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The Effects of Consumer Loan Application Formats and Advertised Terms on Consumer Borrowing Decisions

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The Effects of Consumer Loan Application Formats and Advertised Terms on Consumer
Borrowing Decisions

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in Business Administration with a concentration in Marketing

by

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ABSTRACT

Consumers continue to demonstrate a willingness to accrue more debt. They are also more accepting of increased repayment risk via the acceptance of longer loan terms. Extant research on consumer borrowing consists primarily of experiments designed to assess consumer choices and understand how consumers evaluate loan attributes in relation to one another within consumer borrowing contexts (Kamleitner, Hoelzl, and Kirchler 2012; Ranyard et al., 2006). Thus, prior research examines consumer *responses* to loan information rather than the *generation* of loan parameters at the time of financing. With important implications for consumers, marketers of financial products, academic researchers, and federal regulators, this research seeks to understand how managerially relevant interventions and firm communications impact consumer borrowing preferences. Specifically, this research examines the role of consumer loan application formats and advertised terms in the consumer loan decision making process.

Essay 1 considers the effect of consumer loan applications leading with monthly payment versus loan amount elicitation on principal requests and ultimately consumer willingness to proceed with those requests. This research not only demonstrates an effect for an oft overlooked phenomenon (consumers' generation of loan requests) that actively uses two different elicitation procedures, but it also provides insight into the downstream consequences for consumers as well as financial institutions. Five studies demonstrate that the monthly payment (vs. loan amount) format leads to consumers requesting different principal amounts. For lower cost loans with a given term and interest rate, the monthly payment (vs. loan amount) format results in larger principal requests. This effect reverses for higher cost acquisitions because individuals' budget slack caps out around \$500 per month (Pew Charitable Trusts 2016). These studies provide

insight into how consumer loan application formats can affect consumer borrowing, as well as the psychological underpinnings responsible for the effect.

Essay 2 considers the effect of marketed reference points on consumer term preferences. Automobile dealers and financial institutions often promote varying term lengths to attract more buyers and increase sales. Yet, there is surprisingly little research that addresses the effects of advertised terms for promoted financing offers on consumer borrowing preferences. This research examines the effect of longer versus shorter advertised terms on term preferences via a dual process that relies on both the assimilation of advertised terms into one's internal reference term, as well as the belief that advertised terms are recommended terms by the dealer, as parallel mediators for the effect. Findings from five studies show that advertised terms have a significant influence on desired terms and that this effect does not depend on consumers' level of financial literacy. Furthermore, adding a shorter default loan term to consumer loan applications, which is a simple change financial institutions can implement in their systems, attenuates the effect of longer advertised terms on consumer loan term preferences. These findings have implications for marketers of financial products, academic researchers, consumers, and public policy.

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DEDICATION

This dissertation is dedicated to my amazingly supportive and encouraging husband, Douglass, and our beautiful children, Xavier, Owen, Taliyah, and Caleb, who motivate and inspire me to keep learning, keep growing, and keep questioning the world around us in hopes of contributing to a better tomorrow. I am forever grateful for their love and support.

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INTRODUCTION

Motivation for the Dissertation

Consumers continue to demonstrate a willingness to accrue more debt often with increased repayment risk. Notably, they are more accepting of a type of consumer loan that has long been available: personal loans. By the close of 2018, unsecured personal loan debt reached an all-time high of \$138 billion, up \$21 billion from the prior year, with more than 19 million consumers having an unsecured personal loan (TransUnion 2019). Interestingly, not only are consumers taking out more personal loan debt, they are taking out that debt more quickly; personal loan debt growth surpassed credit card, automobile, mortgage and student debt growth in 2018 (Tatham 2019). Due to the lack of collateral associated with unsecured personal loans, such behavior could have significant implications for financial institutions, especially since consumers appear to be more willing to forgo personal loan repayments, as evidenced by personal loan delinquency rates almost two times that of other consumer loan types (TransUnion 2019).

Furthermore, consumers have become increasingly accepting of lengthier automobile loan terms. In March 2020, the average automobile loan term exceeded 70 months for the first time in the United States (Akin 2020), while auto loans with terms of 72 or 84 months accounted for 42% of auto loan originations in 2017, up from 26% in 2009 (Consumer Finance Protection Bureau 2017). Such financing preferences have persisted despite financial expert advice to not exceed a 60-month term (Axelton 2020). While longer loan terms can mean lower monthly payments, longer loan terms can also increase consumers' repayment risk or the possibility of defaulting on the loan, the total cost of the loan, and the chance that the consumer will owe more than the vehicle is worth when trading it in (Consumer Finance Protection Bureau 2017).

Understanding factors that influence such financing preferences has the potential to inform interventions firms can use to help improve consumers' financial decision making during the debt acquisition process. Such efforts could not only benefit the consumer, but also the financial institution since improved financial decision making can reduce financing costs and repayment risks for the lender. Yet, prior research has primarily focused on understanding consumer *responses* to financing attributes rather than their *generations* of said requests. Specifically, prior research has shown that consumer *responses* to differing loan attributes affect consumer financing preferences, as well as evaluations of financial products (Kamleitner, Hoelzl, and Kirchler 2012; Ranyard et al. 2006). This research advances our understanding of consumer financial decision making by evaluating how consumers *generate* numeric values for loan attributes during the financial decision-making process, as well as subsequent acceptances of loan requests.

When consumers request to borrow money from financial institutions, loan applications could prompt consumers to provide a loan amount or a monthly payment. These loan application formats (loan amount - LA vs. monthly payment - MP) are alternative methods of eliciting an acceptable loan. While many features of the consumer loan application process are regulated by the federal government in the United States, the use of differing attributes during the application process is not. A review of publicly available consumer loan applications indicates many applications ask for desired loan amounts.

Furthermore, when consumers apply for debt, lenders may also request consumers provide a desired loan term. Over the past several years, automobile lenders have increasingly offered longer loan terms (which allow for lower monthly payments) so consumers can afford higher-priced vehicles, and consumers have become increasingly accepting of lengthier

automobile loan terms. Prior research on consumer borrowing preferences suggests consumers prefer to match loan terms with a financed expenditure's estimated useful life (Hirst, Joyce, and Schadewald 1994; Tully and Sharma 2018). According to this prior research, a consumer who anticipates owning an automobile for five years would be expected to desire a five-year term loan. In other words, consumers' financing preferences would be as well-defined as their anticipated window of benefits. However, in real life, consumers commonly violate this expectation – that is, their window of benefits is ill-defined, or their loan term and window of benefits do not match.

One might expect consumers to place greater weight on the interest rate and/or repayment cost of their request, as this corresponds to the “price” of obtaining the loan. However, consumers can be sensitive to other attributes or factors related to the financial offer, such as credit type, repayment duration, and repayment flexibility. These factors affect consumers' debt financing choices, such as whether to finance a purchase or pay in cash, how much of a purchase to finance, and with which lender to finance (Greenberg and Hershfield 2018; Ranyard et al. 2006). For instance, in light of their general debt aversion, consumers prefer shorter-term loans, even when longer-term loans are financially more advantageous (Kamleitner, Hoelzl, and Kirchler 2012; Wonder, Wilhelm, and Fewings 2008), and take out longer loans when monthly payment (vs. repayment cost) is brought to the forefront of consumers' minds (Lunn et al. 2016),

Prior research on consumer borrowing also underscores the importance consumers place on monthly payments (Ranyard and Craig 1995). Specifically, consumers are more sensitive to the monthly payment attribute than they are to the repayment cost attribute of their financing request and have difficulty understanding the relationship between the two attributes. Recent research suggests that consumers not only prefer to think about monthly payments, but also to

attain salient monthly payments for automobile loans. To attain those monthly payments, consumers accept longer terms and ultimately higher financing costs. Such behavior is consistent with consumers possibly having specific, range-restricted monthly payments in mind (Argyle, Nadauld, and Palmer 2020). At the same time, how consumers generate their loan request amount and term preferences remains unknown.

Classical preference construction theories suggest preferences are well-defined (Payne, Bettman, and Johnson 1992). However, more recent research demonstrates preferences are often constructed rather than revealed during elicitation procedures (Bettman, Luce, and Payne 1998; Slovic, 1995). As a result, different elicitation procedures can and do influence consumer preferences (Monga, May, and Bagchi 2017; Slovic et al. 1990). When constructing numeric preferences, consumers make use of contextual information, which provides external, environmental cues consumers use to inform their responses (Bettman et al. 1998). Consumers may also construct preferences by retrieving knowledge that is consistent with task features (Chernev 2011; Gourville 1998; Mussweiler and Strack 2000; Ülkümen et al. 2008). Thus, consumers' *generation of* loan requests could also be influenced by factors that are controllable by marketers.

This research suggests that the use of distinct loan application formats (loan amount vs. monthly payment) presented during the loan application process will affect consumer borrowing decisions. Additionally, it is hypothesized that consumers consider the relevant external cue of an advertised term, which automobile lenders frequently promote through various channels of marketing communications. Lastly, in addition to evaluating the effects of these managerially relevant interventions and cues on consumer borrowing decisions, this research also studies the processes by which loan application formats and advertised terms influence borrowing decisions.

Objectives of the Dissertation

To enhance our understanding of how consumers generate their financing preferences, this dissertation examines the effect of loan application formats and advertised terms on consumer loan request amounts and desired terms. In so doing, this research draws attention to seemingly minor interventions firms can implement to improve consumer financial decision making. Thus, using a total of 11 studies across two separate essays, this dissertation will address five focal research objectives.

1. Empirically demonstrate how loan application formats influence consumer loan request amounts, as well as acceptances of loan requests, during the loan application process;
2. Examine the role of estimated cost and budget slack in the generation of request amounts and rule out alternative explanations for the effect;
3. Empirically demonstrate how advertised terms influence term preferences via a dual process that relies on both the assimilation of advertised terms into one's internal reference term, as well as the belief that advertised terms are recommended terms by the dealer, as well as rule out alternative explanations for the effect;
4. Demonstrate how these positive direct and indirect effects of longer (vs. shorter) advertised terms are attenuated when loan applications use shorter default terms;
5. Examine financial literacy as a moderator for the effect advertised terms on desired terms.

Overview of Theoretical Contributions

In addressing the primary research objectives outlined above, both essays offer theoretical and conceptual contributions. Essay 1 demonstrates that loan application formats affect consumer financial decision making. Specifically, this essay introduces the idea that the loan application format (loan amount vs. monthly payment) used during the consumer loan application process impacts principal loan requests because the application formats prime the consideration of scale-compatible information, which consumers anchor on and use to inform their final requests. Across a series of five studies, this research demonstrates that when loan amounts are elicited, consumers think of and request the cost of the expenditure they seek to finance. When monthly payments are elicited, however, consumers selectively recruit their monthly budget slack to construct and then request monthly payments they perceive to be affordable. For lower cost loans with a given term and interest rate, the monthly payment (vs. loan amount) format results in larger principal requests. This effect reverses for higher cost acquisitions because individuals' budget slack caps out around \$500 per month. Thus, this essay extends preference construction, scale compatibility, and selective accessibility research streams by considering the impact of loan application formats on consumer financial decision making. Lastly, these findings support future research that considers how managerially relevant interventions can influence consumer financial decision making during the loan application process.

The second essay extends research on preference construction and internal reference points to a novel financial retailing context, contributes to a small body of literature on information leakage, which has evaluated consumer response to perceptions of information

communicated in messaging, and builds on literature on defaults as a practitioner intervention. Essay 2 findings extend the growing body of preference construction (e.g., Bettman et al. 1998; Monga et al. 2017; Slovic 1995) and internal reference point (e.g., Lichtenstein and Bearden 1988; Monroe 1990; Urbany, Bearden, and Weilbaker 1988) literatures in a debt financing context by demonstrating the effects of longer versus shorter advertised terms on term preferences. If consumer financing preferences were well-defined, consumers would not be influenced by external cues when asked to provide their preferences. However, because preferences are often constructed rather than revealed during elicitation procedures, such as when asked to indicate a desired loan term, findings from the second essay demonstrate that consumers' term preferences are influenced by advertised terms such that consumers desire longer (vs. shorter) terms after observing longer (vs. shorter) advertised terms.

Furthermore, the findings show that term preferences are influenced by advertised terms via a dual process that relies on both the assimilation of advertised terms into one's internal reference term, as well as the belief that advertised terms are recommended terms by the dealer. This effect does not depend on consumers' level of financial literacy. These findings also support future research that considers how managerially relevant interventions can influence consumer financial decision making during the loan application process.

Overview of Substantial Contributions

The results of this dissertation have clear implications for consumer well-being, public policy, and finance managers and as a result, offer multiple substantive contributions. For example, by identifying selective accessibility as the underlying process consumers undergo to construct monthly payments in Essay 1, this research is able to identify the anchor consumers

recruit and adjust away from (budget slack), which ultimately restricts the range of principal requests for a given term and interest rate. In so doing, findings from the first essay not only bring attention to the effect of a seemingly minor intervention on consumers' generation of loan requests, but also show that using the monthly payment elicitation can have conflicting implications for consumers and finance managers. For instance, findings from the first essay reveal a willingness for consumers to accept loans in excess of what they need to complete purchases, which is to the benefit of financial institutions that can generate larger loan volumes while servicing fewer loans. These effects will be of interest to public policy makers who work to ensure financial institutions help rather than hinder consumer financial decision making. Further, by understanding the role of budget slack in request amounts, findings from the first essay indicate that financial service providers can better target their consumers with more effective financing promotions.

In addition, Essay 2 offers another set of substantive contributions, primarily for lenders, particularly in the auto financing industry. Specifically, the studies provided in this essay supply lenders with consumer insights to better understand the role of their advertised financing offers in consumer financing decisions. Findings indicate that financial service firms can promote advertised terms that align with firm goals. For instance, results demonstrate that simple term manipulations in ads can affect consumer decisions about a loan. Longer advertised terms can benefit lenders who want to increase sales of higher priced loans in the short term, particularly to financially constrained consumers. At the same time, shorter advertised terms can benefit lenders who want to increase sales turnover more frequently in the long term; shorter loan terms allow consumers to pay off their financed expenditures more quickly, and thus trade in and finance major purchases, such as new automobiles, more often. Lastly, applying research on defaults

(Goswami and Urminsky 2016; Johnson and Goldstein 2003; Madrian and Shea 2001; McKenzie, Liersch, and Finkelstein 2006), adding a shorter default loan term to consumer loan applications, which is a simple change financial institutions can implement in their systems, attenuates the effect of longer advertised terms on consumer loan term preferences. Thus, financial service firms can not only promote longer terms to attract consumers but also nudge consumers towards less risky loan options by using a shorter term default in the loan application.

Structure of the Dissertation

To address the five key objectives of this research, this dissertation includes two distinct essays. To address the first two research objectives, the first essay draws from extant literature to evaluate the effect of loan application formats on consumer loan requests and ultimately the acceptance of their requests. One pilot and five experiments are conducted to evaluate the effect of application formats as well as the psychological mechanism underpinning the effect. The final study uses a preregistered incentivized life simulation with consequential decisions that confront participants with balancing their quality of life against accumulating savings while avoiding account overdrafts. To address the final three research objectives, the second essay in this dissertation draws from preference construction literature to develop a conceptual framework to examine the effects of dealer advertised terms on desired terms via a dual process that relies on both the assimilation of advertised terms into one's internal reference term, as well as the belief that advertised terms are recommended terms by the dealer. Five studies are used to address these research objectives and test this conceptual framework. Both stand-alone essays include an introduction, conceptual framework with corresponding hypotheses, multiple experiments to test these predictions, and a general discussion of the theoretical and substantive contributions of the

research. Finally, this dissertation concludes with a recapitulation of the findings and contributions of the research, and a discussion of future research opportunities is offered.

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ESSAY 1

**THE EFFECT OF LOAN APPLICATION FORMATS ON CONSUMER LOAN
DECISIONS**

Alicia M. Johnson

Daniel Villanova

Ronn J. Smith

Abstract

Do different loan application formats affect consumer loan requests? Five studies show that when consumers are asked to provide a preferred monthly payment (vs. loan amount), they request different principal amounts. This is because these loan application formats differ in the scale-compatible information they bring to consumers' mind. When loan amounts are elicited, consumers think of and request the cost of the expenditure they seek to finance. When monthly payments are elicited, however, consumers think of their monthly budget slack to construct and then request monthly payments they perceive to be affordable. For lower cost loans with a given term and interest rate, the monthly payment (vs. loan amount) format results in larger principal requests. This effect reverses for higher cost acquisitions because individuals' budget slack caps out around \$500 per month. These studies provide insight into how consumer loan application formats can affect consumer borrowing, as well as the psychological underpinnings responsible for the effect. Theoretical, managerial, and consumer welfare implications of the findings are discussed.

Introduction

Consumer debt, excluding housing, consists of four major loan types: student loans, auto loans, credit cards, and personal loans. Recently, consumers have demonstrated a willingness to accrue more debt by utilizing personal loans, a consumer loan type that has long been established but is gaining in popularity due to the emergence of the FinTech industry and the associated ease with which consumers can apply for additional debt (TransUnion 2019). While student loan, auto loan, and credit card debt account for the majority of outstanding non-housing consumer debt (90%), personal loan debt was the fastest growing type of non-housing consumer debt for the six-year period between 2014 and 2020 (Stolba 2021).

Despite such growth, extant research has all but ignored consumer behavior surrounding personal loan decisions. Rather, research has focused on loan types distinct from personal loans, namely credit cards (Frank 2011; Prelec and Simester 2001), student loans (Zhang, Wilcox, and Cheema 2019), and mortgages (Leei and Hogarth 1999; Lacko and Pappalardo 2010). Moreover, research on consumer borrowing consists primarily of experiments designed to assess consumer choices and understand how sensitive consumers are to different loan attributes (Kamleitner, Hoelzl, and Kirchler 2012; Ranyard et al. 2006). Thus, prior research examines consumer *responses* to loan information rather than the *generation* of loan parameters at the time of financing. In light of the growth of personal loans and these research gaps, we focus on personal loans and how consumers *generate* their principal requests for these loans. Specifically, we consider how distinct loan application formats affect consumer financing decisions.

When consumers request to borrow money from financial institutions, loan applications could prompt consumers to provide a loan amount or a monthly payment. These loan application

formats (loan amount - LA vs. monthly payment - MP) are alternative methods of eliciting an acceptable loan. A review of publicly available consumer loan applications indicates many applications ask for desired loan amounts. Surprisingly, most do not ask for desired monthly payments, although many online calculators are designed specifically to generate loan parameters for consumers from their desired monthly payment. Our own interviews with eight consumer loan officers indicate consumers prefer to discuss monthly payments, a finding that also receives support from prior research (Ranyard and Craig 1995). Further, during four years of professional experience in the financial services industry, the first author observed that verbal in-person applications may lead with either the loan amount or monthly payment, depending on loan officer and consumer preferences. Thus, understanding how consumers might differentially respond to LA or MP application formats is an important question for managers and consumers alike. We demonstrate that principal requests are influenced by format-relevant information recruited by consumers during the application process, and we identify how this process affects borrowing for personal loans.

This research makes three main contributions to the literature and has implications for consumers, finance managers, and public policy. First, we find evidence that loan application formats affect consumer financial decision making and reveal another violation of the procedural invariance assumption of preference theories. Second, we contribute to the selective accessibility and scale compatibility literatures by showing that consumers recruit information congruent with loan application formats, and they use this information to formulate their responses. While such selective accessibility processes have been previously suggested (Chaxel 2014; Mussweiler and Strack 1999), no prior research has examined whether consumers spontaneously self-generate numeric values unique to a judgment format without being primed to do so. Third, by identifying

selective accessibility as the underlying process consumers undergo to construct monthly payments, we are able to identify the anchor consumers recruit and adjust away from (budget slack), which ultimately restricts the range of principal requests for a given term and interest rate. In so doing, we not only bring attention to the effect of a seemingly minor intervention on consumers' generation of loan requests, but we also show that using the monthly payment elicitation can have conflicting implications for consumers and finance managers. For instance, we find a willingness for consumers to accept loans in excess of what they need to complete purchases, which is to the benefit of financial institutions that can generate larger loan volumes while servicing fewer loans. We elaborate on these implications in the General Discussion.

The remainder of this article is organized as follows. First, we develop our conceptual framework and discuss our hypotheses of the relationships between loan application formats, principal requests, and loan acceptances. Then, we describe the five experiments in our empirical investigation. We end with a discussion of theoretical contributions, implications for marketers of financial products, consumers, and public policy, and suggestions for future research.

Theoretical Development

Extant research on consumer borrowing consists primarily of experiments designed to assess consumer choices and understand how sensitive consumers are to different loan attributes (Kamleitner, Hoelzl, & Kirchler, 2012; Ranyard et al., 2006). Prior research also underscores the importance consumers place on monthly payments. Specifically, consumers are more sensitive to the monthly payment than the total financing cost of their request and have difficulty understanding the relationship between the two attributes (Ranyard and Craig 1995). Moreover,

consumer spending is influenced by the framing of student loan debt (i.e., as monthly payment versus loan amount) (Zhang, Wilcox, and Cheema 2019). Presenting larger (vs. smaller) student loan debt amounts as monthly payments (vs. loan amounts) reduces the perceived difficulty of repaying the loans and maintains consumers' motivation to pay down their debt. As a result, consumers spend less money on discretionary purchases. Recent research also suggests that consumers not only prefer to think about monthly payments, but also to attain salient monthly payments for automobile loans. In order to attain those monthly payments, consumers accept longer terms and ultimately higher financing costs. Such behavior is consistent with consumers possibly having specific, range-restricted monthly payments in mind (Argyle et al. 2020).

Consumers also make tradeoffs between monthly payments and repayment terms dependent on individual debt preferences, as well as the salience of differing loan attributes. For instance, in light of their general debt aversion, consumers prefer shorter-term loans, even when longer-term loans are financially more advantageous (Kamleitner et al. 2012). At the same time, consumers prefer longer-term loans when monthly payment (vs. total financing cost) is brought to the forefront of consumers' minds (Lunn, Bohacek, and Rybicki 2016).

While each of these findings contributes to our understanding of how consumers *respond* to varied financial attributes, they do not reveal how consumers *generate* their initial requests. We hypothesize that consumers' *generation* of loan requests will be influenced by the different loan application formats used during the loan application process. Specifically, loan application formats will increase the salience of scale compatible, format-consistent information in the consumers' mind, and subsequently bias their requests of principal amounts. These predictions are derived from previous research on preference construction, scale compatibility, and selective accessibility, which we discuss next.

Classic preference theories suggest that normatively equivalent procedures that use different elicitation methods should not influence consumer preferences, an axiom called procedural invariance (Payne, Bettman, & Johnson, 1992). However, previous research demonstrates preferences are often constructed rather than revealed during elicitation procedures (Bettman et al., 1998; Slovic, 1995). As a result, different elicitation procedures can and do influence consumer preferences (Monga, May, and Bagchi 2017; Slovic et al. 1990). For example, when consumers are asked the maximum amount of time they would spend in return for a given amount of money, consumers respond with a higher wage rate (i.e., dollars per hour) than when asked to indicate the minimum amount of money they would accept in return for spending a given amount of time (Monga et al. 2017).

When constructing numeric preferences, consumers make use of contextual information, which provides external cues consumers use to inform their responses (Bettman et al. 1998). Consumers may also construct preferences by retrieving knowledge that is consistent with task features (Chernev 2011; Gourville 1998; Mussweiler and Strack 2000; Ülkümen et al. 2008). For example, when asked the average price of a German car immediately after being asked whether German cars were priced higher or lower than a specific anchor value, participants responded with higher estimates when the anchor was a high number (vs. low number). Participants were also quicker to identify anchor-consistent than anchor-inconsistent words (e.g., words associated with high-priced cars in the high anchor condition) indicating consumers activated other knowledge consistent with the anchor value (Mussweiler and Strack 2000). Slovic et al. (1990) demonstrate consumers retrieve knowledge that is consistent with task features, such as the response mode. For example, after reviewing a list of 12 companies with information on the previous year's market value of each company (in dollars) and their profit standing (the rank of

the company), participants' current-year company estimates were more accurate when their response scale matched the information provided. Participants weighted the profit standing rankings information more heavily when asked to predict the current-year's company ranking. Similarly, participants weighted the market value information more heavily when asked to predict the current-year's company market values. Thus, participant responses between the two response scales were more accurate when they matched (vs. did not match).

The previous research illustrates that different task features affect the information that is called to mind when forming estimates or even preferences. A similar stream of research on selective accessibility suggests the same. The process of selectively recruiting and subsequently activating a subset of information from one's memory of available information is called selective accessibility (Chaxel 2014; Mussweiler and Strack 1999). Selective accessibility also fits into the broader accessibility/diagnosticity framework. Prior research indicates that the most selectively accessible values are those that are perceived as diagnostic to the task (Mussweiler and Strack 1999) or have been made more accessible through contextual features such as recent activation, motivation and processing goals, or retrieval cues (Feldman and Lynch 1988). Once a numeric value is activated (i.e., after being made selectively accessible from one's available information set), it is used as a standard of comparison and either accepted as the response value, or adjusted away from until an acceptable response value is reached (Feldman and Lynch 1988; Strack 1992). Final responses either assimilate to or contrast from the recruited numeric value. Much of the prior research on selective accessibility claims that consumers generate numeric values via the selective accessibility process only after viewing externally provided values (Ülkümen et al. 2008; Chapman and Johnson 1994; Strack and Mussweiler 1997). In other words, selective accessibility does not occur in the absence of externally provided numeric information, such as

when consumers internally self-generate numeric values. However, Chaxel (2014) finds that when primed to do so, consumers can internally self-generate numeric values via a selective accessibility process. It remains unknown, however, whether consumers *spontaneously* generate numeric values via a selective accessibility process without being primed to do so.

