysis and the Johnson-Neyman (J-N) technique to identify the range of material-experiential benefits for which the simple effect of the deal framing manipulation was significant (i.e., gray shaded area in fig. 8).

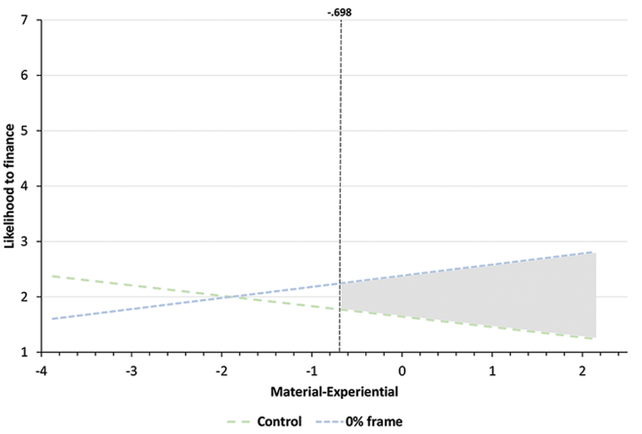

Figure 8. Study 3: Floodlight analysis with regression lines and Johnson-Neyman region of significance. Shaded area shows the range of material-experiential benefits for which the simple effect of the deal framing manipulation was significant (i.e., values greater than the −.698 J-N point).

This analysis revealed that there was a significant positive effect of deal framing for benefit values greater than the −.698 J-N point ($b_{\text{J–N point}} = .23$, SE = .12, $p = .05$) but not for values less than −.698. Thus, the deal framing effect became significant near (i.e., just below) the mean value (.00) of material-experiential benefits ($b = .37$, $t = 3.57$, $p < .001$) and was significant for all values in the experiential range, including the index value at one standard deviation above the mean (1.35) of material-experiential benefits ($b = .63, t = 4.35, p < .001$). In contrast, the simple slope of deal framing at one standard deviation below the mean (−1.35) was not significant ($b = .11$, $t = .72$, $p = .475$). Appendix I provides an overview of the simple slopes of deal framing across the full range of values of the material-experiential moderator.

Discussion

The deal framing effect is not limited to laboratory scenarios. Study 3 replicated the previous findings with real buyers, transactions, and purchases varying in price, number of bought items, and shopping basket content. By demonstrating robustness across a range of products, a different loan duration, and deal framing manipulation, study 3

increases the external validity and generalizability of the previous findings. Furthermore, it suggests that interest-free cues, even in the absence of other promotional cues, increase consumers' willingness to finance experiential purchases. To provide additional support for the isolated impact of interest-free cues and its underlying psychological process, an extra study in the appendix manipulates separately the salience of interest-free and promotional cues and demonstrates that only interest-free cues mitigate consumers' negative affective reactions to financing experiential consumption which, in turn, increases their financing likelihood (app. J).

GENERAL DISCUSSION

Theoretical Contributions

While prior behavioral pricing research has mainly focused on traditional promotions (e.g., discounts, free products), this is the first to investigate consumers' reactions to interest-free financing deals. By explaining how, when, and why framing an economically equivalent financing offer in a way that makes salient that it is interest-free increases consumers' likelihood to finance, we contribute to the literatures on deal framing, financial decision-making, and information processing. Five experiments demonstrate that making salient that a financing offer is interest-free increases consumers' willingness to finance experiential, but not material purchases. This deal framing effect manifests for primarily experiential goods (e.g., vacations), goods with mixed benefits (e.g., bike) if their experiential aspects are highlighted, and mixed shopping baskets that provide primarily experiential benefits. The results are robust across a range of products, prices, spending amounts, and loan durations. The effect emerged in the lab and field, with different participant samples (MTurk, panel members, actual buyers), and countries (US and Switzerland). Importantly, the findings identify a moderator of Prelec and Loewenstein's (1998) classic findings. Furthermore, they extend previous research on the zero price effect (Shampanier et al. 2007). Consistent with our conjecture that zero interest is a "special price," an additional study in the appendix shows that highlighting a financing plan's interest rate only boosts willingness to finance an experiential good if the offer involves zero interest, but not if it involves a marginal, nonzero interest rate (app. K).

We also provide insights into the psychological mechanism. Prior work has shown that consumers tend to have unpleasant feelings about using credit, especially for goods like experiential ones for which payments are made after the benefits have ceased, and they therefore prefer pre- to post-payment. We add to this work and help explain the recent proliferation of interest-free promotions for experiential goods by showing that interest-free salient deal frames attenuate these unpleasant feelings. Using mediation, study 1c showed that interest-free salient deal frames mitigate debt aversion which, in turn, increases consumers' likelihood to finance an experiential good. By manipulating processing mode, study 2 eliminated the deal framing effect for experiential goods under feelings-based processing: when participants focused on their feelings, making interest-free financing salient did not affect demand for credit because participants likely experienced similar levels of debt aversion in the absence (control condition) and presence (0% promo frame condition) of interest-free cues. An additional study in the appendix supports this account. It demonstrates that, in the presence of interest-free cues, longer decision times (consistent with less affective processing) drive consumers' increased willingness to finance an experiential good (app. J).