We hypothesize that the two different loan application elicitation methods will affect principal requests because the elicitation methods increase the salience of scale compatible amounts, which prompts the selective accessibility of differing knowledge structures consumers consider when constructing their requests. Specifically, for the loan amount format, consumers recruit the cost of their expenditure. Cost has a numeric scale that is compatible with the response format (loan amount being the principal needed) and is applicable to and thus diagnostic for the elicitation method. In other words, cost is perceived as an appropriate input for the loan amount format. For the monthly payment format, however, consumers construct what they perceive to be is an affordable monthly payment. In so doing, consumers selectively recruit their monthly budget slack. In line with prior research, we define budget slack as “the perceived surplus (or deficit) of spare money an individual has at a given point in time” (Berman et al. 2016, p. 536). In other words, monthly budget slack is the amount of income consumers have left over at the end of the month after all other expenses are paid. After recruiting their monthly budget slack, consumers only slightly adjust for the cost of the expenditure. This is because consumers in this situation seek an affordable amount, or one that the consumer believes they can pay each month without causing an undue financial constraint to their monthly finances. Budget slack has a numeric scale that is compatible with the response format (monthly payment being monthly) and is applicable to and thus diagnostic for the elicitation method. In other

words, budget slack is perceived as an appropriate input for the monthly payment format.

Formally, we hypothesize:

H1a: When asked to provide a monthly payment, consumers will selectively recruit what they perceive to be is an affordable monthly payment of their purchase.

When asked to provide a loan amount, consumers will recruit the cost of their purchase.

H1b: Consumer responses in the monthly payment format will correlate more strongly with budget slack while responses in the loan amount format will correlate more strongly with costs.

When provided all other loan parameters, consumers could attempt to calculate the remaining parameter. For instance, when asked to provide a loan amount, no calculation would be necessary as consumers could use the cost of the expenditure as their request amount. When asked to provide a monthly payment, if consumers are given the loan amount or expenditure cost, term, and interest rate, consumers could attempt to calculate the exact implied monthly payment rather than generate their own request. If consumers calculate correctly, the principal amounts between the two formats would be equivalent, yet prior research finds that consumers often do not calculate due to the additional cognitive effort that is required compared to using alternative strategies (e.g., Morwitz, Greenleaf, and Johnson 1998). Our proposed selective accessibility process is an alternative strategy that involves focusing on either cost (in the loan amount format) or budget slack (in the monthly payment format). However, the particular pattern of differences in principal requests that results from these different foci is a complicated matter

as the monthly payment (vs. loan amount) format could result in higher or lower principal payments depending on how exactly affordable monthly payments based on budget slack relate to expenditure costs.

To begin hypothesizing a pattern, one needs an estimate of consumers' typical budget slack. In 2014, median monthly budget slack in the United States was estimated at \$495 (Pew Charitable Trusts 2016; we also found in S4 that the mean budget slack of our sample was about \$500). If consumers felt comfortable spending their full amount of slack - about \$500 - on monthly payments for a new personal loan, this would serve as an upper bound for monthly payment requests (to be fair, this would be a somewhat fuzzy upper bound as the \$500 number is just a cross-sectional summary statistic - slack has variance, and consumers may be able to adjust their spending in other categories to increase their slack if need be). For the loan parameters we use in our studies (3 year term and a 10.22% interest rate), this corresponds to a principal amount of \$15,446. Mathematically, this means that for expenditures that cost more than about \$15,500, principal amounts elicited through monthly payments based on spending full slack will be lower than expenditure cost. For expenditures that cost less than about \$15,500, principal amounts elicited through monthly payments based on spending full slack will be higher than expenditure cost.

Two factors make this an unlikely switching point and lead us to believe the fulcrum occurs at a lower expenditure cost. First, practically, consumers will likely not want to part with *all* of their monthly budget slack, which will push the switching point down. For example, if consumers felt comfortable parting with 4/5 of their slack, \$400 would correspond to \$12,357 as the switching point (see arrow 1 in Figure 1.1). Second, since consumers do realize that the size of monthly payments in part reflects the expenditure cost (Argyle et al. 2020), we had also stated

we believe consumers will slightly adjust their slack-based request for the expenditure cost, which implies that while slack may serve as an upper bound for monthly payment requests, it will not simultaneously serve as a lower bound. Accordingly, there will be a slope to their monthly payment requests with respect to expenditure costs, albeit not as steep as that prescribed by correct calculation. Although the exact calibration of this relationship is an empirical question, this is the second reason the switching point is likely to be lower than that implied by a rule of spending their full slack (see arrow 2 in Figure 1.1). Identifying this switching point is critical to defining specific hypotheses about the effects of loan application formats on principal requests, and although we expect it to fall below \$15,500, nailing it down requires data.

To understand the relationship between costs and perceived affordable monthly payments and to develop our hypotheses about how loan application formats would affect principal request amounts, we ran a pilot study, which we discuss next.

Pilot Study

Five hundred and fifty-four CloudResearch-approved (Litman, Robinson, and Abberbock 2017) MTurk participants participated in this 10 cell (expenditure) between-subjects study for monetary compensation. Participants reviewed a description of personal loans, which was adapted from a real overview (Brozic 2020), and which noted an average loan term and interest rate. Participants then saw an image and brief description of a loan purpose including the expenditure cost and were asked to indicate what they believed people generally pay as a monthly payment for personal loans taken out to pay for that loan purpose. We selected a variety of loan purposes to sample a range of cost levels and categories that could be financed with

personal loans (six-day camping vacation, 14-day overseas vacation, basic washer/dryer set, high-end washer/dryer set, above-ground pool, in-ground pool, roof repair, home addition, backyard wedding, and destination wedding; see Appendix 1.1 for the stimuli and scenarios).

Monthly payment responses were open-ended and resulted in some outliers. To address these outliers, we completed the following: first, we eliminated responses for participants that provided influential MP responses (e.g., MP = \$16,000, \$15,000), defined as a Cook's D value greater than $4/N$. Second, we eliminated responses less than \$10, and responses that were more than three standard deviations above the mean for each condition. In this study, five responses were identified as influential values, and 14 additional responses were identified as other outliers, leaving 535 participants in our analysis (278 women, $M_{\text{age}} = 40$, modal education = bachelor's degree).

Plotting perceived monthly payments against costs, we see what monthly payments are perceived as usual and how they are associated with the underlying expenditure cost (see Figure 1.1). The average monthly payments fall in a narrower range (coefficient of variation [CV]: .41) than the given costs (CV: .60). Interestingly, given the provided loan characteristics (i.e., three years as a common personal loan term, 10.22% as an average interest rate), the principal amounts implied by these monthly payments are not well calibrated to the expenditure costs. For lower costs, the principal amounts implied by monthly payment responses are higher than those that would be generated based on cost (see Figure 1.2, e.g., for the six-day vacation, a monthly payment of about \$200 corresponds to a principal amount of approximately \$6,000 [black line], but a principal amount equal to expenditure cost would only be \$3,150). For higher costs, the principal amounts implied by monthly payment responses are lower than those that would be generated based on cost (e.g., the destination wedding).

With these results in mind, at lower cost levels (i.e., less than approximately \$8,000), we would expect consumers presented with the monthly payment format to generate principal requests that are higher than those generated by individuals presented with the loan amount format. In the remainder of our investigation, we find this is the case, and we provide evidence that different elaborations drive this discrepancy. Based on this pilot study, we also expect these effects to reverse at higher cost levels (i.e., more than approximately \$8,000). Further, our theory suggests that if we can successfully manipulate perceived budget slack upwards, we can leverage consumers' focus on budget slack to reverse the effect at higher cost levels. Our empirical investigation uses cost as a process-relevant moderator and high slack as a process-relevant boundary condition to study how the selective accessibility of cost or slack drives the effect of loan application formats on loan decisions. Thus, we can state these hypotheses formally:

H2a: For lower cost items, a monthly payment (vs. loan amount) format will lead to consumers requesting larger principal amounts.

H2b: For higher cost items, a monthly payment (vs. loan amount) format will lead to consumers requesting smaller principal amounts.

Overview of Studies

We test these hypotheses in five studies. Throughout our experiments, we utilize the same basic paradigm. In order to isolate the effect of application formats on principal requests, we keep the term and rate constant throughout our studies. For the term, we selected the midpoint for common personal loan terms (three years), and for the rate, we selected the average

interest rate for short-term loans by commercial banks as of February 2018 (10.22%) (Luthi 2019). Participants imagine they are at a financial institution applying for a personal loan to finance an expense they do not currently have the funds to pay for. We include information about personal loans so that all participants have the same information regarding available personal loan options in the marketplace. We vary which loan application format (monthly payment / loan amount) participants use, and they then view a financial summary that provides their loan amount, monthly payment, interest rate, term, and total financing cost, so participants are fully informed. Last, participants are asked whether they would like to proceed with the loan based on the information in their financing summary.

In Study 1, we investigate the main effect; a monthly payment (MP) versus loan amount (LA) format leads to larger principal requests for a lower cost purchase (H2a). In Studies 2 and 3, we investigate our hypothesized selective accessibility account via participant elaborations (Epley and Gilovich 2001) (H1a) and rule out differences in perceived task complexity as an alternative explanation. In Study 3 we also manipulate expenditure cost and find that the MP (vs. LA) format leads to larger principal amounts at lower costs and smaller principal amounts at higher costs, as predicted by our theory (H1b, H2a-b). In Study 4 we manipulate budget slack and find that consumers with higher budget slack request higher monthly payments (H1b), and we also find participants indicate a high of degree of involvement with the task. In Study 5, we test our effect using a preregistered incentivized life simulation with consequential decisions that confront participants with balancing their quality of life against accumulating savings while avoiding account overdrafts. Data and materials are available on OSF at https://osf.io/jcknu/?view_only=474d28a968bc4f8ba8df2999e83463d3.

Study 1: The Effect of Loan Application Formats on Principal Requests

We hypothesized that the two consumer loan application formats (monthly payment and loan amount) affect principal requests during the consumer loan application process.

Specifically, we expect that when consumer loan applications have applicants provide a desired MP (vs. LA), individuals will end up requesting larger principal requests. The goal of this study is to demonstrate the effect of consumer loan application formats on principal requests for a lower cost purchase.

Method

One hundred and fifty-one CloudResearch-approved MTurk participants participated in this two condition (Application format: MP vs. LA) between-subjects study for monetary compensation. Participants imagined that they wanted to go on a six-day, nature inspired vacation that cost \$3,150, for which they would need to take out a personal loan. After reviewing a description of the vacation, including the expenditure cost, image, and trip details, participants reviewed a description of personal loans, which was adapted from a real overview (Brozic 2020). Specifically, participants read the following:

A personal loan is a type of installment loan where you borrow money from a bank, credit union, or online lender and pay it back in fixed monthly payments, or installments across a set period of time. Personal loan amounts range from a few hundred to several thousands of dollars, and you can usually use the money for any reason without much, if any, follow-up from the lender. Interest rates and repayment periods can vary widely, and currently average 10.22% APR and thirty-six months (three years). Most personal loans

are “unsecured”, meaning they are not backed by collateral, and are thus often referred to as signature loans.

Participants then responded to consumer loan application questions as if they were applying in-person for a loan from a financial institution and were randomly assigned to provide either a desired MP or LA. Responses in the LA condition were the principal requests, and we converted responses in the MP condition to principal requests using the specified term and interest rate.

Participants then viewed a summary of their financial scenario based on the amount they provided. The summary included the principal amount, monthly payment, interest rate, repayment length, and repayment cost based on their initial request, and we specified the same interest rate and term used in the personal loan description for all participants. Participants were then asked if they would like to proceed with the loan (yes/no). Then participants completed an attention check where they selected the purpose for their loan application. Finally, participants completed demographic questions, including reporting their personal gross income (1 = less than \$20,000, 8 = \$140,000 or more).

Participant loan application responses were open-ended and resulted in some outliers. To address these outliers, in this study as well as future studies, we followed the same data cleaning process: first, we eliminated responses for participants who failed the attention check (1). Second, we eliminated responses for participants that provided influential LA and MP responses (e.g., MP = \$3,500), defined as a Cook’s D value greater than $4/N$ (3). Third, we eliminated LA responses less than \$100, MP responses less than \$10, and responses that were more than three standard deviations above the mean for each condition (2). This left 145 participants in our analysis (63 women, $M_{\text{age}} = 36$, modal education = bachelor’s degree). In all our studies, the

patterns are mostly the same, but the outlying observations not only inflate standard errors but also bias the means and should be excluded (see Web Appendix 1.3 for more detail).

Results and Discussion

Principal Requests. To assess the effects of loan application formats beyond individual financial circumstances, we included income as a covariate (we also do this for all subsequent analyses). We used heteroskedasticity-consistent standard errors (HC3; Hayes and Cai 2007) to account for heteroskedasticity in our continuous dependent variables (Breusch-Pagan test: $\chi^2(1) = 64.48, p < .001$).

A regression with principal request as the dependent variable, and income and loan application format as predictors revealed that loan application format had a significant effect on principal requests. Consistent with our hypothesis, participants in the MP condition requested significantly larger principal requests ($M = \$6,193, SD = \$2,561$) versus participants in the LA condition ($M = \$3,113, SD = \$2,560; t(142) = 6.94, p < .001, d = 1.20$). The effect of income was non-significant ($p = .30$).

Loan Decisions. A logistic regression with loan decision as the dependent variable indicated a significant effect of loan application format on likelihood to accept the loan if approved (MP: 42.0% vs. LA: 67.1%, $\chi^2(1) = 9.32, p = .002$). Income was a non-significant predictor ($p = .36$). Participants were less likely to proceed with the loan in the MP versus LA condition. This is not surprising since their principal requests exceeded the cost of the vacation, and, with a real loan officer, they could potentially revise the loan parameters to bring these more in line. What is remarkable, however, is that many participants still accepted the loan, and this resulted higher aggregate loan origination in the MP (vs. LA) condition. An analysis of loan

originations between the two conditions revealed aggregate loan totals in the MP condition were larger than in the LA condition (MP = \$170,834 vs. LA = \$162,900), underscoring the potential impact of this seemingly minor intervention.

Furthermore, restricting the analysis of principal requests to those who proceeded with the loan replicated the effect of loan application format ($M_{MP} = \$5,920$, $SD = \$2,213$ $M_{LA} = \$3,177$, $SD = \$2,195$; $t(77) = 4.11$, $p < .001$, $d = 1.24$). Thus, not only were aggregate originations greater in the MP (vs. LA) format, the average origination was greater, too.

Merely asking for a preferred monthly payment, rather than a loan amount, increased principal requests. While this provides initial evidence for our hypothesized main effect, it does not reveal the underlying psychological mechanism that explains this effect. We test selective accessibility of format-relevant information as the underlying mechanism in Study 2.

Study 2: Loan Application Formats Affect Elaborations

In Study 2, we sought to replicate our main effect with a different application purpose and probe our hypothesized scale compatibility process. We posit the distinct formats, monthly payment versus loan amount, stimulate reliance on information that shares features with the format used in the loan application process. To better understand the factors that individuals consider when determining the amounts they provide, we collected open-ended responses from participants, which participants then self-coded to identify which option best described their previous responses. Additionally, we sought to determine whether the effect of loan application formats on principal requests depends on the presence of other personal loan parameters, specifically interest rate and term, prior to consumers generating a request amount. Thus, we

manipulated the presence versus absence of the personal loan description used in Study 1. Lastly, due to the nature of the loan application formats and the information provided, it is possible that participants could experience greater difficulty determining a monthly payment (vs. loan amount), especially when personal loan information is absent. To rule this out as an alternative explanation for our results, we measure task complexity in Study 2.

Method

Three hundred and one CloudResearch approved MTurk participants participated in this 2 (Personal loan description: present vs. absent) x 2 (Application format: MP vs. LA) between-subjects study for monetary compensation. Participants imagined that they wanted to buy a new high-end washer and dryer set that cost \$5,150 (expenditure cost, image, and description displayed), and needed a personal loan to buy the set. Participants were randomly assigned to review the same personal loan description used in Study 1, and to provide either a MP or LA. Next participants responded to consumer loan application questions as if they were applying in-person for a loan from a financial institution. Participants proceeded as outlined in Study 1.

Participants responded to a question probing their elaborations. Specifically, participants in the MP (LA) condition read, “How did you determine the preferred monthly payment (loan amount) you initially provided? What information did you consider when coming up with [piped-in dollar amount]? Please describe in detail the information you considered and/or calculations you performed.” Then participants indicated the information they considered when determining their response amount by selecting from the following options: (1) “I thought of an amount I knew I could afford,” (2) “I thought of other monthly payments I have and adjusted from those,” (3) “I thought of the purchase price of the washer dryer set,” (4) I calculated an

amount in my head,” (5) “I guessed,” or (6) “Other” (next to which participants specified their own reason).

Participants also responded to three items asking how difficult, complex, and complicated it was determining an amount to request when completing the loan application (1 = not at all, 7 = very), which we averaged into our task complexity measure ($\alpha = .96$). Then participants completed an attention check where they selected the purpose for their loan application. We followed the same data cleaning process outlined in Study 1; four participants failed the attention check, one response was identified as an influential value ($MP = \$55,000$), and five additional responses were identified as outliers and thus removed, leaving 291 participants in our analysis (127 women, $M_{age} = 38$, modal education = bachelor’s degree).

Results and Discussion

Principal Requests. We replicated our results from Study 1. A regression with principal request as the dependent variable, and income, loan description, loan application format and the loan description x loan application format interaction as predictors revealed that loan application format had a significant effect on principal requests. Consistent with our hypothesis, participants in the monthly payment condition requested significantly larger principal requests ($M_{MP} = \$6,801$, $SD = \$4,568$) than participants in the LA condition ($M_{LA} = \$4,800$, $SD = \$4,567$; $t(286) = 3.65$, $p < .001$, $d = .44$). The effect of income was significant ($b = \$289$, $t(286) = 2.71$, $p = .007$), and all other effects were non-significant ($ps > .38$).

Loan Decisions. A logistic regression with loan decision as the dependent variable indicated significant effects of loan description (Absent: 42.8% vs. Present: 54.8%, $\chi^2(1) = 3.88$, $p = .049$) and income ($p = .049$) on likelihood to accept the loan if approved. Loan application

format, and the loan application format x loan description interaction, were non-significant predictors ($ps > .10$). Participants were similarly likely to accept the loan regardless of the loan application format condition (MP: 44.0% vs. LA: 53.3%, $\chi^2(1) = 2.5$, $p = .109$). An analysis of loan originations between the two conditions revealed aggregate loan totals in the MP condition were larger than in the LA condition (MP = \$399,344 vs. LA = \$361,500).

Furthermore, restricting the analysis of principal requests to those who proceeded with the loan replicated the effect of loan application format ($M_{MP} = \$6,240$, $SD = \$5,361$ $M_{LA} = \$4,540$, $SD = \$5,316$; $t(137) = 1.88$, $p = .063$, $d = .32$). Thus, not only were aggregate originations greater in the MP (vs. LA) format, the average origination was greater, too.

Elaborations. The pattern of elaborations differed across the loan application formats ($\chi^2(5) = 139.17$, $p < .001$). A majority of participants who were asked to provide a monthly payment indicated a focus on the affordability of the amount (60.3%) while a majority in the loan amount condition indicated a focus on the purchase price (75.3%) when determining their loan application response (see Table 1.1). Participants in the MP condition were more likely to focus on affordability than those in the LA condition (60.3% vs. 9.3%, $z = 9.17$, $p < .001$) while those in the LA condition were more likely to focus on the purchase price than those in the MP condition (75.3% vs. 9.9%, $z = 11.24$, $p < .001$).

Task Complexity. A regression with task complexity as the dependent variable, and income, loan description, loan application format and the loan description x loan application format interaction as predictors revealed that loan application format had a significant effect on task complexity. Participants in the monthly payment condition reported the task of providing a desired monthly payment to be more complex ($M_{MP} = 2.88$, $SD = 1.59$) than participants asked to provide a desired loan amount in the LA condition ($M_{LA} = 2.49$, $SD = 1.59$; $t(286) = 2.09$, $p =$

.038, $d = .25$). Additionally, the loan description x loan application format interaction was significant ($t(286) = 2.20$, $p = .029$). Without the personal loan description, participants reported greater task complexity in the monthly payment ($M_{MP} = 3.16$, $SD = 1.60$) versus loan amount condition ($M_{LA} = 2.36$, $SD = 1.60$; $t(286) = 3.02$, $p = .003$, $d = .50$). With the personal loan description, the difference in task complexity between the loan application format conditions was non-significant ($p = .94$). Additionally, in the monthly payment condition, participants reported greater task complexity when the personal loan introduction was absent ($M_{Absent} = 3.16$, $SD = 1.60$) versus present ($M_{Present} = 2.60$, $SD = 1.64$; $t(286) = 2.08$, $p = .038$, $d = .35$). In the loan amount condition, the difference in task complexity between the personal loan description conditions was non-significant ($p = .32$). The main effect of the personal loan introduction and the effect of income were both non-significant ($ps > .42$).

Although the MP task was seen as more complex than the LA task when the personal loan introduction was not provided, when the introduction was provided the MP task and LA task were seen as similarly complex (which is to say, not very, with means less than 3 on our 7-point scale). The pattern of results for task complexity differed from those for principal requests, and critically, the effect of perceived task complexity on principal requests was non-significant ($p = .37$), indicating task complexity would not mediate the effect of loan application format, which was confirmed in a moderated mediation model (5,000 bootstraps, Hayes 2013). The indirect effect of loan application format through task complexity was non-significant both when the personal loan introduction was provided ($ab = -3$, 90% CI: [-118, 141]) and when it was not provided ($ab = 123$, 90% CI: [-209, 601]). Thus, differences in perceived task complexity did not account for the effect of loan application format.

In addition to replicating our main effect, we find initial evidence of the underlying psychological process consumers undertake when determining the amount to provide in each loan application format. We find that when asked to provide a loan amount, consumers tend to recruit the cost of the purchase. When asked to provide a preferred monthly payment, consumers tend to recruit an amount that they believe is affordable for the expense.

Study 3: Loan Application Format by Cost Level Moderation

In Study 3, we sought to examine our main effect at different cost levels for the loan purpose. We posit that when constructing monthly payments, consumers recruit their monthly budget slack as an anchor, and adjust insufficiently as expenditure cost increases. As a result, we hypothesize that when participants are asked to provide a monthly payment, principal requests will be higher in the MP vs. LA condition when the cost of a purchase is lower (i.e., less than approximately \$8,000 based on our pilot study). Additionally, we predict a reversal when the cost of the purchase is higher (i.e., greater than approximately \$8,000 based on our pilot study). To test our hypothesized reversal, we manipulate the expenditure cost without changing the target product. Lastly, since we found the presence of additional information did not moderate the effect of loan application format on principal requests in Study 2, we include the personal loan description for all participants in Study 3.

Method

Five hundred CloudResearch-approved MTurk participants were recruited for this study for monetary compensation. To ensure the relevance of the loan purpose for study participants,

we aimed to sample only individuals who indicated they had a mortgage or owned their primary place of residence at the time of the study. As a result, we over-recruited participants to ensure our final sample was sufficient. Participants who indicated they neither had a mortgage nor owned their current residence (232) were screened out, thanked, and compensated five cents for their time, leaving 268 participants to be randomized to this 2 (Cost: high vs. low) x 2 (Application format: MP vs. LA) between-subjects design.

Participants imagined that the roof to their house was recently damaged by a storm and needed replacing. In the high cost condition, participants were informed the cost to replace the roof was \$13,150, and in the low cost condition, the cost was \$5,150. Each participant viewed the same image and description of the roof replacement before being informed they needed a personal loan to replace the roof. Participants reviewed the same personal loan description used in Study 2 and provided either a MP or LA. Participants proceeded as outlined in Study 2, reporting their elaborations, rating perceived task complexity ($\alpha = .94$), and responding to the attention check.

We followed the same data cleaning process outlined in Study 1; one participant failed the attention check, three responses were identified as influential values (MP = \$4,000, MP = \$5,500) and five additional responses were identified as outliers and thus removed, leaving 259 participants in our analysis (147 women, $M_{\text{age}} = 42$, modal education = bachelor's degree).

Results and Discussion

Principal Requests. A regression with principal request as the dependent variable, and income, cost, loan application format and the cost x loan application format interaction as predictors revealed that cost had a significant effect on principal requests. Participants in the high

cost condition requested significantly larger principal requests ($M_{High} = \$11,332$, $SD = \$3,369$) than participants in the low cost condition ($M_{Low} = \$6,539$, $SD = \$3,371$; $t(254) = 11.71$, $p < .001$, $d = 1.42$). The main effect of loan application format and the effect of income were non-significant ($ps > .94$). Most importantly, the interaction between cost and loan application format was significant ($t(254) = -7.27$, $p < .001$). Loan application format had a significant simple effect on principal request in the low cost condition, replicating our effect ($b = 2,934$, $t(254) = 5.43$, $p < .001$, $d = .87$). Participants requested significantly higher amounts in the MP ($M = \$8,007$, $SD = \$3,368$) versus LA ($M = \$5,072$, $SD = \$3,369$) condition. However, in the high cost condition, this effect was reversed, as expected ($b = -2,994$, $t(254) = -4.91$, $p = .001$, $d = -.89$). Participants requested significantly higher amounts in the LA ($M = \$12,829$, $SD = \$3,373$) versus MP ($M = \$9,835$, $SD = \$3,371$) condition, supporting H2b.

The simple effects of cost within each loan application format condition also support our theory. Individuals were more sensitive to cost in the LA (vs. MP) condition. The effect of cost was significant in the MP condition ($b = 1,828$, $t(254) = 3.14$, $p = .002$, $d = .54$), but stronger in the LA condition ($b = 7,756$, $t(254) = 12.84$, $p < .001$, $d = 2.30$).

Loan Decisions. A logistic regression with loan decision as the dependent variable indicated a marginally significant effect of the cost x loan application format interaction ($\chi^2(1) = 3.79$, $p = .052$). Loan application format had a significant simple effect on principal request in the low cost condition (MP: 59.4% vs. LA: 76.3%, $\chi^2(1) = 3.99$, $p = .046$), which was non-significant in the high cost condition (MP: 61.4% vs. LA: 54.5%, $\chi^2(1) = .66$, $p = .42$). Thus, in the low cost condition, participants were less likely to proceed with the loan in the MP versus LA condition (as in Study 1), but in the high cost condition, they were similarly likely to proceed with the loan regardless of the loan application format. An analysis of loan originations between

the conditions revealed aggregate loan totals were larger in the MP vs. LA condition in the low cost condition (MP = \$287,761 vs. LA = \$229,025) but not in the high cost condition (MP = \$423,533 vs. LA = \$459,450). The larger principal requests in the low cost condition more than offset any reduced willingness to take the loan. Loan application format and income were non-significant predictors ($ps > .26$).

Furthermore, restricting the analysis of principal requests to those who proceeded with the loan replicated the effect of cost on principal requests ($M_{\text{High}} = \$11,293$, $SD = \$3,198$ $M_{\text{Low}} = \$6,338$, $SD = \$3,195$; $t(157) = 9.62$, $p < .001$, $d = 1.55$) and, more importantly, the interaction between cost and loan application format ($t(157) = 5.01$, $p < .001$). Loan application format had a significant simple effect on principal request in the low cost condition, replicating our effect ($b = 2,432$, $t(157) = 3.42$, $p = .001$, $d = .76$). Participants requested significantly higher amounts in the MP ($M = \$7,554$, $SD = \$3,185$) versus LA condition ($M = \$5,122$, $SD = \$3,191$). In the high cost condition, this effect was reversed, as expected ($b = -2,833$, $t(157) = -3.72$, $p < .001$, $d = -.87$). Participants requested significantly higher amounts in the LA ($M = \$12,709$, $SD = \$3,199$) versus MP condition ($M = \$9,876$, $SD = \$3,189$). Thus, not only were aggregate originations greater in the MP (vs. LA) format, the average origination was greater, too.

Elaborations. The pattern of elaborations differed across the loan application formats ($\chi^2(5) = 131.47$, $p < .001$). A majority of participants who were asked to provide a monthly payment indicated a focus on the affordability of the amount (61.9%) while a majority in the loan amount condition indicated a focus on the purchase price (77.6%) when determining their loan application response (see Table 1.1). Participants in the MP condition were more likely to focus on affordability than those in the LA condition (61.9% vs. 9.6%, $z = 8.73$, $p < .001$) while

those in the LA condition were more likely to focus on the purchase price than those in the MP condition (77.6% vs. 10.4%, $z = 10.91$, $p < .001$).

Task Complexity. A regression with task complexity as the dependent variable, and income, cost, loan application format and the cost x loan application format interaction as predictors revealed that loan application format had a significant effect on task complexity. Participants in the monthly payment condition reported the task to be more complex ($M_{MP} = 3.02$, $SD = 1.49$) than participants in the LA condition ($M_{LA} = 2.41$, $SD = 1.50$; $t(254) = 3.32$, $p = .001$, $d = .41$). The effect of income was marginally significant ($b = -.10$; $t(254) = 1.73$, $p = .085$). The cost x loan application format interaction was non-significant ($p = .20$), as was the main effect of cost ($p = .60$). In addition to the non-significant interaction, the effect of perceived task complexity on principal requests was non-significant ($p = .87$), indicating task complexity would not mediate the effect of loan application format, which was confirmed in a moderated mediation model (5,000 bootstraps, Hayes 2013). The indirect effect of loan application format through task complexity was non-significant both in the low cost ($ab = 20$, 90% CI: [-200, 224]) and high cost condition ($ab = 9$, 90% CI: [-89, 133]). Thus, differences in perceived task complexity did not account for the effect of loan application format. In conjunction with the results regarding task complexity in Study 2, task complexity evidently fails as an alternate explanation for our pattern of results.

Study 3 provides moderation evidence of the hypothesized selective accessibility process. Specifically, the results indicate consumers request amounts that assimilate the cost of an expenditure when asked to provide a loan amount during the application process yet depart from cost when asked to provide a monthly payment, in line with selective accessibility of cost across the formats.

Study 4: Budget Slack as an Anchor

In the previous study, we found that consumers in the monthly payment condition generally try to come up with an amount they deem affordable. In Study 4, we sought to more closely examine how consumers generate the MPs they request. We hypothesize that when constructing monthly payments, this affordable amount is based on their recruiting and anchoring on their monthly budget slack, which serves as an upper boundary. To test our hypothesized budget slack anchoring effect, we manipulate upwards the amount of budget slack individuals have available to consider when forming their requests, and compare MPs relative to a control condition where slack is not manipulated. Because manipulating slack in this way could possibly increase the salience of one's budget slack, we also include a salient budget slack condition where we do not manipulate the amount of slack but the salience of slack. This allows us to estimate any influence of potentially increased slack salience in driving our hypothesized effect (the control vs. salient contrast) and provide an estimate of the effect of higher slack either against the regular control condition or against the salient slack condition. Additionally, in this study we measure participants' level of involvement with the task to ensure it was taken seriously by the participants.

Method

Four hundred and fifty-four CloudResearch-approved MTurk participants were recruited for this 3-cell (Budget slack: control, high, salient) between-subjects study for monetary compensation. Participants first imagined that they needed to finance their backyard wedding ceremony and reception and were informed it cost \$13,150. Next, participants read the same

personal loan descriptions used in Studies 2 and 3. Then, prior to responding with their desired MP, participants were randomly assigned to one of three budget slack conditions: control, high, or salient. In the control condition, participants simply read the scenario and then proceeded to providing their desired MP. In the high budget slack condition, participants imagined their budget slack was \$1,250 per month, prior to providing their desired MP. In the salient budget slack condition, participants were asked to report their monthly budget slack, prior to providing their desired MP.

All participants provided a MP and proceeded with the loan application as in previous studies. As a check for the salience manipulation, all participants then indicated to what extent they agreed or disagreed that they thought about their monthly budget slack when determining the MP for their loan request (1 = Strongly disagree, 7 = Strongly agree). Because they had been told their slack earlier, participants in the high slack condition responded to our check for the slack manipulation, reporting their subjective perceptions of slack (“My monthly budget slack feels like...” 1 = Very little, 7 = A lot), followed by the attention check, and then reported their actual slack in their real life and their subjective perceptions of their actual slack. Because they had provided their actual slack earlier, participants in the salient slack condition reported their subjective perceptions of their actual slack, followed by the attention check. Participants in the control condition responded to the attention check and then reported their actual slack in their real life and their subjective perceptions of their actual slack.

Prior to completing demographic questions, all participants responded to three items from prior research to measure their level of involvement in the study (e.g., “I took the task of determining an amount for the application seriously,” 1 = Strongly disagree, 7 = Strongly agree), which we averaged into our involvement measure ($\alpha = .87$; Pham and Avent 2004).

We followed a similar data cleaning process as outlined in Study 1, but instead of determining influential and outlier values based on MP and LA values (this study did not have a LA condition), we did so based on MP and actual monthly budget slack; twenty-four participants failed the attention check, eight responses were identified as influential values (e.g., MP = \$13,000, monthly slack = \$39,000) and twenty-one additional responses were identified as outliers and thus removed, leaving 401 participants in our analysis (190 women, $M_{\text{age}} = 40$, modal education = bachelor's degree).

Results and Discussion

Manipulation Checks. For subjective budget slack, there was a main effect of condition ($F(2, 397) = 70.82, p < .001$), controlling for income ($p = .012$). Participants perceived their budget slack amount to be higher in the high (vs. control) condition ($M_{\text{High}} = 4.93, SD = 1.53$ vs. $M_{\text{Control}} = 3.17, SD = 1.53$; $M_{\text{Diff}} = 1.76$; $t(397) = 9.31, p < .001, d = 1.15$), as well as high (vs. salient) condition ($M_{\text{High}} = 4.93, SD = 1.53$ vs. $M_{\text{Salient}} = 2.84, SD = 1.53$; $M_{\text{Diff}} = 2.10$; $t(397) = 11.28, p < .001, d = 1.37$). Participants perceived their budget slack to be slightly higher in the control (vs. salient) condition ($M_{\text{Diff}} = .33$; $t(397) = 1.76, p = .08$).

For budget slack salience, there was a significant main effect of condition ($F(2, 397) = 6.74, p = .001$), controlling for income ($p = .82$). Budget slack was indeed more salient in the high (vs. control) condition ($M_{\text{High}} = 5.76, SD = 1.39$ vs. $M_{\text{Control}} = 5.22, SD = 1.39$; $M_{\text{Diff}} = .54$; $t(397) = 3.14, p = .002, d = .39$). Budget slack salience was successfully manipulated to be higher in the salient (vs. control) condition ($M_{\text{Salient}} = 5.76, SD = 1.39$ vs. $M_{\text{Control}} = 5.22, SD = 1.39$; $M_{\text{Diff}} = .54$; $t(397) = 3.16, p = .002, d = .39$), and did not differ between the high and salient conditions

($M_{\text{Diff}} = .00$; $t(397) = .00$, $p = .997$, $d = .00$). Thus, our manipulations of both budget slack salience and budget slack amount were successful.

Involvement. Participants reported being highly involved ($M_{\text{High}} = 6.37$, $SD = .80$; $M_{\text{Salient}} = 6.52$, $SD = .80$; $M_{\text{Control}} = 6.42$, $SD = .81$), as well as being similarly involved across all three conditions ($F(2, 397) = 1.12$, $p = .33$). Thus, differences in involvement across conditions cannot account for differences in MP requests.

MP Requests. A regression with monthly payment as the dependent variable, and income and condition as predictors revealed that condition had a significant effect on monthly payment requests. Participants in the high budget slack condition requested significantly larger monthly payments ($M_{\text{High}} = \$691$, $SD = \$268$) than participants in the control condition ($M_{\text{Control}} = \$285$, $SD = \$268$; $t(397) = 10.47$, $p < .001$, $d = 1.51$). As mentioned earlier, we recognized that it was possible for our budget slack amount manipulation to also increase budget slack salience (which was confirmed in our manipulation check), which is why we included the salient condition; participants in the high budget slack condition also requested significantly larger monthly payments than those in the salient condition, and the effect was even larger ($M_{\text{Salient}} = \$251$, $SD = \$268$; $t(397) = 11.11$, $p < .001$, $d = 1.64$). Reinforcing this result, participants in the salient budget slack condition requested significantly lower monthly payments ($M_{\text{Salient}} = \$251$, $SD = \$268$) than participants in the control condition ($M_{\text{Control}} = \$285$, $SD = \$268$; $t(397) = -1.77$, $p = .077$, $d = .213$). Thus, budget slack salience cannot account for the *increase* in monthly payments in the high budget slack condition (vs. the other conditions); rather, budget slack amount was the important factor, as hypothesized. The effect of income was also significant ($b = 21.96$; $t(397) = 2.44$, $p = .015$).

Budget Slack Anchoring. We hypothesized that budget slack would be used as an anchor for generating MPs. This implies we should see two key results: first, budget slack should act as an upper boundary to MP requests, and second, budget slack should correlate with MP requests. To address the first criterion, we compared individuals' MP requests to their budget slack. The budget slack in the high slack condition was \$1,250 by definition, and the non-manipulated slack was approximately \$550 ($M_{Control} = \608, $SD = \$650$; $M_{Salient} = \$493$, $SD = \$458$). While the pattern of slack vs. MP differences varied across conditions ($\chi^2(2) = 36.91$, $p < .001$, see Table 1.2), well above the majority in each condition provided MP requests that were less than or equal to their budget slack amount (high slack: 98.4%, salient slack: 89.9%, control: 73.9%), consistent with our theory. For the second criterion, a correlational analysis revealed significant correlations between budget slack and MPs in the salient ($r = .501$, $p < .001$) and control ($r = .178$, $p = .040$) conditions. These results complement the effect we saw by increasing slack in the high slack condition (vs. control or salient conditions) and further indicate the importance of slack in how consumers generate MP requests.

In this study, we observe that when constructing monthly payments, consumers recruit and anchor on their monthly budget slack. Moreover, monthly budget slack served as an upper boundary.

Study 5: Life Simulation

In the previous study, we demonstrated that consumers recruit and anchor on their monthly budget slack when generating their monthly payments. In Study 5, we sought to enhance the external validity of our findings by incentivizing participants to respond to loan application formats as they normally would in real life. To do so, we designed a financial life

simulation where participants made three practice and eight simulation purchase decisions, and then completed a similar low cost personal loan decision as in previous studies. For each purchase decision, participants had to choose between a higher cost, higher quality of life purchase, and a lower cost, lower quality of life purchase. Participants were incentivized to accumulate quality of life points, increase their savings, and avoid overdrafting their account. We hypothesized that participants would request larger principal amounts in the monthly payment versus loan application format, replicating our effect. This study was preregistered at <https://aspredicted.org/blind.php?x=xv66nu>.

Method

One hundred and ten CloudResearch-approved MTurk participants were recruited for this 2 condition (Application Format: MP vs. LA) between-subjects study for monetary compensation. Participants first read about the financial life simulation:

In this simulation, you are a full-time employed, single adult, and you live in your own apartment. You are responsible for paying all of your own bills. As in real life, you will make financial decisions and life choices each week as you deal with expected and unexpected events. For instance, you will have to choose between dining in versus eating out, and outfitting your workspace with a proper desk versus a table. Lastly, you will face a major expenditure for which you will need to take out a personal loan. Many of these decisions will require making trade-offs between higher quality of life and higher spending, and lower quality of life and lower spending.

Next, participants were informed their goal was to accumulate Quality of Life (QOL) points, avoid overdrafting their account, and accumulate savings, and that they would earn a bonus

ranging between \$0 and \$1; the higher their QOL points and the higher their savings balance, the higher their bonus. However, five cents would be deducted from their incentive each time their account was overdrawn. Then participants reviewed information about their monthly budget. Specifically, their income was \$2,600, their monthly expenses, which vary month to month, average \$2,100, and their monthly slack averages \$500.

As practice, participants then completed three financial decisions. For example, “Your friends just invited you to go out for dinner with them at a new restaurant in town. You ate at home every other night this week. Which of the following two options would you pick?” (Eat out with friends, cost = \$47, QOL = 65 or eat at home alone, cost = \$9, QOL = 37). Participants then reviewed a summary of their finances including their income, expenses, total cost of three choices, ending balance, and QOL points earned. Then participants were informed they would be making two months’ worth of choices, four choices for month one, four choices for month two. Participants were reminded these choices would count towards their ending savings balance and QOL points, and that they would be used to simulate their finances three years into the future. At the end of each month, participants reviewed a summary of their finances containing the same information as in the practice round.

Then, participants imagined that they needed to finance a vacation that cost \$4,150. Participants were randomly assigned to the MP or LA condition. Then participants proceeded as in previous studies. Thirteen participants failed the attention check, eight responses were identified as influential values, and two additional responses were identified as outliers and thus removed, leaving 87 participants in our analysis (38 women, $M_{\text{age}} = 40$, modal education = bachelor’s degree).

Results and Discussion

Principal Requests. A regression with principal request as the dependent variable, and income and loan application format as predictors revealed that loan application format had a significant effect on principal requests. Participants in the MP condition requested significantly larger principal requests ($M_{MP} = \$5,512$, $SD = \$1,694$) than participants in the LA condition ($M_{LA} = \$4,220$, $SD = \$1,694$; $t(84) = 3.40$, $p = .001$, $d = .76$). The effect of income was non-significant ($p = .82$).

Loan Decisions. A logistic regression with loan decision as the dependent variable indicated a non-significant effect of loan application format ($\chi^2(1) = .07$, $p = .80$). Thus, participants were similarly likely to proceed with the loan in the MP (45.8%) versus LA (54.2%) condition. An analysis of loan originations between the conditions revealed aggregate loan totals were larger in the MP versus LA condition (MP = \$138,243 vs. LA = \$107,150). Income was a non-significant predictor ($p = .91$).

Furthermore, restricting the analysis of principal requests to those who proceeded with the loan replicated the effect of loan application format on principal requests ($M_{MP} = \$6,282$, $SD = \$1,518$ $M_{LA} = \$4,123$, $SD = \$1,518$; $t(45) = 4.49$, $p < .001$, $d = 1.42$). Thus, not only were aggregate originations greater in the MP (vs. LA) format, but so too was the average origination.

General Discussion

Across five studies we demonstrate the effect of loan application formats (monthly payment vs. loan amount) on consumer loan requests. In Study 1, we found that the use of monthly payment (vs. loan amount) elicitation during the consumer loan application process

results in consumers requesting larger principal amounts for lower cost expenditures. In Study 2, we found that the two loan application formats prompt consumers to consider amounts that are representative of the format. Specifically, when consumers are asked to provide a loan amount, consumers access the cost of their purchase, whereas when consumers are asked to provide a desired monthly payment, they access their monthly budget slack to identify an affordable amount. In Study 3, we studied the moderating role of expenditure cost - the MP (vs. LA) format led to higher principal requests for lower cost purchases but lower principal request for higher cost purchases, and in Study 4 we causally probed the influence of budget slack in the MP format. We find that cost is a stronger predictor of requested loan amounts than of requested monthly payments. Finally, Study 5 used a pre-registered and incentivized life simulation to demonstrate the effect. Figure 1.3 depicts an overview of these results.

Online applications primarily require consumers to provide a loan amount, yet online calculators often elicit monthly payments. Additionally, in interviews with eight current loan officers and during four years of professional experience in the financial services industry, the first author observed that verbal in-person applications may lead with either the loan amount or monthly payment. Our findings contribute to understanding consumer financial decision making by identifying loan application format as an important factor that affects consumer borrowing and delineating when loan application format may be expected to have effects.

This research builds on prior preference construction literature and replicates the role of response mode in preference construction in a new context. Across expenditure costs that ranged from \$1,150 to \$20,150, the monthly payment versus loan amount format (response mode) resulted in consumers requesting principal amounts that exceeded the cost of an expenditure for lower cost purchases, and that were less than required for higher cost purchases. Moreover, the

effect of loan application format on principal requests not only violates procedural invariance, because the elicitation formats result in differing principal request amounts, but also influences consumers' willingness to accept loans. In some loan situations, such as applying for funds online, consumers submit their requests without discussing possible alternative financing amounts with a financial representative. We find that consumers are generally accepting of loans when their monthly payment request is met, even if it results in overborrowing. Overall, our findings add to the literature suggesting that preferences are constructed in the moment and depending on elicitation methods, such as loan application format.

We also contribute to research on selective accessibility by studying consumers' *generation* of requests during consumer financing decisions. The selective accessibility literature suggests that in the absence of externally-provided values, consumers recruit task-relevant information to construct numeric responses (Chapman and Johnson 1994; Mussweiler and Strack 1999). However, selective accessibility is primarily observed using variation in externally provided numeric values, with the exception of Chaxel (2014), in which the selective accessibility process is *primed*. Thus, previous research lacks evidence that a selective accessibility mechanism is used *spontaneously* when external values are not provided. Our results fill this gap and provide evidence of consumers using a selective accessibility mechanism during the consumer loan application process. Specifically, we observe self-reported elaborations and process-relevant moderation results that suggest consumers do spontaneously leverage format-relevant information when self-generating loan requests.

Lastly, in studying selective accessibility as the critical process by which consumers generate their loan requests, we are able to identify the information consumers recruit under each format. In the loan amount format, consumers think primarily about expenditure cost, while in

the monthly payment format, consumers think primarily about a value that they could perceive to be affordable, which is based on their monthly budget slack. By understanding the role of consumers' budget slack in the loan application process, financial professionals can be better equipped to not only understand consumer loan request heuristics, but also prepare marketing materials that are more in line with their target market's financing preferences. For instance, financial institutions can identify the average budget slack of their desired target market and prepare and communicate financing offers in-line with these parameters.

Implications for Consumers and Financial Institutions

Many consumer financial decisions hinge on consumers requesting funds from federally regulated institutions to finance purchases. In order to apply for funds from such institutions, consumers must complete a loan application. We demonstrate that different loan application formats lead to varying principal requests for the same loan type and purpose. When asked to provide a monthly payment (vs. loan amount), consumers are inclined to over-borrow for lower cost purchases but under-borrow for higher cost purchases. We demonstrate that such behavior is due to the selective recruitment of budget slack vs. expenditure cost and the miscalibration between the two (see Figures 1.1 and 1.2).

While Argyle et al. (2020) find that monthly payments are restricted to \$300-\$500 for automobile loans, we find that desired monthly payments for personal loans are restricted to about \$100-\$500 for personal loans. This range persists regardless of income. Although consumers appear to be doing their best by using what they perceive to be format-relevant information, doing so with a monthly payment loan application format can lead to principal

amounts in excess of what is needed to finance the purchase. Thus, consumers appear to make irrational use of even relevant information in their borrowing decisions.

While we find that a loan amount (vs. monthly payment) format yields principal requests more in line with expected costs, the consumer welfare conclusions of our findings are complex. A loan amount format might reduce over-borrowing for lower cost purchases, but with given loan parameters, it leads to required monthly payments that are higher than those that are self-generated by consumers for higher cost purchases. How consumers react to this by adjusting loan parameters is important for analyzing the welfare implications of application formats. Our results show that consumers demonstrate a substantial willingness to accept debt in excess of what is actually required for a purchase as long as the preferred monthly payment parameter is met.

When asked to decide whether they would like to proceed with the loan, the majority of consumers in our studies decided to proceed regardless of the format used, resulting in aggregate loan originations that were significantly larger when the application asked for monthly payments compared to loan amounts; we summarize this result across our studies in Table 1.3. Many institutions run specials where they pre-approve consumers for loans based on a certain term and amount. Financial institutions and public policy officials may want to consider the consumer welfare effects of such promotions given consumers' propensities to borrow amounts that depart from what is required. Our scenarios involve merely requesting a loan amount or desired monthly payment, which is a simple change that can be made to online or paper loan applications. The use of different formats can extend to in-person loan applications where financial professionals may lead with either loan amount or monthly payment when interacting with consumers. As a result, financial managers may want to consider the purposeful use of application formats. For instance, financial professionals could request additional information

from consumers before discussing loan amounts or monthly payments. By learning about the type of purchase, financial professionals could proactively lead with loan amount or monthly payment pursuant to the relative cost level. One could leverage the application format to originate larger loans for clients able to service the loan or use this subtle nudge to originate more manageable loans for at-risk clients. Other financial tools, such as online calculators, also lack consistency regarding which formats are used. These tools may be modified to help consumers borrow only those funds needed to complete their purchase.

Limitations and Future Directions

Our investigation is not without limitations. Although the experimental designs and loan purposes of each study were meant to reflect the real-world environment of consumer borrowing (i.e., providing some basic information such as the loan purpose up front, and studying common expenditures financed by personal loans such as a wedding, vacation, home remodel, or major purchase), in order to isolate the effect of the two specific loan application formats, we held term and rate constant. Our effect will vary across different potential combinations of terms and interest rates offered by financial institutions (see Figure 1.2). In future research, these loan parameters could be varied to change how this effect emerges across different cost levels. Even more compellingly, these loan parameters could be endogenized in future research; since these parameters can be modified according to consumers' preferences and financial situations (e.g., interest rate is also a function of creditworthiness), this suggests that the effect of loan application format may be heterogeneous across different consumer segments if more of the financing information is allowed to vary. Additionally, we focused on situations where consumers already decided which purchase they were going to finance. Future research might

consider the pre-approval phase where consumers do not yet have a specific purchase in mind. It is unclear what role different application formats would play in these situations.

Our focus in this research was on principal requests and willingness to accept the loan as-is, but future research could study how consumers modify loan parameters in response to objectionable financing information. Lastly, the majority of consumers were willing to proceed with their loan even though for some, the principal amount would not cover the cost of their purchase. It may be fruitful to explore consumers' financial decision making when they initially borrow less than they need to cover the cost of their acquisition.