Public Policy and Managerial Implications

Our findings have important implications for public policy officials and consumer advocates who want to protect consumers from taking on debt they cannot easily repay, which can lead to adverse financial consequences. Our findings also have implications for retail and financial services managers regarding when best to use zero interest financing promotions and how best to communicate them.

Implications for Public Policy Makers. Consumers' increased willingness to finance a broad set of goods with interest-free deals raises serious concerns regarding consumer overspending and indebtedness. In 2018, a decade after the 2008 financial crisis, US household debt hit a record of $13.54 trillion. Of this, $870 billion represented outstanding credit card balances, with an average household credit card debt of $8,788. Between 2017 and 2018, credit card balances rose by $26 billion and reached a record high at the end of 2018 and their highest point since the end of 2008 (Federal Reserve Bank of New York 2019; Wallethub 2019). Other forms of nonhousing debt, such as vehicle and purchase installment loans, showed similar increases (Bricker et al. 2017; Federal Reserve Bank of New York 2019), suggesting consumers are increasingly willing to borrow for discretionary spending.

This raises the question whether interest-free deals represent an appropriate promotional tool to stimulate consumer

spending or whether such tools should be discouraged by policy makers because they may have detrimental effects on consumer welfare. Overspending is a major cause of household debt. Overspending is particularly dangerous for consumers who risk personal bankruptcy if they cannot fulfill their repayment obligations (US Congress Joint Economic Committee 2009). Our results suggest that interest-free deals may trigger overspending by enticing consumers to purchase products they would not normally consider purchasing on credit.

Interest-free deals also provide relatively easy access to consumer credit; something frequently mentioned as a major cause of the rise in personal bankruptcies (Cheema and Soman 2008). Interest-free deals are often tied to the use of store credit cards, which usually require relatively little information about the applicant's creditworthiness (Bernard 2009). Some retailers even directly provide their customers with unsecured loans. By making credit easily accessible, interest-free deals potentially put vulnerable consumers at risk.

Exorbitant penalty interest rates for defaults are another cause for the rise in personal bankruptcies (US Congress Joint Economic Committee 2009). If consumers use interest-free deals and miss a payment or fail to pay off the outstanding balance by the end of the promotional period, interest rates as high as 30% may apply (Australian Securities and Investments Commission 2011). Rather than charging pro rata on the outstanding balance, many retailers charge penalty interest on the full credit amount starting from the date of purchase. Not being able to service these extortionate charges accelerates personal bankruptcy. Thus, for all these reasons, from the perspective of consumer welfare, interest-free deals may represent a rather controversial sales promotion.

We urge further research to more closely examine when interest-free deal frames help and when they harm consumers. From an economic (time-value-of-money) perspective, interest-free deals save consumers money by deferring payments. However, from a public policy perspective, the answer will likely depend on consumers' financial stability: if consumers can service their debt, then borrowing money can be beneficial by maintaining liquidity, building credit, and spreading payments. Alternatively, when interest-free salient deal frames lead to credit overuse and inability to make payments, they will negatively affect consumer welfare.

While the above discussion highlights the potential harm that interest-free promotions for experiential products may have for consumers if it leads them to purchase and finance more than they can afford, it is possible that these promotions may benefit consumers by leading them to purchase experiential goods over materials ones. Prior research has shown that experiences can provide consumers with greater long-term happiness (e.g., Van Boven and Gilovich 2003) than can material goods. Therefore, interest-free promotions offer the potential to increase consumer welfare if they increase the likelihood that consumers opt for spending their money on happiness-enhancing experiences over material goods. On the other hand, consumers who use financing promotions, rather than paying in full at the time of purchase, may face financial constraints, and other research has shown that consumers facing financial constraints are more likely to choose materials over experiential goods because they seek goods with lasting utility (Tully, Hershfield, and Meyvis 2015). The between-subject nature of our studies did not allow us to directly investigate this, but we encourage future research to examine whether interest-free promotions influence the trade-offs that consumers make when they decide between using financing to obtain experiential versus material purchases, and the impact these decisions have on their happiness.

Implications for Managers. Retailers can benefit from using interest-free financing as it can provide a way to differentiate from competition and attract new customers who lack cash resources but can afford installment payments. Our findings suggest that managers of financial institutions and providers of experiential goods (e.g., travel agencies, wellness centers) may benefit by partnering to offer interest-free promotions. Interest-free financing may lengthen customer relationships and communications beyond the date of purchase. Additionally, interest-free financing offers retailers an additional revenue source from late payment fees and penalty interest. However, as noted above if not used responsibly, these retailer benefits may come at a large cost to consumers.

Our results suggest that managers offering financing for experiential goods should use explicit interest-free cues in their communications and avoid affective appeals. Finally, our results suggest they would benefit from using zero versus low nonzero interest rates.

Limitations and Future Research

This research also has limitations. First, our studies all involved hypothetical use of interest-free financing. Ideally, future research will examine consumer behavior in the face of real offers. Second, despite showing that consumers' payment decisions result from both affective and cognitive

processes, our focus was general, and future research should identify the specific thoughts and feelings involved in financing decisions. Third, future research should examine how differences in consumer characteristics (e.g., financial literacy, deal proneness) affect consumers' responses to interest-free financing and whether vulnerable consumers can be trained to avoid any negative effects of such promotions.

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