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Table 1.1

Participant Elaborations, Studies 2-3								
Elaboration	Study 2				Study 3			
	Monthly Payment		Loan Amount		Monthly Payment		Loan Amount	
	N	%	N	%	N	%	N	%
Purchase price	14	9.9	113	75.3	14	10.4	97	77.6
Affordability of amount	85	60.3	14	9.3	83	61.9	12	9.6
Calculated amount	7	5.0	7	4.7	10	7.5	2	1.6
Other expenses	28	19.9	8	5.3	19	14.2	5	4.0
Guessed	4	2.8	5	3.3	6	4.5	3	2.4
Other	3	2.1	3	2.0	2	1.5	6	4.8
Total	141		150		134		125	

Table 1.2

Slack – MP Difference, Study 4						
Comparison	Control		Salient		High Slack	
	N	%	N	%	N	%
Slack < MP	35	26.1	14	10.1	2	1.6
Slack = MP	11	8.2	37	26.6	21	16.4
Slack > MP	88	65.7	88	63.3	105	82.0
Total	134		139		128	

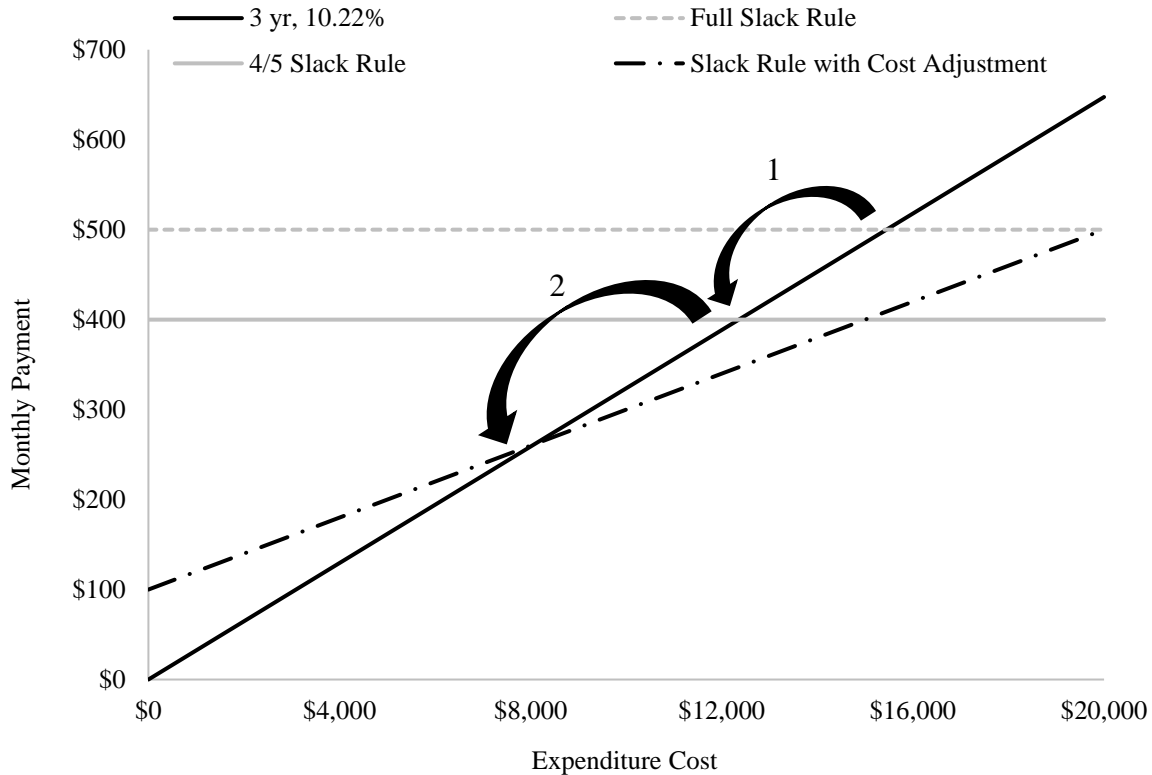
Table 1.3

Accepted Loans in Studies 1-3 and Study 5								
Study	Cost Level	Monthly Payment			Loan Amount			Aggregate Difference (\$)
		N	Aggregate (\$)	Mean (\$)	N	Aggregate (\$)	Mean (\$)	
1	Lower	29	171,680	5,920	51	162,027	3,177	9,653
2	Lower	62	386,880	6,240	80	363,200	4,540	23,680
3	Lower	38	287,052	7,554	45	229,005	5,089	58,047
	Higher	43	424,668	9,876	36	459,468	12,763	-34,800
5	Lower	22	138,248	6,284	26	107,150	4,121	31,098
Total		194	1,408,528	7,260	238	1,320,850	5,550	87,678

Note: S4 is excluded because it has no Loan Amount condition.

Figure 1.1

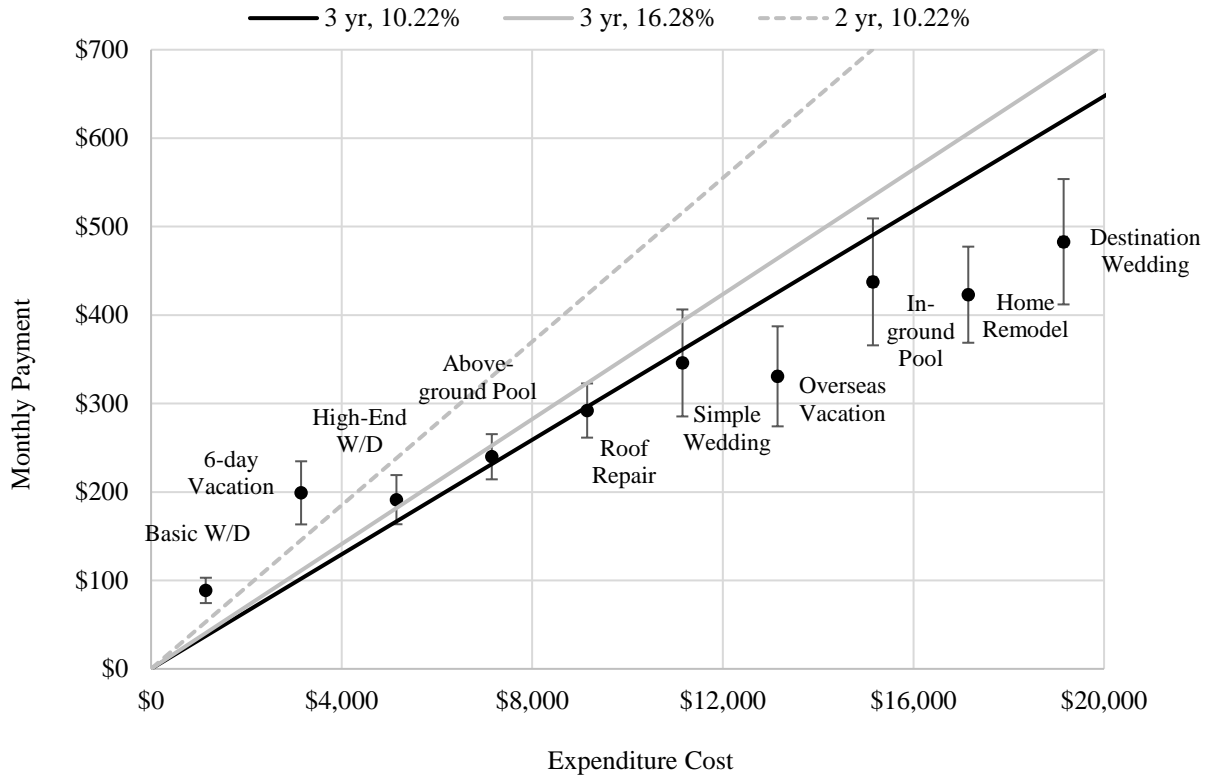
Hypothetical Slack-Based Monthly Payment Generation Rules



Note: The solid black reference line indicates the actual monthly payments that would accompany loans of each expenditure cost. The other lines illustrate how calibration would change using different slack-based monthly payment generation rules. Arrow 1 shows the switching point is lower under a partial-slack rule than a full-slack rule. Arrow 2 shows the switching point is lower under a slack-based rule that adjusts for expenditure cost. These are for illustrative purposes only.

Figure 1.2

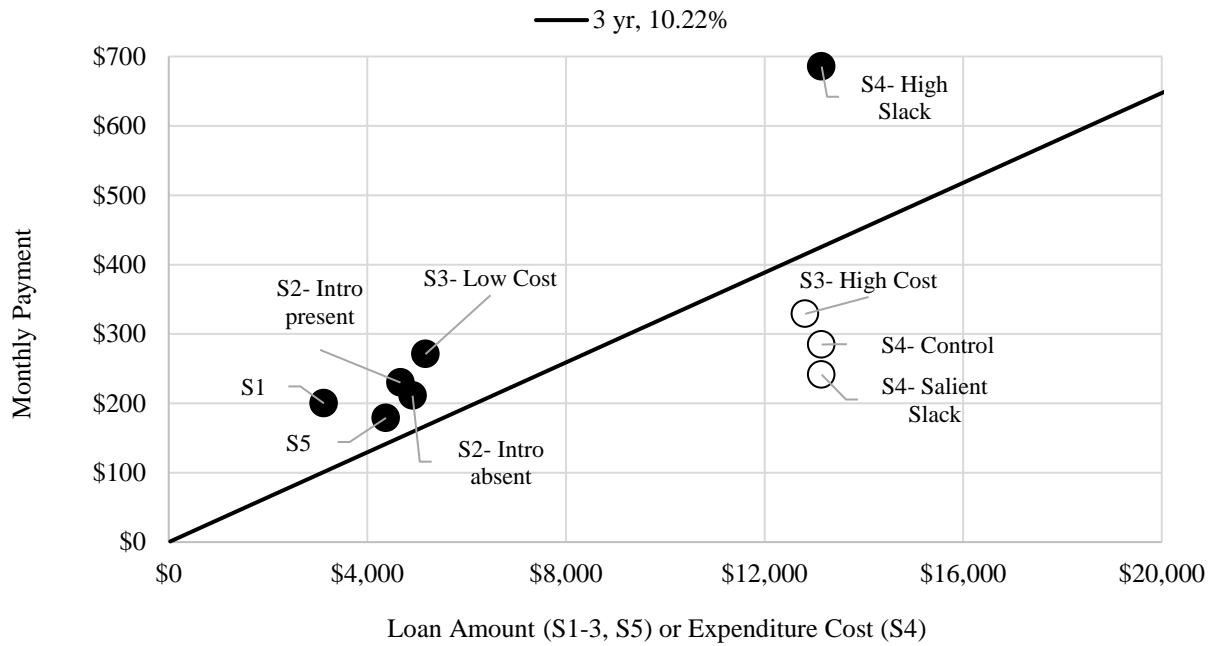
Perceived Monthly Payments by Expenditure Costs, Pilot Study



Note: Error bars are ± 2 standard errors. The black reference line indicates the actual monthly payments that would accompany loans of each expenditure cost. The gray reference lines illustrate how proper calibration would change when using either a shorter term or an interest rate on the order of a credit card's rate; monthly payments are not calibrated to these either.

Figure 1.3










Overview of Studies



Note: The black reference line indicates the actual monthly payments that would accompany loans of each principal value. The black dots are above the reference line and correspond to MP>LA loan application format effects, whereas the white dots are below the reference line and correspond to MP<LA loan application format effects. Strictly speaking, the dots from Study 4 are implied format effects comparing MP requests to the given expenditure cost as there was no loan amount condition in that study.

Appendix 1.1 Scenarios and Stimuli

Pilot

<p>Basic Washer / Dryer set</p> <p>Cost Estimate: \$1,150</p>  <p>Top-Load Washer & Electric Dryer Set in White</p>	<p>6 Day Nature Inspired Solo Vacation</p> <p>Cost Estimate: \$3,150</p>  <p>6 Days and 5 Nights in a National Park Cabin, National Park Pass, 2 National Park Guided Tours, Car Rental, and 1 Round Trip Flight</p>	<p>High-end Washer / Dryer set</p> <p>Cost Estimate: \$5,150</p>  <p>Side-by-Side on SideKick Pedastals High-End Washer & Dryer Set in Black Stainless Steel</p>	<p>Above-ground Pool</p> <p>Cost Estimate: \$7,150</p>  <p>Above-Ground Pool Purchase and Installation, and Small Wood Deck Installation</p>
<p>Home Repair</p> <p>Cost Estimate: \$9,150</p>  <p>Architectural Shingle Roof Replacement 2,500 Square Foot House in Mid-West Including Labor and Materials</p>	<p>Backyard Wedding Ceremony and Reception</p> <p>Cost Estimate: \$11,150</p>  <p>50 Guests, Wedding Planner, Bridal Dress, Professional Photographer, Local Band, Potluck Style Dinner, Tent & Chair Rental</p>	<p>2 Week Overseas Couples Vacation</p> <p>Cost Estimate: \$13,150</p>  <p>All Inclusive Romantic Couples Retreat including: 14 Days and 13 Nights in a Luxurious Hotel, 2 Guided Tours, Car Rental, and Flights (1 Round Trip + 2 Within Destination per Person)</p>	<p>In-ground Pool</p> <p>Cost Estimate: \$15,150</p>  <p>In-Ground Pool Purchase & Installation (excluding patio)</p>
<p>Home Remodel</p> <p>Cost Estimate: \$17,150</p>  <p>3-Season, Fully-Enclosed, 15x15 Patio Enclosure Addition Including Labor and Materials</p>	<p>Destination Wedding Ceremony and Reception</p> <p>Cost Estimate: \$19,150</p>  <p>75 Guests, Wedding Planner, Elegant Bridal Dress, Professional Photographer Team, Music Vendor, Catered Dinner</p>		

Appendix 1.1 (Cont.)

S1: The Effect of Loan Application Formats on Principal Requests

Please imagine the following: You would like to take a vacation. After considering your options you decide to go on the vacation described on the following screen.

6 Day Nature Inspired Solo Vacation

Cost Estimate: \$3,150



6 Days and 5 Nights in a National Park Cabin, National Park Pass,
2 National Park Guided Tours, Car Rental, and
1 Round Trip Flight

Personal Loan Description

You do not currently have enough money to pay for the backyard wedding ceremony and reception. As a result, you decide to apply for a **personal loan**.

Note: This loan will be in your name only, and thus **will not** be held jointly with your fiancé.

A personal loan is a type of installment loan where you borrow money from a bank, credit union, or online lender and pay it back in fixed monthly payments, or installments across a set period of time. Personal loan amounts range from a few hundred to several thousands of dollars, and you can usually use the money for any reason without much, if any, follow-up from the lender.

Interest rates and repayment periods can vary widely, and currently average 10.22% APR and thirty-six months (three years). Most personal loans are “unsecured”, meaning they are not backed by collateral, and are thus often referred to as signature loans.

Appendix 1.1 (Cont.)

S1: The Effect of Loan Application Formats on Principal Requests

Loan Application

Please complete each of the following loan application questions as if you were **applying right now** for a personal loan from a bank to finance the previously described backyard wedding ceremony and reception.

Thank you for the previous information. The next step is to discuss and confirm financing terms before submitting your application for review.

Based on your credit score and the loan type:

- the interest rate is 10.22% and
- the bank can offer a term of 36 months

Calculating your financial summary, one moment please.

MP Loan Summary

Please review the below **loan summary**. The summary is based on the monthly payment you previously provided.

Loan Information:

1) Monthly Payment:

2) Annual percentage rate of interest:

3) Repayment period in months:

Financing Information:

4) Your loan amount will be:

5) Your total payment will be:

6) Your total interest payments will be:

LA Loan Summary

Please review the below **loan summary**. The summary is based on the loan amount you previously provided.

Loan Information:

1) Amount of the loan:

2) Annual percentage rate of interest:

3) Repayment period in months:

Financing Information:

4) Your monthly payment will be:

5) Your total payment will be:

6) Your total interest payments will be:

Appendix 1.1 (Cont.)

S2: Loan Application Formats Affect Elaborations

Please imagine the following: Your washer and dryer are fairly old and you'd like a new set. After considering your options you decide to purchase the set described on the following screen.

High-End Washer and Dryer Set

Cost Estimate: \$5,150



Side-by-Side on SideKick Pedastals
High-End Washer & Dryer Set in Black Stainless Steel

S3: Loan Application Format by Cost Level Moderation

Please imagine the following: Your roof was recently damaged by a storm and needs to be replaced. After considering your options you decide to go with the roof replacement described on the following screen.

Roof Replacement

Cost Estimate: \$5,150



Architectural Shingle Roof Replacement
2,500 Square Foot House
Including Labor and Materials

Roof Replacement

Cost Estimate: \$13,150



Architectural Shingle Roof Replacement
2,500 Square Foot House
Including Labor and Materials

Appendix 1.1 (Cont.)

S4: Budget Slack as an Anchor

Imagine the following: You recently got engaged and your fiancé would like a backyard wedding ceremony and reception. After considering your options, you and your fiancé decide on the backyard wedding ceremony and reception described on the following screen.

Backyard Wedding Ceremony and Reception

Cost Estimate: \$13,150



50 Guests, Wedding Planner, Bridal Dress,
Professional Photographer, Local Band,
Potluck Style Dinner, Tent & Chair Rental

High Slack Manipulation

Additionally, imagine you recently paid off a major expense and now have approximately **\$1,250 available each month** after all of your other expenses are paid.

In other words, your **monthly budget slack totals \$1,250**.

This is your own monthly budget slack, and not total family or household budget slack.

Salient Slack Manipulation

Now, please take a moment to think about how much money you have left over each month after all of your other expenses are paid (your monthly budget slack).

This is your own monthly budget slack, and not total family or household budget slack.

What do you estimate your **monthly budget slack** to be (\$)?

Control Slack Actual

For this next question, please think about how much money you have left over each month after all of your other expenses are paid (your monthly budget slack). This is your own monthly budget slack, and not total family or household budget slack.

High Slack Actual

For this next question, please think about how much money you have left over each month after all of your other expenses are paid (your monthly budget slack) in **your actual life** and not as it pertains to the imagined scenario. This is your own monthly budget slack, and not total family or household budget slack.

Appendix 1.1 (Cont.)

S5: LIFE SIMULATION – QOL PRETEST

Thank you for taking this study. In this study, we are interested in learning about how consumers evaluate the quality of life associated with various consumption decisions.

Quality of life “is the degree to which an individual is healthy, comfortable, and able to participate in or enjoy life events” (Encyclopedia Britannica).

On the following screens, you will see various consumption decisions consumers make in their daily lives. The options for each decision may vary in the extent to which they contribute to one's quality of life.

For each decision, **please rate the extent to which choosing either option would improve your quality of life.**

S5: Life Simulation

Thank you for participating in this study, which is a financial life simulation. In this simulation, you are a full-time employed, single adult, and you live in your own apartment. You are responsible for paying all of your own bills. As in real life, you will make financial decisions and life choices each week as you deal with expected and unexpected events. For instance, you will have to choose between dining in versus eating out, and outfitting your workspace with a proper desk versus a table. Lastly, you will face a major expenditure for which you will need to take out a personal loan. Many of these decisions will require making trade-offs between higher quality of life and higher spending, and lower quality of life and lower spending.

Throughout this simulation, **your goal is to accumulate Quality of Life (QOL) points, avoid overdrafting your account, and accumulate savings** (at the end of each month, any net savings will be swept into your savings account and will not be usable in future months unless specified to do so). **In other words, you will need to carefully balance your desires for higher quality of life purchases with limiting your spending in each month**, just like in real life. **At the end of the study, we will provide you with your accumulated QOL points and savings balance, and you will earn a bonus ranging between \$0 and \$1. The higher your QOL points and the higher your savings balance, the higher your bonus. However, 5 cents will be deducted from your bonus each time you overdraft.**

To start, you will need to review your monthly budget.

Monthly Budget

Monthly Income: You work 40 hours per week and get paid monthly. Your monthly paychecks total \$2,600 (after taxes and benefits).

Monthly Expenses: Your expenses include both fixed (bills, rent, etc.) and variable (electricity, dining out, entertainment, etc.) expenditures and thus **change month-to-month.**

Appendix 1.1 (Cont.)

Review the below monthly budget summary:

Monthly Income	\$2,600
Average Monthly Expense	\$2,100
Average Monthly Slack	\$500

Next, as practice, you will make three financial decisions. These decisions are similar to what you can expect to see in the rest of the simulation, however these three questions **do not** count towards your final account balance or accumulated QOL points. Following these decisions you will see a summary of what your finances would have looked like based on the choices you make, had the choices counted toward your balance and accumulated points.

Practice Round Summary	
Note: based off your monthly income, average monthly expenses, and the choices you just made. Results from the practice round will not affect the rest of the simulation.	
Income	\$2600
Expenses	\$1900
Total Cost of 3 Choices	\$126
Ending Balance	\$574
QOL Points Earned	139

Now, you will proceed to the simulation, which consists of two months' worth of decisions. You must make eight decisions: four decisions for month one, and four decisions for month two. These eight decisions **do** count towards your final account balance and accumulated points; the costs of your choices will be deducted from your account balance and Quality of Life (QOL) points will be added to your QOL balance. Additionally, these eight decisions will be used to simulate your finances three years into the future.

Reminder, it is important you strive to accumulate QOL points, avoid overdrafting your account, and accumulate savings, as you normally would in real life.

Appendix 1.1 (Cont.)

<u>Month 1 Summary</u>		<u>Month 2 Financial Summary</u>	
Note: based off your monthly income, average monthly expenses, and the choices you just made.		Note: based off your monthly income, average monthly expenses, and the choices you just made.	
Income	\$2600	Income	\$2600
Expenses	\$1760	Expenses	\$1951
Total Cost of Choices	\$83	Total Cost of Choices	\$189
Ending Balance	\$757	Ending Balance	\$460
QOL Points Earned this month	180	QOL Points Earned	218

Next, you will make another financial decision. Unlike the previous eight decisions you made, **this next decision will be a major financial decision, one that can impact your finances for several months. At the same time, given the size of the purchase, you can earn numerous QOL points from it.**

Reminder, it is important you strive to accumulate QOL points, avoid overdrafting your account, and accumulate savings as you normally would in real life.

Major Financial Decision

For years you've imagined taking an African Safari. You decided now is the time to go. After considering your options you decide to go on the African Safari described below.

African Safari

Cost Estimate: \$4,150



8 Day All-Inclusive African Safari
Includes: Lodging (Hotel and Tented Camp);
Flights; All Meals; Airport Shuttle;
Private Tours; and Game Drives

Appendix 1.1 (Cont.)

Next, we are going to simulate your finances for the next three years. This three year simulation will be based on your monthly income and average monthly expenses, and will account for the eight choices as well as the personal loan choice you made previously. Lastly, the simulation will calculate the accumulated quality of life points earned.

Once the simulation is complete, you will see a three year summary and can proceed to review your final savings account and QOL points balances, including month one and month two decisions. These final balances will be used to determine your bonus payment.

<u>3 Year Summary</u>			
Note: based off your monthly income, average monthly expenses, and simulated choice costs based on the choices you previously made.			
	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Income	\$31200	\$31200	\$31200
Expenses	\$22768	\$23091	\$23367
Total Cost of Choices	\$2120	\$956	\$2168
Personal Loan Payments	\$2400	\$2400	\$2400
Ending Balance	\$3912	\$4753	\$3265
Number of Overdrafts	1	0	1
QOL Points Earned	3600	3180	3368

<u>Ending Balance Summary</u>	
Note: based off your monthly income, average monthly expenses, month one and two choices, and three year simulated values.	
Ending Balance	\$15175
Number of Overdrafts	2
QOL Points Earned	10546

Appendix 1.2 Measures

Study 1
<p>Loan Application Purpose: What is the purpose of your loan request today?</p> <p>MP (LA): What is your preferred monthly payment (loan amount) for this loan (\$)?</p> <p>Loan Acceptance: Would you accept the above loan if approved? 1 = <i>No</i>, 2 = <i>Yes</i></p> <p>Attention Check: What was the purpose for your loan application today? 1 = <i>To buy concert tickets</i>; 2 = <i>To finance a vacation</i>; 3 = <i>To buy a new refrigerator</i></p>
Study 2
<p>Response Elaboration (open ended): How did you determine the monthly payment (loan amount) you initially provided? What information did you consider when coming up with \$(piped-in response)? Please describe <u>in detail</u> the information you considered and/or calculations you performed below.</p> <p>Response Elaboration (self-coded): Which of the following best describes your previous response (how you determined the amount you initially provided)? 1 = <i>I thought of an amount I knew I could afford</i>; 2 = <i>I thought of other monthly payments I have and adjusted from those</i>; 3 = <i>I thought of the purchase price of the washer dryer set</i>; 4 = <i>I calculated an amount in my head</i>; 5 = <i>I guessed</i>; 6 = <i>Other (please specify)</i></p> <p>Task Complexity (Laroche et al. 2015): When completing the initial loan application, determining an amount to request was 1 = <i>Not at all difficult/complex/complicated</i>, 7 = <i>Very difficult/complex/complicated</i></p>
Study 3
<p>Screener:</p> <p>1) Below is a list of different types of debt/credit. Which of the following, if any, do you currently have? Select all that apply. 1 = <i>Auto Loan</i>; 2 = <i>Credit Card</i>; 3 = <i>Mortgage</i>; 4 = <i>Personal Loan</i>; 5 = <i>Student Loan</i>; 6 = <i>none of the above</i></p> <p>2) Do you own your current primary place of residence? 1 = <i>Yes</i>; 2 = <i>No</i></p>

Appendix 1.2 (Cont.)

Study 4	
Budget Slack Salience Manipulation Check To what extent do you agree or disagree with the following statement? My monthly budget slack was noticeable in my mind as I tried to determine what monthly payment to request for the loan. 1 = <i>Strongly disagree</i> , 7 = <i>Strongly agree</i>	
Budget Slack Amount Manipulation Check	
<u>Salient Budget Slack</u> How would you evaluate your monthly budget slack you provided earlier? My monthly budget slack feels like... 1 = <i>Very little</i> , 7 = <i>A lot</i>	<u>High Budget Slack</u> How would you evaluate the monthly budget slack you saw in the opening scenario? The monthly budget slack feels like... 1 = <i>Very little</i> , 7 = <i>A lot</i>
Actual Budget Slack Amount - Control What do you estimate your <u>monthly budget slack</u> to be (\$)? Actual Budget Slack Subjective Value – Control How would you evaluate your monthly budget slack? My monthly budget slack feels like... 1 = <i>Very little</i> , 7 = <i>A lot</i> Actual Budget Slack Amount – High 1) What do you estimate your <u>actual monthly budget slack</u> to be (\$)? 2) How would you evaluate your actual monthly budget slack? My actual monthly budget slack feels like... 1 = <i>Very little</i> , 7 = <i>A lot</i> Involvement (Pham and Avnet 2004): 1) I took the task of determining a monthly payment for the application seriously. 2) I really read the description for the backyard wedding ceremony and reception as if I needed to pay for a backyard wedding ceremony and reception. 3) I took extra care to make a sound request when determining what monthly payment to request. 1 = <i>Strongly disagree</i> , 7 = <i>Strongly agree</i>	

Appendix 1.2 (Cont.)

Study 5: Pretest

- 1) Networking events are great opportunities to meet new people and expand possibilities for one's career. For upcoming events, attendees can choose to attend either in-person (\$100) or remotely (\$25).
To what extent would attending a networking event in person improve your quality of life?
To what extent would attending a networking event remotely improve your quality of life?
- 2) You are getting tired of water and sugar drinks. Time for some nice tea. You can choose between loose leaf tea at the local tea shop (\$21), or generic tea bags at the grocery store (\$7).
To what extent would drinking loose leaf tea from a local tea shop improve your quality of life?
To what extent would drinking generic tea from a grocery store improve your quality of life?
- 3) You decided to take up playing an instrument. You can either sign up for lessons (\$82) or try to teach yourself (\$0).
To what extent would taking music lessons to learn to play an instrument improve your quality of life?
To what extent would teaching yourself to play an instrument improve your quality of life?
- 4) Your tiny desk is more frustration than help. You need a bigger workspace to get your work done. You may either purchase a proper desk (\$124) or a cheap table (\$37).
To what extent would owning a proper desk improve your quality of life?
To what extent would owning a cheap table improve your quality of life?
- 5) You need a book for studying for an upcoming professional license exam. You may either choose to buy (\$94) or rent (\$17) the book.
To what extent would buying a book to study improve your quality of life?
To what extent would renting a book to study improve your quality of life?
- 6) You're getting sick of packing sandwiches for lunch. You can either join your co-workers for a lunch out (\$35) or bring a frozen lunch to the office and eat at your desk (\$4).
To what extent would eating out with co-workers for lunch improve your quality of life?
To what extent would eating a frozen lunch at the office improve your quality of life?

Appendix 1.2 (Cont.)

- 7) Your favorite basketball team is playing in the playoffs tomorrow night. You may either attend the game live in-person (\$65) or live stream from home (\$15).
To what extent would attending the game live in-person improve your quality of life?
To what extent would live streaming the game from home improve your quality of life?
- 8) The air has been very dry and your skin is cracking. You may either buy a humidifier (\$109) or purchase a bottle of lotion (\$11).
To what extent would using a humidifier to relieve your dry skin improve your quality of life?
To what extent would using lotion to relieve your dry skin improve your quality of life?
- 9) An item you really want is only available on-line. After you buy it today, you can receive it overnight (\$10) or wait 2 weeks (no charge).
To what extent would receiving the item overnight improve your quality of life?
To what extent would receiving the item in 2 weeks improve your quality of life?
- 10) The shoulder strap tore off your book bag. You can either replace it with a sturdy premium brand bag (\$75) or a light nylon bag on-sale (\$30).
To what extent would replacing your book bag with a sturdy premium brand bag improve your quality of life?
To what extent would replacing your book bag with a light nylon bag on-sale improve your quality of life?
- 11) Warm weather is coming, and you need to buy a summer top. You can choose between your favorite brand (\$76) or something generic (\$22).
To what extent would wearing your favorite brand improve your quality of life?
To what extent would wearing something generic improve your quality of life?
- 12) Your parents want you to come home for a relative's birthday celebration. You can either fly home (\$363) or take the train (\$108).
To what extent would flying to get home for a relative's birthday celebration improve your quality of life?
To what extent would taking the train to get home for a relative's birthday celebration improve your quality of life?

0 = *Not at all*, 10 = *A great deal*

Appendix 1.2 (Cont.)

Study 5

Practice Round Financial Decisions:

- 1) Your friends just invited you to go out for dinner with them at a new restaurant in town. You ate at home every other night this week. Which of the following two options would you pick? 1 = Eat out with friends, cost = \$47, QOL = 65; 2 = Eat at home alone, cost = \$9, QOL = 37
- 2) Your favorite band is in town playing in a concert. To watch the performance, you may either attend in-person or live stream it from home. How would you like to watch the performance? 1 = In-person, cost = \$96, QOL = 58; 2 = Live stream, cost = \$16, QOL = 46
- 3) Your go-to everyday sneakers have finally worn down and need to be replaced. You can either replace them with a similar, high quality brand, or a discount shoe on-sale. Which shoe would you like to buy? 1 = High-quality brand, cost = \$72, QOL = 59; 2 = Discount shoe, cost = \$21, QOL = 44

Month 1 Simulation Financial Decisions:

- 1) Networking events are great opportunities to meet new people and expand possibilities for one's career. For upcoming events, attendees can choose to attend either in-person or remotely. How would you like to attend the event? 1 = In-person, cost = \$100, QOL = 64; 2 = On-line, cost = \$25, QOL = 46
- 2) You are getting tired of water and sugar drinks. Time for some nice tea. You can choose between loose leaf tea at the local tea shop or generic tea bags at the grocery store. Which would you choose? 1 = Loose leaf tea, cost = \$21, QOL = 52; 2 = Cheap tea bags, cost = \$7, QOL = 49
- 3) You decided to take up playing an instrument. You can either sign up for lessons or try to teach yourself? 1 = Sign-up, cost = \$82, QOL = 67; 2 = Teach yourself, cost = \$0, QOL = 48
- 4) Your tiny desk is more frustration than help. You need a bigger workspace to get your work done. You may either purchase a proper desk or a cheap table. Which workspace would you choose? 1 = Proper desk, cost = \$124, QOL = 78; 2 = Cheap table, cost = \$37, QOL = 34

Appendix 1.2 (Cont.)

Study 5 (Cont.)

Month 2 Simulation Financial Decisions:

- 1) You're getting sick of packing sandwiches for lunch. You can either join your co-workers for a lunch out or bring a frozen lunch to the office and eat at your desk. Which lunch option would you choose? 1 = Eat out w/ co-workers, cost = \$35, QOL = 65; 2 = Frozen lunch at your desk, cost = \$4, QOL = 37
- 2) Your favorite basketball team is playing in the playoffs tomorrow night. You may either attend the game live in-person or live stream from home. How would you like to watch the event? 1 = Live in-person, cost = \$65, QOL = 58; 2 = Live stream from home, cost = \$15, QOL = 46
- 3) The air has been very dry and your skin is cracking. You may either buy a humidifier or purchase a bottle of lotion. How would you like to relieve your dry skin? 1 = Humidifier, cost = \$109, QOL = 63; 2 = Lotion, cost = \$11, QOL = 56
- 4) The shoulder strap tore off your book bag. You can either replace it with a sturdy premium brand bag or a light nylon bag on-sale. Which bag would you choose? 1 = Sturdy premium brand bag, cost = \$75, QOL = 9; 2 = Light nylon bag on sale, cost = \$30, QOL = 44

Loan Decision

Would you accept the above loan if approved? (Y/N)

Note 1: If the loan amount is greater than the estimated cost of the vacation, any excess funds will be added to your savings balance should you choose to accept the loan.

Note 2: If the loan amount is less than the estimated cost of the vacation, any remaining funds needed to cover the cost will be subtracted from your savings account balance should you choose to accept the loan.

Appendix 1.3

Supplemental Analyses

Summary of Results Including Outlying Data

Table A1.1 summarizes the exclusions across studies. The exclusion rates were higher in S4-5 primarily because more participants failed the attention check. Table A1.2 shows the main results without applying our data cleaning procedure. Table A1.3 shows the accepted loan results without applying our data cleaning procedure. The patterns are mostly the same, but the outlying observations not only inflate standard errors but also bias the means and should be excluded. Table A1.4 shows the quality of life (QOL) points consumers would assign to various consumption decisions, which were used to inform the life simulation questions used in S5.

Table A1.1

Exclusion Criteria	Exclusions					
	Pilot	S1	S2	S3	S4	S5
None	554	151	301	268	454	110
Failed attention check	-	1	4	1	24	13
Cook's D > 4/N	5	3	1	2	8	8
MP < \$10						
LA < \$100	14	2	5	6	21	2
> $M_{\text{cond}} + 3SD$						
Total exclusions (%)	19 (3.4%)	6 (4.0%)	10 (3.3%)	7 (2.6%)	53 (11.7%)	23 (20.9%)
Valid N in	535	145	291	259	401	87
main analyses (%)	(96.6%)	(96.0%)	(96.7%)	(96.6%)	(88.3%)	(79.1%)

Table A1.2

Summary of Results Without Exclusions					
Studies	Cost Level	Principal Requests M (SD)		<i>d</i>	Test statistic(s)
		MP	LA		
Study 1	Lower	\$9,833 (\$17,380)	\$3,408 (\$2,583)	.52	$t(148) = 3.16, p = .002$
Study 2	Lower	\$32,364 (\$199,604)	\$4,810 (\$1,633)	.20	$t(296) = 1.65, p = .100$
					Interaction: $F(1, 263) = 5.11, p = .025$
Study 3	Lower	\$11,624 (\$20,781)	\$5,171 (\$1,128)	.44	$t(263) = 2.74, p = .007$
	Higher	\$11,750 (\$14,324)	\$12,819 (\$3,328)	-.12	$t(263) = .41, p = .682$
Study 4	Higher	Slack level	Monthly Payments	Implied by cost	Omnibus: $F(2, 450) = .77, p = .466$
		Control	\$821 (\$2,620)	\$426	.13 vs. Salient: $t(450) = .94, p = .350$
		Salient	\$484 (\$2,581)	\$426	.11 vs. High: $t(450) = -2.34, p = .020$
		High	\$778 (\$2,585)	\$426	.02 vs. Control: $t(450) = -.12, p = .904$
Study 5	Lower	MP	LA		
		\$26,688 (\$123,895)	\$4,635 (\$2,770)		

TABLE A1.3

Accepted Loans Without Exclusions								
Study	Cost Level	Monthly Payment			Loan Amount			Aggregate Difference (\$)
		N	Aggregate (\$)	Mean (\$)	N	Aggregate (\$)	Mean (\$)	
1	Lower	32	350,016	10,938	52	187,876	3,613	162,140
2	Lower	65	3,972,020	61,108	84	373,212	4,443	3,598,808
3	Lower	39	318,654	8,171	46	240,025	5,218	78,629
	Higher	44	547,102	12,434	36	459,450	12,763	87,652
5	Lower	33	1,357,191	41,127	32	155,415	4,857	1,201,776
Total		213	6,544,983	30,728	250	1,415,978	5,664	5,129,005

Note: S4 is excluded because it has no Loan Amount condition.

TABLE A1.4

Study 5: Pretest - QOL Points			
Consumption decision	QOL	Mean	Mean x 10
Networking Event	High	6.41	64
	Low	4.59	46
Tea	High	5.19	52
	Low	4.88	49
Music Instruction	High	6.66	67
	Low	4.79	48
Workspace	High	7.75	78
	Low	3.38	34
Textbook	High	4.51	45
	Low	6.05	61
Lunch	High	6.53	65
	Low	3.68	37
Sporting Event	High	5.78	58
	Low	4.55	46
Skincare	High	6.29	63
	Low	5.60	56
Shipping Preference	High	4.95	50
	Low	4.75	48
Shoulder Bag	High	5.85	59
	Low	4.41	44
Clothing Item	High	4.89	49
	Low	4.64	46
Transportation	High	5.39	54
	Low	5.53	55

Note: Boldface indicates decision set selected for use in Study 5.

Study 5: Pretest

In this pretest, we sought to assess the quality of life (QOL) points consumers would assign to various consumption decisions.

Method

Eighty CloudResearch-approved MTurk participants were recruited for this 12-cell (Consumption decisions) within-subjects study for monetary compensation. Participants first read a definition of QOL. Specifically, participants read: Quality of life “is the degree to which an individual is healthy, comfortable, and able to participate in or enjoy life events” (Encyclopedia Britannica). Next, participants reviewed 12 sets of consumption decisions that included both a high and low QOL decision. For instance, for one set of decisions, participants read: “Networking events are great opportunities to meet new people and expand possibilities for one’s career. For upcoming events, attendees can choose to attend either in-person (\$100) or remotely (\$25).” These decisions were adapted from a real on-line financial simulation (<https://content.personalfinancelab.com/vfl/?v=c4782f5abe5c>) and were presented to participants in a random order. Then, participants indicated the extent to which making each choice would improve their QOL on a 0-10 scale (0 = Not at all, 10 = A great deal). Responses were averaged and multiplied by 10 to create the QOL points for the main study (see Table A1.4 for results).

Study 1: Additional Measures

In this study, we initially considered the role of consumers’ internal monthly payment reference point (typical monthly payment) and the estimated cost of the expenditure when constructing principal amounts. While we initially considered the role of typical monthly payments in consumers’ principal request amounts, we demonstrated in Studies 2-4 that

consumers are rather recruiting their monthly budget slack when constructing monthly payments. Thus, we mention these additional measures here only for transparency. Participants elaborated on what they thought of when constructing their monthly payments. Specifically, we asked participants “How did you determine the preferred monthly payment you initially provided? What information did you consider when coming up with (piped-in response)? Please describe in detail the information you considered and/or calculations you performed below.” Participants then self-coded their elaborations into one of five thought listing categories (1 = amount typical for loan like this, 2 = amount I could afford, 3 = cost and calculated, 4 = guessed, 5 = other). Additionally, we measured the extent consumers considered scale-compatible attributes via a single item: “When determining the loan amount you initially provided (piped-in dollar amount), to what extent did you consider either of the below: the estimated cost of the vacation; a typical monthly payment for personal loans taken to finance similar vacations?” (1 = estimated cost of the vacation, 7 = a typical monthly payment).

Study 2: Additional Measures

In this study, we also sought additional insight into what participants were thinking about when constructing their monthly payments. As previously mentioned in the main text, to understand the factors that individuals consider when determining the amounts they provide, we collected open-ended responses from participants, which participants then self-coded to identify which option best described their previous responses. In addition to self-coding their elaborations, participants in the monthly payment condition also explained via open-ended response what their self-coded elaborations meant to them. For instance, participants who indicated they thought about an amount they knew they could afford were asked “What does

affordable mean to you? What makes the amount you provided “affordable?” Participants who indicated they calculated the amount were asked “What calculation did you do to determine the amount you provided? Please write out in detail the calculation you did. Do not worry about whether it is correct or accurate, we are interested in the process you used to come up with the amount you provided.” Lastly, participants who indicated “other” were asked “What other monthly payments did you consider when determining your response? Please list all you thought of, including their approximate amounts.”

As an additional check that individuals were differentially thinking about their budget slack between the loan application formats, we used an alternative measure of slack consideration. Specifically, participants responded to a two-item consideration of financial constraint measure adopted from prior research (Tully, Hershfield, and Meyvis 2015): “When determining the amount you requested, to what extent did you think about your current financial constraints?” and “When determining the amount you requested, to what extent did you consider how much spare money you tend to have at the end of each month?” (1 = not at all, 7 = very much), which we averaged into our consideration of financial constraint measure ($\alpha = .86$). We also considered that rather than focusing on slack values specifically, individuals could be thinking about how they might have to modify their finances after taking a new loan. In other words, individuals could be engaging in prioritization planning. In consideration of this possible alternative process, participants responded to a four-item prioritization measure, adopted from prior research (Fernbach, Kan, and Lynch 2015): “When determining the amount you requested, to what extent did you think about how the loan would affect other areas of your budget such as the ability to eat out, pay your bills, etc.?” “When determining the amount you requested, to what extent did you think about how the loan would affect how much you can spend on other

purchases each month?”, “When determining the amount you requested, to what extent did you consider cutting back on other spending in the future to be able to afford the new loan?”, and “When determining the amount you requested, to what extent did you consider moving other expenses around to pay for a new bill?” (1 = not at all, 7 = very much), which we averaged into our engagement of prioritization planning measure ($\alpha = .87$).

Lastly, we consider and rule out that individuals are more involved when generating their request amounts or are more confident in their request amounts between conditions. Specifically, participants responded to three items from prior research to measure their level of involvement in the study (e.g., “I took the task of determining an amount for the application seriously,” 1 = Strongly disagree, 7 = Strongly agree), which we averaged into our involvement measure ($\alpha = .87$; Pham and Avent 2004). Participants also responded to a one-item measure of confidence: “Thinking back to the loan application you completed earlier, how confident are you in your response to “what is your preferred loan amount [monthly payment])?”, 1 = not at all confident, 7 = extremely confident.

Financial Constraint Consideration. A regression with financial constraint consideration as the dependent variable, and income, loan description, loan application format and the loan description x loan application format interaction as predictors revealed that loan application format had a significant effect on financial constraint consideration. Participants in the MP condition reported thinking more about their monthly financial constraints ($M_{MP} = 5.57$, $SD = 1.63$) than participants in the LA condition ($M_{LA} = 4.67$, $SD = 1.63$; $t(286) = 4.78$, $p < .001$, $d = .55$). Loan description also had a significant effect on financial constraint consideration. Participants in the loan description absent condition reported thinking more about their monthly financial constraints ($M_{Absent} = 5.36$, $SD = 1.63$) than participants in the loan description present

($M_{\text{Present}} = 4.89$, $SD = 1.63$; $t(286) = 2.46$, $p = .014$, $d = .29$). Income was a significant predictor ($b = -.135$, $t(286) = -2.21$, $p = .028$). The loan description x loan application format interaction was non-significant ($p = .98$). Thus, through this alternative measure of slack consideration, we find that consumers are more likely to consider their financial constraints when asked to provide a monthly payment (vs. loan amount), supporting our hypothesis.

Prioritization Planning. A regression with prioritization planning as the dependent variable, and income, loan description, loan application format and the loan description x loan application format interaction as predictors revealed that participants were equally likely to engage in prioritization planning across conditions (p 's $> .11$). Thus, differences in prioritization planning across conditions cannot account for differences in principal requests.

Involvement. Participants reported being highly involved in all four conditions. Specifically, participants reported being highly involved in the loan description present condition ($M_{\text{MP}} = 6.33$, $SD = .96$; $M_{\text{LA}} = 6.44$, $SD = .95$), and loan description absent condition ($M_{\text{MP}} = 6.37$, $SD = .96$; $M_{\text{LA}} = 6.26$, $SD = .95$). Moreover, participants reported being similarly involved between application format conditions ($t(286) = -.028$, $p = .98$), as well as loan description conditions ($t(286) = .61$, $p = .54$). The application format by loan description interaction and income were non-significant predictors (p 's $> .31$). Thus, differences in involvement across conditions cannot account for differences in principal requests.

Confidence. Participants reported being highly confident in all four conditions. Specifically, participants were highly confident in the loan description present condition ($M_{\text{MP}} = 5.67$, $SD = 1.44$; $M_{\text{LA}} = 5.57$, $SD = 1.45$), and loan description absent condition ($M_{\text{MP}} = 5.93$, $SD = 1.45$; $M_{\text{LA}} = 5.66$, $SD = 1.44$). Moreover, participants reported being similarly confident between application format conditions ($t(286) = 1.09$, $p = .28$), as well as loan description

conditions ($t(286) = -1.03, p = .31$). The application format by loan description interaction and income were non-significant predictors (p 's $> .62$). Thus, differences in confidence levels across conditions cannot account for differences in principal requests.

Study 3: Additional Measures

In addition to income, age, and education, we also measured whether participants had replaced the roof on their current home (31.7% had), and if so the approximate number of years ago that they did so (1 = fewer than 2 years ago, 2 = 2 to 4 years ago, 3 = 5 to 7 years ago, 4 = 8 to 10 years ago, 5 = 11 to 13 years ago, 6 = 14 to 16 years ago, 7 = more than 16 years ago) (modal response = 5-7 years). In addition to collecting consumers' consideration of scale compatible amounts via a categorical variable, we also measured consumers' consideration of scale compatible amounts via one bipolar measure (attribute weighting: "When determining the amount you requested, to what extent did you think about the estimated purchase price of the roof replacement versus an affordable payment amount for the loan?", 1 = Thought more about the estimated purchase price, 7 = Thought more about an affordable payment amount"), and two unipolar measures ("When determining the amount you requested, to what extent did you think about the estimated purchase price of the roof replacement?" and "When determining the amount you requested, to what extent did you think about an affordable payment amount for the loan?", 1 = not at all, 7 = very much). These measures do not directly measure consideration of slack but rather measure consideration of an affordable payment.

Lastly, we again consider and rule out that individuals are more involved when generating their request amounts or are more confident in their request amounts between conditions. Specifically, participants responded to three items from prior research to measure

their level of involvement in the study (e.g., “I took the task of determining an amount for the application seriously,” 1 = Strongly disagree, 7 = Strongly agree), which we averaged into our involvement measure ($\alpha = .87$; Pham and Avent 2004). Participants also responded to a one-item measure of confidence: “Thinking back to the loan application you completed earlier, how confident are you in your response to “what is your preferred loan amount [monthly payment])?”, 1 = not at all confident, 7 = extremely confident.

Involvement. Participants reported being highly involved across all four conditions. Specifically, participants were highly involved in the low cost ($M_{MP} = 6.23$, $SD = .87$; $M_{LA} = 6.52$, $SD = .88$), and high cost condition ($M_{MP} = 6.39$, $SD = .88$; $M_{LA} = 6.34$, $SD = .88$). Moreover, participants reported being similarly involved between application format conditions ($t(254) = -1.06$, $p = .29$), as well as cost conditions ($t(254) = .06$, $p = .95$). The application format by cost interaction and income were non-significant predictors (p 's $> .12$). Thus, differences in involvement across conditions cannot account for differences in principal requests.

Confidence. Participants reported being highly confident in all four conditions. Specifically, participants reported high confidence in the low cost ($M_{MP} = 5.25$, $SD = 1.34$; $M_{LA} = 5.75$, $SD = 1.34$), and high cost condition ($M_{MP} = 5.68$, $SD = 1.34$; $M_{LA} = 5.65$, $SD = 1.34$). Moreover, participants reported similar levels of confidence between application format conditions ($t(254) = -1.39$, $p = .17$), as well as cost condition ($t(254) = -.96$, $p = .34$). The application format by cost interaction and income were non-significant predictors (p 's $> .11$). Thus, differences in confidence levels across conditions cannot account for differences in principal requests.

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ESSAY 2

HOW ADVERTISED TERMS AFFECT CONSUMER BORROWING PREFERENCES

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Abstract

Automobile dealers and financial institutions often promote varying term lengths to attract more buyers and increase sales. In five experiments, the authors show that consumers' term preferences are influenced by advertised terms via a dual process that relies on both the assimilation of advertised terms into one's internal reference term, as well as the belief that advertised terms are recommended terms by the dealer. This effect does not depend on consumers' level of financial literacy. Furthermore, we demonstrate that adding a shorter default loan term to consumer loan applications, which is a simple change financial institutions can implement in their systems, attenuates the effect of longer advertised terms on consumer loan term preferences. These findings have implications for marketers of financial products, academic researchers, consumers, and public policy.

Introduction

When consumers apply for debt, lenders usually request they provide a desired loan term. Over the past several years, automobile lenders have increasingly offered longer loan terms (which allow for lower monthly payments) so consumers can afford higher-priced vehicles, and consumers have become increasingly accepting of lengthier automobile loan terms. In March 2020, the average automobile loan term exceeded 70 months for the first time in the United States (Akin 2020), while auto loans with terms of 72 or 84 months accounted for 42% of auto loan originations in 2017, up from 26% in 2009 (Consumer Financial Protection Bureau 2017). Such financing preferences have persisted despite expert advice to not exceed a 60-month term (Axelton 2020). Longer loan terms negatively affect consumers, especially those with lower credit scores who are most attracted to them, because they increase repayment risk and cost more overall, leading to higher default rates than shorter loan terms (Consumer Financial Protection Bureau 2017). Given this negative effect on consumer well-being, the current research investigates factors that affect how consumers choose loan terms when financing automobile purchases.

Prior research on consumer borrowing preferences suggests consumers prefer to match loan terms with a financed expenditure's estimated useful life (Hirst, Joyce, and Schadeewald 1994; Tully and Sharma 2018). According to this prior research, consumers who anticipate owning an automobile for five years would be expected to desire a five-year term loan. In other words, consumers' financing preferences would be as well-defined as their anticipated window of benefits. However, in real life, consumers commonly violate this expectation – that is, their window of benefits is ill-defined, or their loan term and window of benefits do not match.

Furthermore, an extensive literature demonstrates consumers frequently rely on external cues in their environments to construct preferences during elicitation procedures (e.g., Bettman, Luce, and Payne 1998; Slovic 1995). If consumers frequently do not match term to useful life, and their preferences are constructed during elicitation procedures, how do they decide upon desired automobile loan terms?

We suggest that consumers consider the relevant external cue of an advertised term, which automobile lenders frequently promote through various channels of marketing communications. We also study the processes by which advertised terms influence term preferences. First, we find an assimilative process by which consumers incorporate the advertised term into an internal reference term. Second, we find that consumers take the advertised term as an implicit recommendation. We show that these processes operate in parallel to influence the final loan term desired by consumers. Since many automobile lenders offer longer financing terms (e.g., 72, 84, and even 96 months), and consumers rely on these advertised terms to construct their term preferences, we also consider the use of a shorter term indicated as the default option within the loan application as a practical intervention firms or regulators can use to attenuate the effect of longer advertised terms on desired terms.

Thus, our research captures two routes by which lenders' advertised terms affect consumers' desired terms. As a result, this research contributes to our understanding of consumer loan preferences and to research on preference construction. This research also demonstrates assimilative processing in a new domain and extends the study of choice architecture to automobile term preferences. The remainder of this manuscript is organized as follows. First, we develop our conceptual framework and present our hypotheses. Then, we describe the four experiments in our empirical investigation. We conclude with a discussion of theoretical

contributions, implications for marketers of financial products, consumers, and public policy, and suggestions for future research.

Conceptual Development

Prior research on consumers' term preferences indicates consumers prefer to match loan terms with a financed expenditure's estimated useful life, at least when given the choice between a matching vs. non-matching option (Hirst et al. 1994; Tully and Sharma 2018). For instance, when presented with two loan options that varied in term length (7 vs. 15 years) to finance a home redecoration vs. home improvement, participants were more likely to choose the shorter term for the home redecoration and the longer term for the home improvement, ostensibly because the home improvement was expected to have a longer useful life than the fleeting redecoration (Hirst et al. 1994). In another study, faced with paying for one purchase out of savings and another through financing, consumers were more willing to select the material (vs. the experiential) purchase to be financed over a couple of months ostensibly because material purchases have a longer stream of benefits (Tully and Sharma 2018, Study 7). Such loan term – useful life matching occurs because, according to mental accounting research, consumers prefer to integrate the cost of the monthly repayments with the benefits of using the financed purchase each month (Prelec and Loewenstein 1998; Thaler 1985).

However, in real life, consumers frequently attain loan terms that differ from the financed expenditure's useful life – that is, their loan term and window of benefits from the expenditure do not match. Some loan terms exceed the financed expenditure's useful life while other loan terms fall short of the financed expenditure's useful life. Consider a personal loan taken out to

finance a one-week vacation or a major appliance (e.g., refrigerator). The benefits from a one-week vacation are primarily enjoyed during that week and the benefits from a refrigerator, on average, extend up to the useful life of about 14 years (Wroclawski 2019). But the term on the personal loan associated with each may only range from several months to a few years.

Furthermore, consumers often purchase newer vehicles while trading in vehicles that have not yet been paid off, while others retain vehicles for years past the financed loan term. In cases where consumers do not match term to useful life, how are they deciding upon desired terms?

Other research offers some insights into the variety of considerations consumers have when deciding on a term for their loans. For example, consumers usually prefer shorter-term loans because they are debt-averse, even when a longer-term loan would be financially superior (Kamleitner, Hoelzl, and Kirchler 2012; Prelec and Loewenstein 1998). Yet, consumers also demonstrate a preference for round number monthly payments, and are willing to accept longer terms and ultimately higher financing costs to obtain those monthly payment targets (Argyle, Nadauld, and Palmer 2019). It is also possible to induce consumers to prefer longer-term loans by making salient the monthly payment (vs. total financing cost; Lunn, Bohacek, and Rybicki 2016). Lastly, Wonder, Wilhelm, and Fewings (2008) suggest that consumers rely on their repayment ability and as a result, prefer intermediate automobile loan term lengths (60 months) on average; those with higher repayment ability desire shorter loan term lengths, while those that are financially constrained, and thus have lower repayment ability, desire longer loan term lengths to attain more affordable monthly payments.

This last finding is especially interesting because it shows contextual factors can influence the terms consumers desire. We study how a specific type of contextual information (i.e., advertised terms) made available near the time of financing will influence consumers' term

requests. To explain how advertised terms affect consumers' desired terms, we draw from research on preference construction, assimilative processes, and implicit recommendations, which we discuss next.

Preference Construction and Assimilative Processes

Classical preference theories suggest consumer preferences are well-defined (Payne, Bettman, and Johnson 1992). As a result, external cues present in one's environment should not influence consumers' final preferences. However, an extensive literature demonstrates that consumer preferences are constructed rather than revealed during elicitation procedures (Bettman et al. 1998; Monga, May and Bagchi 2017; Slovic 1995), such as when lenders elicit consumers' desired terms when applying for debt. Notably, when constructing numeric preferences, prior research suggests that consumers make use of external cues or contextual information to inform their final preferences. For instance, when determining the amount that one is willing to pay for a product, consumers rely on presently available information, such as price promotions, product attributes, comparable product attributes, etc., to inform their responses (Bettman et al. 1998).

Assimilation-contrast theory (Sherif, Taub, and Hovland 1958) helps to explain how external cues influence consumer responses to offers via changes in internal reference points (Lichtenstein and Bearden 1988; Monroe 1990; Urbany et al. 1988). When consumers encounter external cues, they update their internal reference point to reflect this newly encountered piece of information. A consumer's internal reference point therefore reflects the combination of values they have previously encountered. These values may be retrieved from memory and utilized in judgment and decision-making as-is, or they may be further influenced by contextual cues present in the environment at the time of judgment and decision-making (Helson 1964; Kan et al.

2014). For example, in price perception, a consumer who encounters an advertised reference price and offer price (e.g., “regularly \$100, sale price \$50”) generates a higher internal reference price than one who encounters only the same offer price (e.g., “sale price \$50”). In this way, consumers’ internal reference points assimilate toward external cues.

We expect this same process to apply to advertised terms. Many financing institutions, such as furniture stores, appliance centers, and automobile dealers and lenders advertise special terms to promote their financing offers directly within stores or areas where financing decisions are made. Automobile dealers and financial institutions frequently advertise their automobile loan terms to attract consumers and increase sales and/or originations. Dealers may advertise terms directly on automobile windows or via a host of other media (e.g., print advertisements, internet, television, radio, verbally, etc.). Further, advertised terms are frequently communicated via mass media such that many consumers have encountered advertised terms at some point in their past. We suggest that when asked to provide a desired term, advertised terms affect these desired terms by updating consumers’ internal reference terms in an assimilative process. We posit consumers rely on these previously encountered terms to construct, as an internal reference point, a typical term for the expenditure they are aiming to finance (Klein and Ogelthorpe 1987), which influences their desired term. Formally, we hypothesize:

H1: Longer (vs. shorter) advertised terms increase the length of internal reference terms.

H2: Longer (vs. shorter) advertised terms increase the length of desired terms.

H3: The effect of longer (vs. shorter) advertised terms on the length of desired terms will be mediated by an increase in the length of the internal reference term.

Consumers also make inferences regarding marketer’s motives for including message content within advertisements (Campbell and Kirmani 2000). Thus, while we believe advertised terms

influence term preferences via an assimilative internal reference term process, we also expect consumers' inferences about the loan terms lenders promote will affect their final desired terms. We discuss this process next.

Information Leakage and Implicit Recommendations

The messages marketers include in their advertisements either directly convey or indirectly leak information to consumers. Advertisements may explicitly deliver information about a product, or they may provide implications of information, which prior literature has called "information leakage" (McKenzie, Liersch, and Finkelstein 2006). Implication may be desired by marketers, or sometimes it may simply be a result of consumers' inclinations to draw inferences from message content. A famous example of this inferential process is when consumers infer the motives of the marketer from their own interpretation of environmental cues (Campbell and Kirmani 2000; Friestad and Wright 1994; Isaac and Grayson 2017). However, other inferences abound. For example, after the contents of a glass had changed, when a speaker described it as half full, listeners were split on whether it had originally been full or empty (50%), but when a speaker described it as half empty, listeners inferred it was originally full (80%; McKenzie and Nelson 2003). Thus, the message leaked additional information to individuals.

Generally, marketer communications fall on a spectrum from skepticism-inducing to credible, and more credible tactics can be effective at persuading consumers (Isaac and Grayson 2017). One specific form of information leakage occurs when the message is interpreted as a credible implicit recommendation, which consumers rely on to inform their final preferences (Johnson and Goldstein 2003; McKenzie et al. 2006). For instance, McKenzie et al. (2006)

demonstrate that consumers perceive default options (e.g., an option in a list that is pre-selected) to reflect the choice policymakers think consumers should make. Specifically, participants indicated they believed policymakers thought consumers should be organ donors when the policymakers' default selection was "organ donor" versus "not an organ donor." When choosing between the two options (to be an organ donor or not), consumers were more likely to accept whichever option was the default.

In line with this prior research on implicit recommendations, we suggest that advertised terms are also perceived as what is recommended by the lender. Because the lender is a credible source of loan information, we expect consumers to favorably interpret this recommendation, increasing the likelihood that the specific term is adopted as the preferred term by consumers. Formally, we hypothesize:

H4: The effect of longer (vs. shorter) advertised terms on the length of desired terms will be stronger for individuals who perceive it as a recommendation to a higher (vs. lower) degree.

H5: Longer (vs. shorter) advertised terms increase the term length perceived as recommended.

H6: The effect of longer (vs. shorter) advertised terms on the length of desired terms will be mediated by an increase in the term length perceived as recommended.

Next, we propose a relevant intervention (the inclusion of a default term option) that would attenuate the effect of longer advertised terms on term preferences to nudge consumers towards shorter (and overall less costly) automobile loan terms.

Default Bias

Defaults are “externally determined options that consumers receive by not explicitly choosing otherwise” (Goswami and Urminsky 2016, p. 830). Prior research demonstrates that setting a default can affect consumers’ choices in domains such as organ donation, retirement planning, and donation behavior (Goswami and Urminsky 2016; Johnson and Goldstein 2003; Madrian and Shea 2001; McKenzie et al. 2006). While competing processes exist, the results of much of this research indicate that a primary reason that consumers adopt defaults as their final choice is because they perceive the default as recommended by the other party (Goswami and Urminsky 2016; Johnson and Goldstein 2003; Madrian and Shea 2001; McKenzie et al. 2006).

In most of the previous research, default options are indicated through pre-selection, and consumers may either leave the default selected or select an alternative option. Likewise, during the financing process, online consumer loan applications may include a default loan term or alternately require consumers to enter a desired term often from a drop-down box. Similarly, in person, lenders may indicate a specific term as the default or ask consumers to indicate their desired term.

Using a default term is interesting in our context for two reasons. First, because of the implicit recommendation content of the default (McKenzie et al. 2006), indicating a default option may confirm the recommendation implied by the advertised term if they match, or it may conflict with the recommendation implied by the advertised term if they do not match (Goldstein and Dinner 2013). Second, indicating a default option may draw attention to that specific term (Shen and Urminsky 2013), resulting in it playing a larger role in affecting consumers’ internal reference terms. Both of these reasons suggest that indicating a default term that is the same as the advertised term (vs. different from the advertised term) should lead to a stronger effect of the

advertised term. This moderating effect of the default would work through the two processes we identify as important to why advertised terms affect desired terms. Formally:

H7: The effect of longer (vs. shorter) advertised terms on the length of desired terms will be moderated by the use of a default term such that the effect will be stronger when the default and advertised terms are the same (vs. different).

This research makes three main contributions to the literature and has implications for consumers, managers, and public policy. First, we find evidence that advertised terms affect consumer term preferences and thus contribute to literature on consumer borrowing preferences. Second, we contribute to the internal reference point and implicit recommendation literatures by showing that consumers' term preferences are influenced by advertised terms via both processes simultaneously, which has not been previously studied. Third, by identifying the underlying parallel processes consumers undergo to determine their term preferences, we are able to propose a simple, low cost, managerially relevant intervention firms can use to augment the effect of advertised loan terms on term preferences. In so doing, we not only bring attention to the relevance of advertised terms to term preferences, but we also show that the interplay of default terms and advertised terms can have conflicting implications for consumers and managers. We elaborate on these implications in the General Discussion. Next, we describe the four experiments in our empirical investigation.

Study 1a: The Effect of Advertised Terms

In this study, we test the influence of advertised terms on desired terms and the mediating role of internal reference terms.

Method

One hundred and eighty participants from Prolific participated in this 3-condition (Advertised Term [AT]: control, short [36 months], long [84 months]) between-subjects study for monetary compensation. Participants imagined an auto financing scenario. Specifically, participants read the following: “Imagine that you are in the market for a new vehicle. After considering your options, you’ve decided to buy a brand new 4 door sedan with a purchase price of \$20,175. You do not have money for a down payment and will need to take out an auto loan for the full purchase price of \$20,175. Your current vehicle is worth \$3,000 and you owe \$3,000 on it, so it does not affect the financing at all.” Next, participants were randomized to an advertised term condition and viewed a financing offer of 0% financing (control), 0% financing for up to 36 months (short), or 0% financing for up to 84 months (long), depending on the AT condition. Participants then imagined they were at the dealership applying for an auto loan to purchase the vehicle. As an attention check, as well as to replicate actual loan application questions, participants were asked to state the purpose of their loan (open-ended).

All participants were then informed they qualified for the 0% APR and asked for how many months they would like to take out the \$20,175 auto loan (24, 36, 48, 60, 72, 84, or 96 months), which served as our measure of desired term. To measure internal reference term, participants were asked, “Based on the car buying scenario you read, what do you think is the typical term (in months) for \$20,175 auto loans to buy brand new 4 door sedans?” Participants responded using the same seven-option scale used to measure desired term. Finally, participants completed demographic questions. A coding error resulted in three participants selecting more than one response to the internal reference term measure, who we had to exclude. Additionally,

one participant provided a loan application purpose that did not indicate an auto purchase loan purpose (i.e., “to buy it now”), leaving 176 participants in the analysis ($M_{\text{age}} = 32$, 52% female).

Results

Desired Term. An ANOVA with desired term as the dependent variable and advertised term (AT) as a predictor revealed a significant main effect of AT ($F(2, 173) = 42.91, p < .001, \eta_p^2 = .33$) on desired term. Consistent with our hypothesis, planned contrasts revealed participants desired significantly longer terms in the long versus control AT condition ($M_{\text{LongAT}} = 72.00, SD = 18.31$ vs. $M_{\text{Control}} = 54.67, SD = 19.13; M_{\text{Diff}} = 17.33; t(173) = 5.41, p < .001, d = .93$) and significantly shorter terms in the short versus control AT condition ($M_{\text{ShortAT}} = 41.68, SD = 14.36$ vs. $M_{\text{Control}} = 54.67; M_{\text{Diff}} = -12.98; t(173) = -4.07, p < .001, d = .77$). Participants requested significantly longer terms after seeing the long versus short AT condition ($M_{\text{LongAT}} = 72.00$ vs. $M_{\text{ShortAT}} = 41.68; M_{\text{Diff}} = 30.32; t(173) = 9.23, p < .001, d = 1.84$). Thus, participants were highly sensitive to the advertised term when requesting the term for their loan (see figure 1).

Internal Reference Term. An ANOVA with internal reference term as the dependent variable and AT as a predictor revealed a significant main effect of AT ($F(2,173) = 11.42, p < .001, \eta_p^2 = .12$) on internal reference term. Consistent with our hypothesis, participants reported significantly longer reference terms in the long versus control AT condition ($M_{\text{LongAT}} = 63.00, SD = 17.61$ vs. $M_{\text{Control}} = 56.38, SD = 12.68; M_{\text{Diff}} = 6.62; t(173) = 2.40, p = .053, d = .43$) condition, and significantly shorter reference terms in the short versus control AT condition ($M_{\text{ShortAT}} = 49.47, SD = 14.71$ vs. $M_{\text{Control}} = 56.38; M_{\text{Diff}} = -6.91; t(173) = -2.51, p = .039, d = .50$). Participants reported significantly longer reference terms in the long versus short AT condition ($M_{\text{LongAT}} = 63.00$ vs. $M_{\text{ShortAT}} = 49.47; M_{\text{Diff}} = 13.53; t(173) = 4.78, p < .001, d = .83$).

Mediation. A mediation analysis using 5,000 bootstrapped resamples was conducted using PROCESS Model 4 (Hayes 2013). Because we had a trinary predictor variable, we evaluated the effect of AT using the multicategorical option (short = -1, control = 0, long = 1). This mediation analysis revealed that internal reference term mediated the effect of AT (vs. control) on desired terms for both the short AT ($ab_{\text{ShortAT}} = -2.52$, $CI_{95\%}: [-4.91, -.59]$) and long AT ($ab_{\text{LongAT}} = 2.42$, $CI_{95\%}: [.35, 4.92]$) (see figure 2.2). Thus, AT affected desired terms through its effect on internal reference terms. Furthermore, as expected, there remained a significant direct effect of advertised term on desired term, reflecting the existence of an additional process beyond the internal reference term. Relative to the control condition, after accounting for the internal reference term process, participants desired significantly shorter terms in the short AT condition ($c'_{\text{ShortAT}} = -10.46$, $t(172) = -3.38$, $p = .001$), and significantly longer terms in the long AT condition ($c'_{\text{LongAT}} = 14.92$, $t(172) = 4.81$, $p < .001$).

Discussion

Study 1a shows that, in an automobile financing scenario, consumers request longer financing terms when longer versus shorter terms are advertised by the dealer. Furthermore, consistent with hypothesis 2, we demonstrate that consumers update their internal reference terms based on advertised terms, and that this partially contributes to a shift in the terms they request. We also found a large residual direct effect of advertised terms and a tendency for consumers to request terms that assimilate those advertised.

Study 1b: The Effect of Advertised Terms with Additional Information

In this study, we sought to replicate our findings from Study 1a using a different stimulus and advertised interest rate while providing participants with additional financing information at the point of decision, including the monthly payment and total financing cost.

Method

Five hundred and sixty-four participants from CloudResearch-approved MTurk participants were recruited for this study for monetary compensation. To ensure the relevance of the loan purpose for study participants, we aimed to sample only individuals who indicated they were in the market for an auto loan to purchase a vehicle at the time of the study. As a result, we over-recruited participants to ensure our final sample was sufficient. Participants who indicated they were in the market for an auto loan (124) were invited to participate in this 2-cell (AT: short [36 months] vs. long [84 months]) between-subjects design.

Participants imagined a similar auto financing scenario as in Study 1a. The short AT was 36 months, and the long AT was 84 months. Next, participants were asked to state the purpose of their loan (open-ended). All participants were then informed they qualified for the special 2.9% APR we used in this study. Then, participants viewed possible financing options based on loan terms that ranged from 24 to 96 months in increments of 12 months, and, for terms that exceeded the advertised term, included a slightly higher interest rate (3.9%), which would be typical of auto loans in the real world (details of these options are presented in the web appendix).

Then, participants indicated for how many months they would like to take out the \$26,415 auto loan, which served as our measure of desired term. To measure internal reference

term, participants were asked, “Based on the car buying scenario you read, what do you think is the typical term (in months) for \$26,415 auto loans to buy new small SUVs?” Participants responded using the same seven option scale used to measure desired term (24, 36, 48, 60, 72, 84, or 96). Then, participants completed an additional attention check indicating the term that was offered in the advertisement (0%, 1.9%, 2.9%, or other). Lastly, participants completed demographic questions. One participant provided a loan application purpose that did not indicate an auto purchase loan purpose (i.e., “for purchase”), and two participants indicated an advertised interest rate other than 2.9%, leaving 121 participants in the analysis ($M_{\text{age}} = 39$, 46% female).

Results

Desired Term. An ANOVA with desired term as the dependent variable and AT as a predictor revealed a significant main effect of AT on desired term. Consistent with our hypothesis, participants desired significantly longer terms in the long versus short AT condition ($M_{\text{LongAT}} = 65.14$, $SD = 18.00$ vs. $M_{\text{Short}} = 48.41$, $SD = 18.80$; $M_{\text{Diff}} = 16.73$; $F(1, 119) = 25.00$, $p < .001$, $\eta_p^2 = .17$). Thus, participants were highly sensitive to the advertised term when requesting the term for their loan even with additional financing information available.

Internal Reference Term. An ANOVA with internal reference term as the dependent variable and AT as a predictor revealed a significant main effect of AT on internal reference term. Consistent with our hypothesis, participants reported significantly longer reference terms in the long versus short AT condition ($M_{\text{LongAT}} = 67.81$, $SD = 14.80$ vs. $M_{\text{Short}} = 51.93$, $SD = 15.96$; $M_{\text{Diff}} = 15.88$; $F(1, 119) = 32.25$, $p < .001$, $\eta_p^2 = .21$).

Mediation. A mediation analysis using 5,000 bootstrapped resamples was conducted using PROCESS Model 4 (Hayes 2013). This mediation analysis revealed that internal reference

term mediated the effect of AT on desired terms ($ab = 7.47$, $CI_{95\%}: [3.20, 13.04]$). Thus, AT affected desired terms through its effect on internal reference terms. Again, as expected, there remained a significant direct effect of advertised term on desired term. Participants desired significantly longer terms in the long versus short AT condition ($c' = 9.26$, $t(118) = 2.66$, $p = .009$).

Discussion

This study replicates our findings from Study 1a using a different stimulus and advertised interest rate while providing participants with additional financing information at the point of decision, including the monthly payment and total financing cost. Specifically, it shows that consumers' internal reference terms assimilate those advertised, and that this partially contributes to a shift in the terms they request. We again found a large residual direct effect of advertised terms and a tendency for consumers to request terms that assimilate those advertised. All of these findings are consistent with our two-process explanation for the effect of advertised terms – that consumers desired terms assimilate those advertised, and they also perceive the advertised term as a recommendation that they should take. In Study 2, we directly test the implicit recommendation process.

Study 2: The Implicit Recommendation Process

In this study, we sought to test our hypothesized second process using a different loan type. We suggested that in addition to the assimilative internal reference term process, advertised terms affect desired terms because consumers believe the advertised terms are recommended by the lender. Thus, we expect that the extent to which individuals view the advertised term as an

implicit recommendation will moderate the effect of advertised term on desired term. This study also tests alternative explanations that previous research has indicated affects individuals' reliance on marketer suggestions. Individuals who see the task of deciding on a term as more bothersome or effortful could rely on the advertised term to reduce that friction rather than because of the implicit recommendation content of the message. Likewise, individuals who are higher in need for cognitive closure or have a more emotional (vs. rational) thinking style could rely on the advertised term to facilitate sidestepping the decision-making process rather than taking the advertised term as a recommendation per se (Otto, Clarkson, and Kardes 2016). We test these alternative explanations in this study.

Method

Two hundred and one CloudResearch-approved MTurk participants participated in this 2 - cell (AT: short [48 months] vs. long [96 months]) between-subjects study for monetary compensation. Participants imagined a recreational vehicle financing scenario (available in the web appendix). Next, participants in the short (long) advertised term condition viewed a financing offer by the dealership offering 2.9% financing for up to 48 months (96 months). Participants were then asked to imagine they were at the dealership applying for a recreation loan to purchase the camper and were informed they qualified for the 2.9% APR.

Participants reported the purpose of their loan request, which served as our first attention check, and were asked for how many months they would like to take out the \$31,990 recreation loan (24, 36, 48, 60, 72, 84, 96, 108, or 120 months), which served as our measure of desired term. Then, participants completed a four-item scale measuring decision bothersomeness ($\alpha = .96$) adopted from prior research (Otto et al. 2016). To measure effort, participants were asked to

what extent they agreed or disagreed with, “I requested the (piped-in term response) month term because it would have been too much effort to come up with a different term”, using a seven-point scale (1 = Strongly disagree, 7 = Strongly agree; [$M = 3.33$, $SD = 2.00$]; McKenzie et al. 2006). To measure belief in implicit recommendation of the advertised term, participants were asked to what extent they agreed or disagreed with, “I requested the (piped-in term response)-month term because the dealer appeared to want me to,” using a seven-point scale (1 = Strongly disagree, 7 = Strongly agree; McKenzie et al. 2006). To measure internal reference term, participants were asked, “Based on the camper buying scenario you read, what do you think is the typical term (in months) for \$31,990 recreation loans to buy brand new tow-behind camper?” Participants responded using an expanded 11-option version of the scale used to measure desired term (12 to 132 in increments of 12). As our second attention check, participants indicated which interest rate was advertised in the financing offer (0%, 1.9%, 2.9%, or other).

Then, to measure thinking style and need for cognitive closure, participants completed the six-item lay rationalism scale ($\alpha = .83$; Hsee et al. 2015) and the 15-item short need for closure scale ($\alpha = .91$; Roets and Hiel 2011) adopted from prior research. Finally, participants completed demographic questions. Sixteen participants provided a loan purpose that did not reference a camper/recreation purchase (i.e., bills, wedding, truck, business, etc.) and were thus excluded. Sixteen additional participants were excluded from analysis because they failed the second attention check, leaving 169 participants in the analysis ($M_{age} = 39$, 43% female).

Results

Desired Term. We conducted an OLS regression analysis to test the effects of advertised term (AT) (short AT = $-.5$, long AT = $.5$), belief in implicit recommendation (mean-centered

prior to analysis), and the focal interaction on desired term. We found a significant main effect of AT ($b = 32.82$, $t(165) = 10.68$, $p < .001$). Participants desired significantly longer terms in the long versus short AT condition ($M_{\text{Long}} = 81.07$, $SD = 23.85$ vs. $M_{\text{Short}} = 49.16$, $SD = 16.19$). Additionally, the AT x belief in implicit recommendation interaction effect was significant ($b = 5.02$, $t(165) = 3.25$, $p = .001$). A floodlight analysis (Spiller et al. 2013) found that the positive simple effect of the long (vs. short) AT on desired terms was significant regardless of participants' level of belief in implicit recommendation (recall that the internal reference term process is still at play), but the significant interaction indicated the magnitude of the effect varied such that the effect of AT was stronger for individuals who were more inclined to take the AT as an implicit recommendation, as depicted in figure 2.3. The main effect of belief in implicit recommendation was also significant ($b = 1.60$, $t(165) = 2.07$, $p = .040$).

Internal Reference Term. A regression with internal reference term as the dependent variable, and AT, belief in implicit recommendation, and the focal interaction as predictors revealed a significant main effect of AT ($b = 21.86$, $t(165) = 6.35$, $p < .001$). Participants indicated longer reference terms in the long versus short AT condition ($M_{\text{Long}} = 77.72$, $SD = 22.22$ vs. $M_{\text{Short}} = 56.39$, $SD = 22.15$). Neither the main effect of belief in implicit recommendation nor the interaction were significant predictors ($ps > .161$).

Alternative Explanations. Moderated mediation analyses using 5,000 bootstrapped resamples were conducted using PROCESS Model 15 (Hayes 2013). As the interaction on internal reference term was non-significant (the a-path), we mean-centered internal reference term, bothersomeness, effort, need for cognitive closure, and lay rationalism, and modeled potential interactions on the b-path and direct effect (c') path. This is in line with our theorizing since belief in implicit recommendation was expected to moderate the residual direct effect of

AT on desired terms but not the assimilative process through internal reference term. Similarly, should these alternative measures account for the effect of AT on desired term, they would moderate the residual direct effect of AT on desired term but not the assimilative process through internal reference term.

Bothersomeness. The internal reference term x bothersomeness (b-path) interaction was non-significant ($p = .283$). The results of the moderated mediation analysis confirmed the indirect effect through internal reference term did not significantly depend on bothersomeness ($a_1b_{12} = .78$, 90% CI: [-.93, 3.34]). Bothersomeness also did not significantly moderate the direct effect ($c'_2 = .17$, $t(163) = .09$, $p = .931$), indicating that bothersomeness failed as an alternative explanation for our findings.

Effort. The internal reference term x effort (b-path) interaction was non-significant ($p = .936$). The results of the moderated mediation analysis confirmed the indirect effect through internal reference term did not significantly depend on effort ($a_1b_{12} = -.05$, 90% CI: [-1.70, 1.82]). Effort also did not significantly moderate the direct effect ($c'_2 = .83$, $t(163) = .52$, $p = .607$), indicating that effortfulness failed as an alternative explanation for our findings.

Need for Cognitive Closure. The internal reference term x need for cognitive closure (b-path) interaction was non-significant ($p = .180$). The results of the moderated mediation analysis confirmed the indirect effect through internal reference term did not significantly depend on need for cognitive closure ($a_1b_{12} = 1.91$, 90% CI: [-1.55, 6.35]). Need for cognitive closure also did not significantly moderate the direct effect ($c'_2 = -2.34$, $t(163) = -.71$, $p = .480$), indicating that need for cognitive closure failed as an alternative explanation for our findings.

Lay Rationalism. The internal reference term x lay rationalism (b-path) interaction was non-significant ($p = .666$). The results of the moderated mediation analysis confirmed the

indirect effect through internal reference term did not significantly depend on lay rationalism ($a_1b_{12} = .59$, 90% CI: [-3.60, 3.36]). Lay rationalism also did not significantly moderate the direct effect ($c'_2 = -4.67$, $t(163) = -1.54$, $p = .125$), indicating that lay rationalism failed as an alternative explanation for our findings.

Path Analysis and Moderated Mediation. A moderated mediation analysis using 5,000 bootstrapped resamples was conducted using PROCESS Model 15 (Hayes 2013). As the interaction on internal reference term was non-significant (the a-path), we mean-centered internal reference term and belief in implicit recommendation and modeled potential interactions on the b-path and direct effect (c') path. This is in line with our theorizing since belief in implicit recommendation was expected to moderate the residual direct effect of AT on desired terms but not the assimilative process through internal reference term. Supporting our hypotheses, the internal reference term x belief in implicit recommendation (b-path) interaction was non-significant ($p = .672$). The results of the moderated mediation analysis confirmed the indirect effect through internal reference term did not significantly depend on belief in implicit recommendation ($a_1b_{12} = -.29$, 90% CI: [-1.67, 1.76]), and that the average indirect effect was significant ($a_1b_{11} = 6.58$, 95% CI: [1.97, 11.46]). There remained a significant direct effect of advertised term on desired term. Participants desired significantly longer terms in the long versus short AT condition ($c'_1 = 26.20$, $t(163) = 8.07$, $p < .001$), and belief in implicit recommendation significantly moderated this direct effect ($c'_2 = 4.64$, $t(163) = 2.72$, $p = .007$), indicating that in addition to the assimilative process, the implicit recommendation process also contributed to explaining the effect of AT on desired terms.

Discussion

This study replicates our findings from Studies 1a and 1b using a different loan purpose. Again, it shows that consumers update their internal reference terms based on advertised terms, and that this partially contributes to a shift in the terms they request. Critically, this study also provides support for hypothesis 3, the proposed implicit recommendation process. Specifically, the effect of longer (vs. shorter) advertised terms on desired terms, while accounting for the internal reference process, was stronger for individuals who perceived it to a greater degree as recommended by the lender. Lastly, this study also tests and rules out four possible alternative explanations that previous research indicates could affect participants' reliance on advertised terms. Our study did not find support for the alternative explanations that individuals could rely on the advertised term because considering non-advertised terms was more bothersome or effortful. Likewise, individuals who are higher in need for cognitive closure or have a more emotional (vs. rational) thinking style were not more likely to rely on the advertised term.

Study 3: Dual Mediation and Considering Financial Literacy

In this study, we have three objectives. First, we directly measure the term consumers perceive that the lender recommends, testing our dual mediation process. We also rule out additional alternative explanations. Specifically, we measure how affordable, appealing, or relevant the financing offer is perceived to be for consumers, and how familiar consumers are with financing offers to test whether these could have varied across the conditions and contributed to our observed effects. Lastly, since financial literacy has been identified as an important individual difference variable that affects how finance-related messages impact

consumer welfare (Servon and Kaestner 2008), we aimed to see if it would moderate any of our effects. Prior research offers some hints that moderation may be possible: those lower in domain knowledge (i.e., financial literacy) could be more susceptible to the assimilative process because they should have more malleable internal reference points (Klein and Oglethorpe 1987) but less susceptible to implicit recommendations because individuals low in financial literacy are less likely to rely on experts for advice (Lusardi and Mitchell 2011). We explore whether financial literacy affects responses to advertised terms or not.

Method

Two hundred and forty CloudResearch approved MTurk participants participated in this 2-cell (AT: short [36 months] vs. long [84 months]) between-subjects study for monetary compensation. Participants imagined they were in the market for a new automobile and needed to finance its purchase. Next, participants reported the purpose of their loan request, which served as our attention check, and were asked for how many months they would like to take out the \$20,175 auto loan (24, 36, 48, 60, 72, 84, or 96), which served as our measure of desired term. To measure internal reference term, participants were asked, “Based on the car buying scenario you read, what do you think is the typical term (in months) for \$20,175 auto loans to buy brand new 4 door sedans?” Participants responded using a seven-option scale (24, 36, 48, 60, 72, 84, or 96). Then, to measure the implicitly recommended term, participants were asked, “What term do you believe the dealer thinks is in your best interest?” Participants responded using the same seven-option scale used to measure internal reference term. Then, participants responded to items measuring potential alternative explanations for the effect of the advertised term (familiarity with, and perceived relevance, affordability, and appeal of the financing offer),

and as an additional attention check, participants indicated which interest rate was advertised in the financing offer (0%, 1.9%, 2.9%, or other). Then, participants completed a 13-item financial literacy scale adopted from prior research ($M = 9.36$, $SD = 2.76$, $\alpha = .79$; Fernandes, Lynch, and Netemeyer 2014). Finally, participants completed demographic questions. Three participants provided a loan purpose that did not reference an auto purchase (i.e., “education loan”). Five additional participants were excluded from analysis because they failed the second attention check leaving 232 participants in the analysis ($M_{\text{age}} = 39$, 47% female).

Results

Desired Term. We conducted an OLS regression analysis to test the effects of advertised term (AT) (short AT = -.5, long AT = .5), financial literacy (mean-centered prior to analysis), and the focal interaction on desired term (see table 1). We found a significant main effect of AT on desired term ($b = 23.85$ $t(228) = 10.95$, $p < .001$). Participants desired significantly longer terms in the long versus short AT condition ($M_{\text{Long}} = 65.26$, $SD = 20.88$ vs. $M_{\text{Short}} = 40.98$, $SD = 10.91$). Additionally, there was a significant main effect of financial literacy ($b = -.79$, $t(228) = -1.98$, $p = .049$). More financially literate participants desired shorter terms relative to less financially literate participants. The AT x financial literacy interaction was non-significant ($p = .844$).

Internal Reference Term. A regression with internal reference term as the dependent variable and AT, financial literacy, and the focal interaction as predictors revealed a significant main effect of AT ($b = 23.19$, $t(228) = 11.73$, $p < .001$). Participants indicated longer internal reference terms in the long (vs. short) AT condition ($M_{\text{LongAT}} = 68.21$, $SD = 17.73$ vs. $M_{\text{ShortAT}} = 45.36$, $SD = 11.96$). There was a marginally significant main effect of financial literacy ($b = .61$,

$t(228) = 1.70, p = .091$). More financially literate participants indicated longer internal reference terms relative to less financially literate participants. The AT x financial literacy interaction was non-significant ($p = .223$).

Implicitly Recommended Term. A regression with implicitly recommended term as the dependent variable and AT, financial literacy, and the focal interaction as predictors revealed a significant main effect of AT ($b = 27.01, t(228) = 10.58, p < .001$). Participants indicated longer recommended terms in the long (vs. short) AT condition ($M_{\text{LongAT}} = 68.53, SD = 23.45$ vs. $M_{\text{ShortAT}} = 41.29, SD = 14.25$). Neither the main effect of financial literacy nor the AT x financial literacy interaction were significant predictors ($ps > .374$).

Alternative Explanations. Separate regressions revealed a marginally significant effect of the AT x financial literacy interaction on offer appeal ($b = -.14, t(228) = -1.85; p = .066$). The main effects of AT and financial literacy on appeal were non-significant ($ps > .216$). There was a marginally significant main effect of AT on affordability ($b = -.30, t(228) = -1.67; p = .096$). The long (vs. short) AT was viewed as more affordable ($M_{\text{LongAT}} = 5.27, SD = 1.30$ vs. $M_{\text{ShortAT}} = 4.98, SD = 1.40$). The main effect of financial literacy and the AT x financial literacy interaction on affordability were non-significant ($ps > .588$). No effects of AT, financial literacy, or their interaction were observed for offer familiarity or relevance ($ps > .113$) with the exception of a main effect of financial literacy on familiarity ($b = .10, t(228) = 2.57, p = .01$). Thus, we include offer appeal and perceived affordability as possible competing mediators in our moderated mediation analysis to rigorously test our hypothesized dual internal reference term and implicit recommendation process.

Path Analysis and Moderated Mediation. A moderated mediation analysis using 5,000 bootstrapped resamples was conducted using PROCESS Model 8 (Hayes 2013). The coefficients

for the five regressions used in the analysis are reported in table 1. The results of the moderated mediation analysis confirmed neither the internal reference term process nor the implicitly recommended term process was conditional on financial literacy. The moderated indirect effect (i.e., index of moderated mediation) through internal reference term (mean centered) and implicitly recommended term (mean centered) were both non-significant (Internal reference term: $a_{11}b_1 = .25$, 90% CI: [-0.10, 0.71]; Implicitly recommended term: $a_{12}b_1 = .24$, 90% CI: [-0.23, 0.81]). Additionally, the indirect effects through appeal ($a_{12}b_1 = .24$, 90% CI: [-0.23, 0.81]) and affordability were non-significant ($a_{12}b_1 = .24$, 90% CI: [-0.23, 0.81]), while the average indirect effects through internal reference term ($a_1b_{11} = 6.59$, 95% CI: [3.17, 10.29]) and implicitly recommended term were significant ($a_1b_{11} = 8.25$, 95% CI: [3.86, 13.30]) (see figure 2.4). There remained a significant direct effect of advertised term on desired term. Participants desired significantly longer terms in the long versus short AT condition ($c'_1 = 9.27$, $t(228) = 3.79$, $p < .001$).

Discussion

Study 3 extends the findings of Study 2 by using a direct measure of the term consumers perceive the lender recommends. We find that participants indicated longer recommended terms when the longer (vs. shorter) term was advertised. We also rule out additional alternative explanations that could have existed between the two advertised term manipulations. Specifically, we rule out perceived affordability, appeal, and relevance of and familiarity with the financing offer. Lastly, we do not find evidence that financial literacy moderates any of our effects.

Study 4: Default Option as an Intervention

The purpose of this study was to test our hypothesis that using a default term that differed from (vs. matched) the advertised term would attenuate the effect of the advertised term on desired terms through both the internal reference term and implicit recommendation processes.

Method

Two hundred and one CloudResearch approved MTurk participants participated in this 2 (AT: short [36 months] vs. long [84 months]) x 2 (default term: different [60 months] vs. same [36 and 84 months]) between-subjects study for monetary compensation. Participants imagined they were in the market for a new automobile and needed to finance its purchase. Next, participants reported the purpose of their loan request, which served as our attention check, and were asked for how many months they would like to take out the \$20,175 auto loan (12, 24, 36, 48, 60, 72, or 84), which served as our measure of desired term. Here, the default term in the loan application for participants in the different default condition was pre-set to 60 months, and the default term for participants in the same default condition was pre-set to either 36 or 84 months depending on the AT condition. To measure internal reference term, participants were asked, “Based on the car buying scenario you read, what do you think is the typical term (in months) for \$20,175 auto loans to buy brand new 4 door sedans?” Participants responded using a seven-option scale (24, 36, 48, 60, 72, 84, or 96). Then, to measure implicitly recommended term, participants were asked, “What term do you believe the dealer thinks is in your best interest?”. Participants responded using the same seven-option scale used to measure internal reference term. As an additional attention check, participants indicated which interest rate was

advertised in the financing offer (0%, 1.9%, 2.9%, or other). Finally, participants completed demographic questions. Ten participants provided a loan purpose that did not reference an auto purchase (i.e., “home loan”). Four additional participants were excluded from analysis because they failed the second attention check leaving 187 participants in the analysis ($M_{\text{age}} = 39$, 49% female).

Results

Desired Term. An ANOVA with desired term as the dependent variable and advertised term (AT), default term, and the focal interaction as predictors revealed a significant main effect of AT ($F(1, 183) = 88.24, p < .001, \eta_p^2 = .33$) (see figure 2.5). Participants desired significantly longer terms in the long versus short AT condition ($M_{\text{Long}} = 65.23, SD = 19.48$ vs. $M_{\text{Short}} = 42.19, SD = 13.89$). The main effect of default term was non-significant ($p = .528$). Additionally, the AT x default term interaction was significant ($F(1, 183) = 5.15, p = .024$). When the default differed from AT, participants desired significantly longer terms in the long versus short AT condition ($M_{\text{Long}} = 61.75, SD = 18.69$ vs. $M_{\text{Short}} = 44.27, SD = 14.66, M_{\text{Diff}} = 17.48, F(1, 183) = 25.24, p < .001, \eta_p^2 = .12$). When the default term matched the AT, participants desired significantly longer terms in the long versus short AT condition, and the effect was even larger ($M_{\text{Long}} = 68.87, SD = 19.83$ vs. $M_{\text{Short}} = 40.25, SD = 12.98, M_{\text{Diff}} = 28.62, F(1, 183) = 68.40, p < .001, \eta_p^2 = .27$). Thus, using a default term of 60 months in the loan application format attenuated the effect of the AT on desired terms (see figure 3).

Internal Reference Term. An ANOVA with internal reference term as the dependent variable and advertised term (AT), default term, and the focal interaction as predictors revealed a significant main effect of AT ($F(1, 183) = 167.12, p < .001, \eta_p^2 = .48$). Participants indicated

longer internal reference terms in the long versus short AT condition ($M_{\text{Long}} = 69.32$, $SD = 12.34$ vs. $M_{\text{Short}} = 45.55$, $SD = 12.95$). The main effect of default term was non-significant ($p = .484$). Additionally, the AT x default term interaction was significant ($F(1, 183) = 4.71$, $p = .031$). When the default differed from AT, participants indicated longer internal reference terms in the long versus short AT condition ($M_{\text{Long}} = 68.00$, $SD = 11.70$ vs. $M_{\text{Short}} = 48.27$, $SD = 12.92$, $M_{\text{Diff}} = 19.73$, $F(1, 183) = 57.54$, $p < .001$, $\eta_p^2 = .24$). When the default term matched the AT, participants indicated longer internal reference terms in the long versus short AT condition, and the effect was even larger ($M_{\text{Long}} = 70.70$, $SD = 12.96$ vs. $M_{\text{Short}} = 43.00$, $SD = 12.58$, $M_{\text{Diff}} = 27.70$, $F(1, 183) = 114.62$, $p < .001$, $\eta_p^2 = .39$). Using a default term of 60 months in the consumer loan application attenuated the effect of the advertised terms on consumers' internal reference terms.

Implicitly Recommended Term. An ANOVA with implicitly recommended term as the dependent variable and advertised term (AT), default term, and the focal interaction as predictors revealed a significant main effect of AT ($F(1, 183) = 177.30$, $p < .001$, $\eta_p^2 = .49$). Participants indicated longer recommended terms in the long versus short AT condition ($M_{\text{Long}} = 70.47$, $SD = 17.44$ vs. $M_{\text{Short}} = 41.42$, $SD = 12.58$). The main effect of default term was non-significant ($p = .720$). Additionally, the AT x default term interaction was significant ($F(1, 183) = 9.77$, $p = .002$, $\eta_p^2 = .05$). When the default differed from AT, participants perceived the recommended term as longer in the long versus short AT condition ($M_{\text{Long}} = 66.75$, $SD = 15.04$ vs. $M_{\text{Short}} = 44.53$, $SD = 13.92$, $M_{\text{Diff}} = 22.22$, $F(1, 183) = 51.62$, $p < .001$, $\eta_p^2 = .22$). When the default term matched the AT, participants perceived the recommended term as longer in the long versus short AT condition, and the effect was even larger ($M_{\text{Long}} = 74.35$, $SD = 19.04$ vs. $M_{\text{Short}} = 38.50$, $SD = 10.49$, $M_{\text{Diff}} = 35.85$, $F(1, 183) = 135.93$, $p < .001$, $\eta_p^2 = .43$). Using a default term of 60 months

in the consumer loan application attenuated the effect of the advertised term on the implicitly recommended term.

Path Analysis and Moderated Mediation. A moderated mediation analysis using 5,000 bootstrapped resamples was conducted using PROCESS Model 8 (Hayes 2013). The results of the moderated mediation analysis confirmed a significant moderated indirect effect (i.e., index of moderated mediation) through internal reference term ($a_1b_{12} = 3.81$, 95% CI: [0.36, 8.00]), and a marginally significant indirect effect through implicitly recommended term ($a_2b_{22} = 2.81$, 90% CI: [0.20, 6.23]) (see table 2.2). When the default term was different from the advertised term (60 months), the indirect effect of AT through internal reference term was significant ($a_1b_{1,\text{different}} = 9.43$, 95% CI: [4.64, 14.63]), and when the default term matched the AT, the indirect effect through internal reference term was significant and larger ($a_1b_{1,\text{same}} = 13.24$, 95% CI: [6.81, 19.56]). When the default term was different from the advertised term, the indirect effect of AT through implicitly recommended term was marginally significant ($a_2b_{2,\text{different}} = 4.58$, 90% CI: [0.37, 8.96]), and when the default term matched the AT, the indirect effect was marginally significant and larger ($a_2b_{2,\text{same}} = 7.39$, 90% CI: [.62, 14.11]). Furthermore, the direct effect was only marginally significant when the default term was the same as the AT ($c'_{1,\text{same}} = 7.99$, $t(181) = 1.79$, $p = .075$), and non-significant when the default term was different from the AT ($c'_{1,\text{different}} = 3.47$, $t(181) = .92$, $p = .359$), indicating our dual processes were the primary drivers of the observable total effect on desired terms.

Discussion

Study 4 shows that, consistent with hypothesis 5, using a default term that matches (vs. differs from) the advertised term strengthens the effect of the advertised term on desired terms through both the internal reference term and implicitly recommended term processes.

Specifically, we find that for longer (vs. shorter) advertised terms, participants request longer terms, and this effect is even stronger when the default term used during the application process matches (vs. differs from) the longer advertised term. Furthermore, for longer (vs. shorter) advertised terms, we find that participants indicate longer internal reference terms, as well as implicitly recommended terms, with these effects also being stronger when the default term matches (vs. differs from) the advertised term. Both internal reference term and implicitly recommended terms continued to influence participants' desired terms such that the longer the internal reference term, and the longer the implicitly recommended term, the longer the term participants desired.

General Discussion

Automobile dealers and financial institutions often promote varying term lengths to attract more buyers and increase sales. Yet, there is surprisingly little research that addresses the effects of advertised terms for promoted financing offers on consumer borrowing preferences. Across five studies, we demonstrate the effect of advertised terms (long vs. short) on desired loan terms. This research shows that the promotion of such terms can affect the terms consumers request for their loans. Specifically, we demonstrate that different advertised terms lead to varying desired term lengths for two different loan types (automobile and recreation), across varied financing amounts, and for no and low-cost financing (0% and 2.9% interest rates). Moreover, we find that for longer (vs. shorter) advertised terms, consumers internal reference terms assimilate those advertised and positively affect desired terms. Furthermore, we find that consumers request longer terms due to consumers perceiving the advertised term as

recommended by the lender, which also positively affects desired terms. Lastly, we demonstrate that the effect of advertised terms on desired terms is strengthened when lenders use a default term in the consumer loan application that matches versus differs from the advertised term.

In Study 1a, we found that consumers request longer financing terms when longer versus shorter terms are advertised by the lender. Furthermore, consistent with hypothesis 2, we demonstrated that consumers update their internal reference terms based on advertised terms, and that this partially contributes to a shift in the terms they request. In Study 1b, we replicated the effect of advertised terms on desired terms while also providing participants with additional financing information at the point of decision. In Study 2, we found that the effect of advertised terms on desired terms, while accounting for the internal reference process, was stronger for individuals who perceived to a greater degree that the advertised term was recommended by the lender, consistent with our dual process explanation. Furthermore, we ruled out four possible alternative explanations that previous research indicates could have affected participants' reliance on advertised terms. In Study 3, we found that the residual effect of advertised terms on desired terms, while accounting for the internal reference process, is largely accounted for by the implicit recommendation process. In Study 4, we found that the effect of longer (vs. shorter) advertised terms on desired terms was stronger, and thus led to longer desired terms, when the default term matched (vs. differed from) the advertised term. Our findings contribute to understanding consumer financial decision making by identifying advertised terms as an important factor that affects consumer loan term preferences and delineating why and when advertised terms may be expected to have stronger (vs. weaker) effects.

Theoretical and Managerial Contributions

This research builds on prior preference construction literature by demonstrating a dual process in which external cues influence consumer preferences and replicates the role of internal reference points in a new context (consumer borrowing). Advertised terms affect consumers' desired terms by informing their internal reference terms in an assimilative process. As expected, consumers demonstrate a reliance on these contextual terms to construct, as an internal reference point, a typical term for the expenditure they are financing, which influences their desired term. Moreover, because consumers perceive the lender as a credible source of information, we find that advertised terms are also perceived as what is recommended by the lender, which then affects consumers' desired terms. This effect persists controlling for the internal reference term process and accounts for the majority of the remaining effect of advertised terms on desired terms. Overall, our findings add to the literature suggesting that preferences are constructed in the moment and are influenced by external cues, such as advertised terms, via a parallel process.

We also contribute to research on defaults by studying consumers' *construction* of term requests during consumer financing decisions. No prior research has evaluated the role of defaults in consumer borrowing contexts, where consumers exhibit debt aversion yet face decision uncertainty and thus rely on contextual information to make financing decisions. Using a default term that matches versus differs from advertised terms influences consumers term requests such that for longer (vs. shorter) advertised terms, consumers desire longer terms when the default term used in the loan application matches (vs. differs from) the advertised term via parallel internal reference term and implicit recommendation processes. Through the internal reference term process, indicating a default option likely draws attention to that specific term (Shen and Urminsky 2013), and causes further consideration of the term, resulting in it playing a

larger role in affecting consumers' internal reference terms. Through the implicit recommendation process, indicating a default option reinforces the recommendation implied by the advertised term if they match, yet conflicts with the recommendation implied by the advertised term if they do not match, also causing additional deliberation by the consumer (Goldstein and Dinner 2013).

Lastly, we contribute to research on financial decision making. We find that consumers generally know what term is typical for auto loans (in the control condition of S1, the mean was roughly 60 months). We also find that financial literacy does not moderate the effect of advertised term on desired terms; consumers are equally likely to assimilate the advertised term into their desired terms regardless of how financially literate they are. Thus, another contribution we make is that even when consumers have knowledge regarding typical market activity, and regardless of whether they can make informed borrowing decisions, they rely on advertised terms to construct their final term preferences.

Practically, by understanding the role of advertised terms in the loan application process, financial service firms can be better equipped to strategically promote advertised terms that align with firm goals; we show that simple term manipulations in ads can affect consumer decisions about a loan. Longer advertised terms can benefit lenders who want to increase sales of higher priced loans in the short term, particularly to financially constrained consumers. Shorter advertised terms can benefit lenders who want to increase sales turnover more frequently in the long term; shorter loan terms allow consumers to pay off their financed expenditures more quickly, and thus trade in and finance major purchases, such as new automobiles, more often.

Furthermore, by understanding the role of default terms in the loan application process, financial professionals can consider the purposeful use of matching versus differing default terms

based on borrower and purchase characteristics. For example, since consumers are equally likely to rely on advertised terms regardless of their level of financial literacy, and consumers with lower (vs. higher) credit scores pay higher financing costs for longer financing terms, lenders may want to lead with shorter default terms for borrowers with lower credit scores and who are more likely to be less literate (Disney and Gathergood 2013), to nudge these consumers towards shorter, less risky financing, as long as those consumers are able to afford the accompanying higher monthly payment.

Implications for Consumers and Public Policy

Although consumers appear to be doing their best by relying on what they perceive to be credible, financing relevant information, doing so with longer advertised terms can lead to higher financing costs and greater repayment risk, while doing so with shorter advertised terms may lead to greater than desired monthly payments. Thus, from a consumer well-being and public policy perspective, our research raises issues related to consumer protection. The Consumer Financial Protection Bureau (2021) has consumer information available targeted at the automobile loan process, but the information provided is only beneficial if the consumer seeks out said information *prior* to engaging in financing transactions. Yet many consumers construct their final preferences during the financing process when desired loan terms are requested (Bettman et al. 1998). While in-the-moment financial decision making would seem to fall under the broad goal of the Consumer Financial Protection Bureau (CFPB), there is room to address environmental/contextual factors and choice architecture and how they may affect consumer financing preferences at the point of decision making.

Limitations and Future Directions

Our investigation is not without limitations. First, although the experimental designs and auto financing scenarios of each study were meant to reflect the real-world environment of consumer borrowing, to isolate the effect of advertised terms, we held the financing amount constant. Our effect may vary across different financing amounts, as well as levels of consumers' financial constraints. In future research, these considerations could be varied and/or measured to explore potential heterogeneity. Second only a subset of consumers actually qualifies for the special terms advertised by financial institutions. Evaluating what terms consumers desire when the terms they qualify for differ from those advertised are of likely interest not only to academics, but also lenders and public policy agents. Third, we focused on situations where consumers already decided which purchase they were going to finance. Future research might consider the pre-approval phase where consumers do not yet have a specific purchase in mind, and evaluate how different advertised terms influence information search and consideration of alternative purchases. It is unclear what role different advertised terms would play in these situations.

Fourth, in this research we relied on single item measures for not only desired term length, internal reference term length, and implicitly recommended term length, but also belief in implicit recommendations. While these items allowed us to efficiently capture the proposed processes, they do not allow for tests of discriminant validity beyond mere correlations, for tests of reliability (e.g., Cronbach's alpha), or for the constructs to be validated through triangulation. To ensure consumers understand the meaning of "term" and ultimately its role in their decision making process, as well as to ensure the construct is fully captured by the measures used, multi-item measures could be used in the future. Fifth, we suggest that advertised terms influence

desired term lengths, in part, through an internal reference point process where consumers update their internal reference term after encountering advertised terms. While Study 1a provides between subjects evidence of this process due to the control condition where no term was advertised, future research might consider a longitudinal approach that evaluates this process within subjects.

Evaluations of additional perceptions, attitudes, and outcomes potentially influenced by varying advertised terms and even interest rates are also beneficial in developing a broader understanding of how advertised terms affect consumer borrowing decisions both at the time of financing and in the future. For instance, it is possible that varying advertised terms may influence perceived monthly payment estimates and/or total financing cost estimates associated with varying vehicle purchase amounts, which may also influence consumers' acceptance of their loan requests, regret with one's financing decisions, and/or satisfaction with the deal offer. Furthermore, future research might consider how advertised terms influence consumer financial well-being and how such effects might also be moderated by individual difference variables such as financial constraint, materialism, or susceptibility to persuasion. As firms continue to promote longer financing terms in response to increasing automobile costs, and consumers increasingly finance purchases for longer terms, understanding the role of advertised terms in consumer borrowing decisions becomes even more important. With this research being the first to consider the role of advertised terms in consumer borrowing preferences, we are optimistic that future related research can provide additional insights that financial institutions, government agencies, and consumers can utilize to improve consumer financial decision making.

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Table 2.1

Path Analysis in Study 3

Regression	Path	Coeff.	SE	<i>t</i>	<i>p</i>
Internal Reference Term (mediator 1)				<i>df</i> = 228	
<i>X</i> (advertised term)	a ₁₁	23.20	1.98	11.73	<.001
<i>V</i> (financial literacy)	a ₁₂	0.60	0.36	1.67	.096
<i>X x V</i>	a ₁₃	0.88	0.72	1.22	.223
Constant	i ₁	56.71	0.99	57.36	<.001
Implicitly Recommended Term (mediator 2)				<i>df</i> = 228	
<i>X</i> (advertised term)	a ₂₁	27.02	2.55	10.58	.000
<i>V</i> (financial literacy)	a ₂₂	-0.41	0.47	-0.90	.368
<i>X x V</i>	a ₂₃	0.79	0.93	0.85	.396
Constant	i ₂	54.78	1.28	42.90	<.001
Appeal (mediator 3)				<i>df</i> = 228	
<i>X</i> (advertised term)	a ₃₁	-0.15	0.20	-0.73	.466
<i>V</i> (financial literacy)	a ₃₂	-0.05	0.04	-1.27	.206
<i>X x V</i>	a ₃₃	0.14	0.07	1.85	.066
Constant	i ₃	4.97	0.10	49.47	<.001
Affordability (mediator 4)				<i>df</i> = 228	
<i>X</i> (advertised term)	a ₄₁	0.30	0.18	1.67	.096
<i>V</i> (financial literacy)	a ₄₂	0.02	0.03	0.54	.590
<i>X x V</i>	a ₄₃	0.00	0.07	0.03	.977
Constant	i ₄	5.13	0.09	57.37	<.001
Desired Term (dependent variable)				<i>df</i> = 224	
<i>X</i> (advertised term)	c' ₁	9.27	2.44	3.79	<.001
<i>M1</i> (internal reference term)	b ₁₁	0.28	0.07	3.87	<.001
<i>M2</i> (implicitly recommended term)	b ₁₂	0.31	0.06	5.42	<.001
<i>M3</i> (appeal)	b ₁₃	1.16	0.92	1.26	.207
<i>M4</i> (affordable)	b ₁₄	-0.28	1.02	-0.27	.786
<i>V</i> (financial literacy)	c' ₂	-0.77	0.34	-2.24	.026
<i>X x V</i>	c' ₃	-0.81	0.68	-1.19	.234
Constant	i ₅	15.73	4.88	3.23	.001

Table 2.2

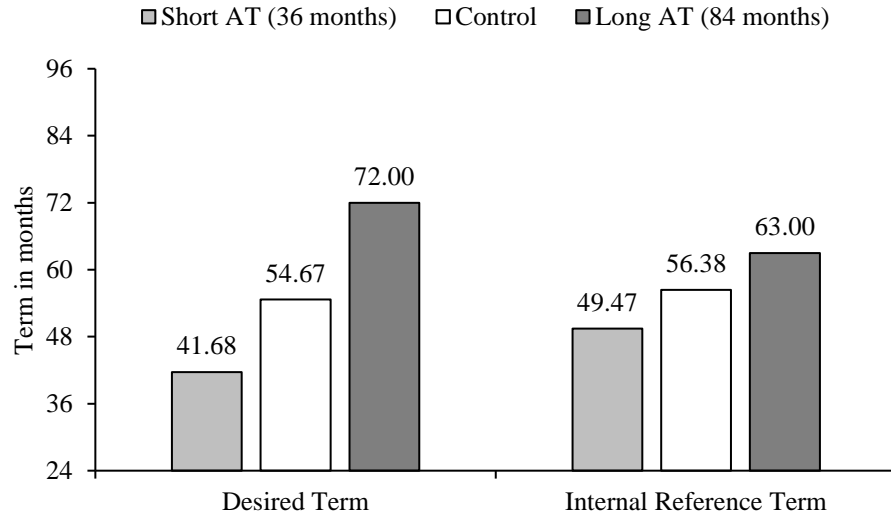
Direct and Conditional Indirect Effects (IEs) of the Advertised Term by Default Term Interaction in Study 4

Mediation Paths	Index of Moderated Mediation	95% Confidence Interval	Conditional Indirect Effects (IEs) of the Default Term (DEF)							
			Different DEF (60 months)				Same DEF			
IEs on Desired Term (DT)			IE	95% CI		IE	95% CI			
AT x DEF → <i>Internal Reference Term</i> → DT	3.81	[.36, 8.00]	9.43	[4.64, 14.63]		13.24	[6.81, 19.56]			
		90% CI		90% CI			90% CI			
AT x DEF → <i>Implicitly Recommended Term</i> → DT	2.81	[.20, 6.23]	4.58	[.37, 8.96]		7.39	[.62, 14.11]			
Direct Effect										
			Different DEF (60 months)				Same DEF			
			β	SE	t	p	β	SE	t	p
AT x DEF → DT			3.47	3.78	0.92	0.359	7.99	4.45	1.79	0.075

Notes: The index of moderated mediation is the test of moderated (or conditional) mediation for each of the separate mediation paths (Hayes 2013). The IEs are the indirect effects for the advertised term across the default term conditions. Advertised term indicates whether the term was short versus long ('1' if long; '0' if short) in the advertisement, while default term (DEF) indicates whether the DEF matched versus differed from the advertised term ('1' if same; '0' is different).

Figure 2.1

Effects of Advertised Terms in Study 1a.



Note: AT - Advertised Term.

Figure 2.2

Mediation in Study 1a

Short AT vs Control AT

Long AT vs. Control AT

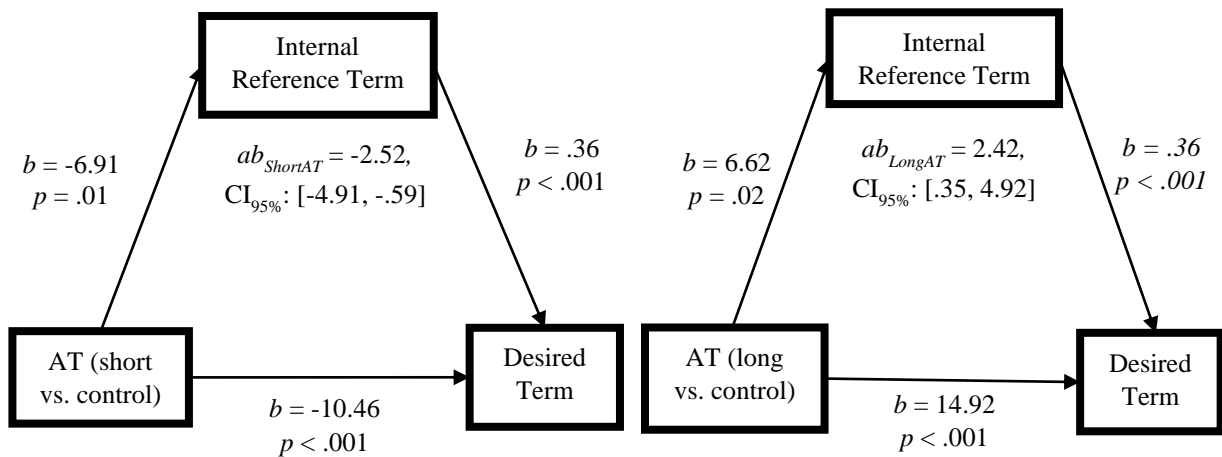
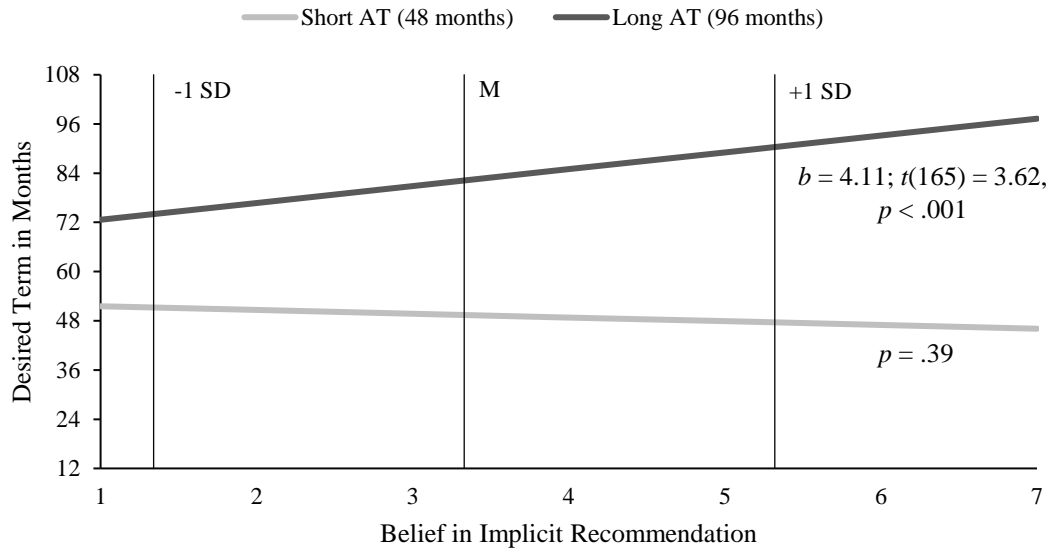


Figure 2.3

Effect of Advertised Terms Depends on Belief in Implicit Recommendation in Study 2.



Note: AT – Advertised Term.

Figure 2.4

Parallel Mediation in Study 3

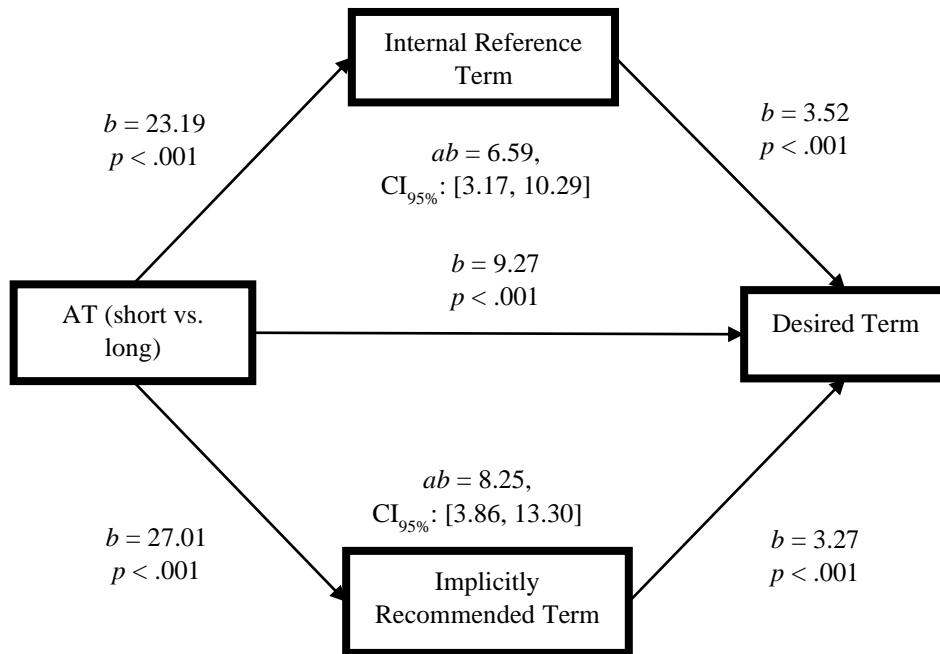
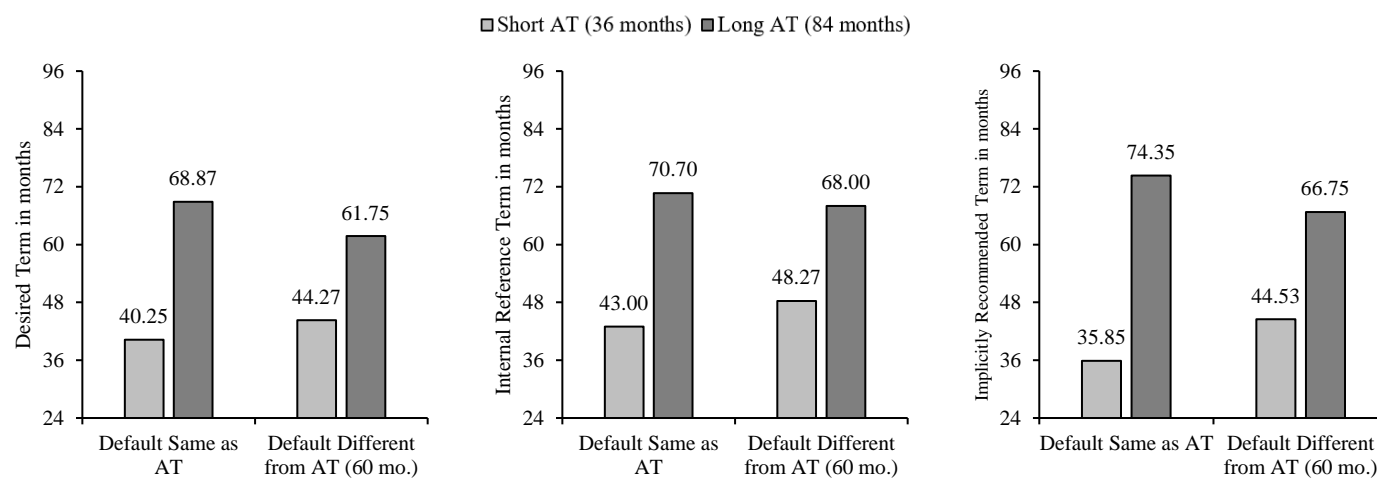


Figure 2.5

Effects of Advertised Terms Depends on Default Term in Study 4.



Note: AT - Advertised Term.

Appendix 2.1

Study Measures

Study 1a
<p>Desired Term</p> <p>1) For how many <u>months</u> would you like to take out the \$20,175 auto loan? 1 = 24, 2 = 36, 3 = 48, 4 = 60, 5 = 72, 6 = 84, 7 = 96</p> <p>Internal Reference Term</p> <p>1) Based on the car buying scenario you read, what do you think is the typical term (in months) for \$20,175 auto loans to buy brand new 4 door sedans? 1 = 24, 2 = 36, 3 = 48, 4 = 60, 5 = 72, 6 = 84, 7 = 96</p>
Study 1b
<p>Desired Term</p> <p>1) For how many <u>months</u> would you like to take out the \$20,175 auto loan? 1 = 24, 2 = 36, 3 = 48, 4 = 60, 5 = 72, 6 = 84, 7 = 96</p> <p>Internal Reference Term</p> <p>1) Based on the car buying scenario you read, what do you think is the typical term (in months) for \$20,175 auto loans to buy brand new 4 door sedans? 1 = 24, 2 = 36, 3 = 48, 4 = 60, 5 = 72, 6 = 84, 7 = 96</p>

Appendix 2.1 (Cont.)

Study 2

Desired Term

- 1) For how many months would you like to take out the \$31,990 recreation loan?
1 = 24, 2 = 36, 3 = 48, 4 = 60, 5 = 72, 6 = 84, 7 = 96, 8 = 108, 9 = 120

Bothersomeness (Otto et al. 2016; $\alpha = .96$)

- 1) How much of a bother was this decision for you?
- 2) How troubling was this decision for you?
- 3) How aggravating was this decision for you?
- 4) How irritating was this decision for you?
1 = Not much at all, 7 = Very much

Effort (McKenzie et al. 2006)

- 1) To what extent do you agree or disagree with the following questions? I requested the (piped in response)-month term because it would have been too much effort to come up with a different term.
1 = Strongly disagree, 7 = Strongly agree

Implicit Recommendation (McKenzie et al. 2006)

- 1) I requested the (piped in response)-month term because the dealer appeared to want me to.
1 = Strongly disagree, 7 = Strongly agree

Internal Reference Term

- 1) Based on the camper buying scenario you read, what do you think is the **typical term (in months)** for \$31,990 recreation loans to buy new tow behind campers?
1 = 12, 2 = 24, 3 = 36, 4 = 48, 5 = 60, 6 = 72, 7 = 84, 8 = 96, 9 = 108, 10 = 120, 11 = 132

Lay Rationalism (Hsee et al. 2015; $\alpha = .83$)

- 1) When making decisions, I like to analyze financial costs and benefits and resist the influence of my feelings.
- 2) When choosing between two options, one of which makes me feel better and the other better serves the goals I want to achieve, I choose the one that makes me feel better. (RC)
- 3) When making decisions, I think about what I want to achieve rather than how I feel.
- 4) When choosing between two options, one of which is financially superior and the other which "feels" better to me, I choose the one that is financially better.
- 5) When choosing between products, I rely on my gut feelings rather than on product specifications (numbers and objective descriptions). (RC)
- 6) When making decisions, I focus on objective facts rather than subjective feelings.
1 = Strongly disagree, 7 = Strongly agree

Appendix 2.1 (Cont.)

Study 2 (Cont.)
<p>Need for Cognitive Closure (Roets and Hiel 2011; $\alpha = .91$)</p> <ol style="list-style-type: none">1) I do not like situations that are uncertain.2) I dislike questions which could be answered in many different ways.3) I find that a well ordered life with regular hours suits my temperament.4) I feel uncomfortable when I do not understand the reason why an event occurred in my life.5) I feel irritated when one person disagrees with what everyone else in a group believes.6) I do not like to go into a situation without knowing what I can expect from it.7) When I have made a decision, I feel relieved.8) When I am confronted with a problem, I'm dying to reach a solution very quickly.9) I would quickly become impatient and irritated if I would not find a solution to a problem immediately.10) I do not like to be with people who are capable of unexpected actions.11) I dislike it when a person's statement could mean many different things.12) I find that establishing a consistent routine enables me to enjoy life more.13) I enjoy having a clear and structured mode of life.14) I do not usually consult many different opinions before forming my own view.15) I dislike unpredictable situations. <p>1 = Strongly disagree, 7 = Strongly agree</p>
Study 3
<p>Desired Term</p> <ol style="list-style-type: none">1) For how many <u>months</u> would you like to take out the \$20,175 auto loan? 1 = 24, 2 = 36, 3 = 48, 4 = 60, 5 = 72, 6 = 84, 7 = 96 <p>Internal Reference Term</p> <ol style="list-style-type: none">1) Based on the car buying scenario you read, what do you think is the typical term (in months) for \$20,175 auto loans to buy brand new 4 door sedans? 1 = 24, 2 = 36, 3 = 48, 4 = 60, 5 = 72, 6 = 84, 7 = 96 <p>Implicit Recommendation</p> <ol style="list-style-type: none">1) What term do you believe the dealer thinks is in your best interest?" 1 = 24, 2 = 36, 3 = 48, 4 = 60, 5 = 72, 6 = 84, 7 = 96

Appendix 2.1 (Cont.)

Study 3 (Cont.)
<p>13-Item Financial Literacy Measure: (Fernandes, Lynch, and Netemeyer 2014; Items 1 and 2: Lusardi and Mitchell (2011); Items 3, 4, 5, 10, 11, 12: van Rooij, Lusardi and Alessie (2011); Item 6: Agnew and Utkus (2005); Items 7 and 8: Hung, Meijer, Mihaly, Yoong (2009); Item 9: Lusardi (2010); Item 13: Lusardi and Tufano (2009); $\alpha = .79$) (<i>Correct responses in italics</i>)</p> <p>1) Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, would you be able to buy:</p> <ul style="list-style-type: none">• More than today with the money in this account• Exactly the same as today with the money in this account• <i>Less than today with the money in this account</i>• Don't know <p>2) Do you think that the following statement is true or false? "Bonds are normally riskier than stocks."</p> <p>True / <i>False</i> / Don't know</p> <p>3) Considering a long time period (for example, 10 or 20 years), which asset described below normally gives the highest return?</p> <p>Savings accounts / <i>Stocks</i> / Bonds / Don't know</p> <p>4) Normally, which asset described below displays the highest fluctuations over time?</p> <p>Savings accounts / <i>Stocks</i> / Bonds / Don't know</p> <p>5) When an investor spreads his money among different assets, does the risk of losing a lot of money:</p> <p>Increase / <i>Decrease</i> / Stays the same / Don't know</p> <p>6) Do you think that the following statement is true or false? "If you were to invest \$1,000 in a stock mutual fund, it would be possible to have less than \$1,000 when you withdraw your money."</p> <p>True / <i>False</i> / Don't know</p> <p>7) Do you think that the following statement is true or false? "A stock mutual fund combines the money of many investors to buy a variety of stocks."</p> <p>True / <i>False</i> / Don't know</p> <p>8) Do you think that the following statement is true or false? "After age 70 1/2, you have to withdraw at least some money from your 401(k) plan or IRA."</p> <p>True / <i>False</i> / It depends on the type of IRA and/or 401(k) plan / Don't know</p>

Appendix 2.1 (Cont.)

Study 3 (Cont.)

- 9) Do you think that the following statement is true or false? “A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.”

True / False / Don't know

- 10) Suppose you have \$100 in a savings account and the interest rate is 20% per year and you never withdraw money or interest payments. After 5 years, how much would you have in this account in total?

More than \$200 / Exactly \$200 / Less than \$200 / Don't know

- 11) Which of the following statements is correct?

- Once one invests in a mutual fund, one cannot withdraw the money in the first year
- *Mutual funds can invest in several assets, for example invest in both stocks and bonds*
- Mutual funds pay a guaranteed rate of return which depends on their past performance
- None of the above
- Don't know

- 12) Which of the following statements is correct? If somebody buys a bond of firm B:

- He owns a part of firm B
- *He has lent money to firm B*
- He is liable for firm B's debts
- None of the above
- Don't know

- 13) Suppose you owe \$3,000 on your credit card. You pay a minimum payment of \$30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?

- Less than 5 years
- Between 5 and 10 years
- Between 10 and 15 years
- *Never*
- Don't know

Appendix 2.1 (Cont.)

Study 4

Desired Term

- 1) For how many **months** would you like to take out the \$20,175 auto loan?
1 = 12, 2 = 24, 3 = 36, 4 = 48, 5 = 60, 6 = 72, 7 = 84

Internal Reference Term

- 1) Based on the car buying scenario you read, what do you think is the **typical term (in months)** for \$20,175 auto loans to buy brand new 4 door sedans?
1 = 24, 2 = 36, 3 = 48, 4 = 60, 5 = 72, 6 = 84, 7 = 96

Implicit Recommendation

- 1) What term do you believe the dealer thinks is in your best interest?"
1 = 24, 2 = 36, 3 = 48, 4 = 60, 5 = 72, 6 = 84, 7 = 96

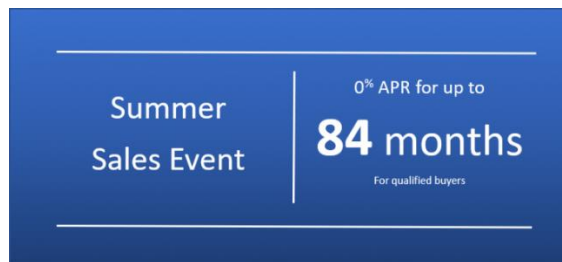
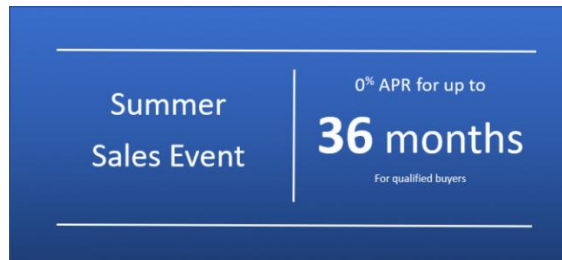
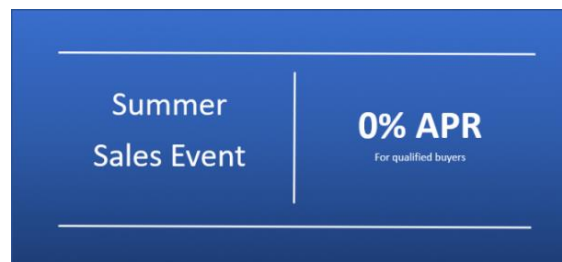
Appendix 2.2

Scenarios and Stimuli

S1a: The Effect of Advertised Term

Imagine that you are in the market for a new vehicle. After considering your options, you've decided to buy a **brand new 4 door sedan** with a purchase price of **\$20,175**. You do not have money for a down payment and will need to **take out an auto loan** for the full purchase price of **\$20,175**. Your current vehicle is worth \$3,000 and you owe \$3,000 on it, so it does not affect the financing.

On your way to the dealership to apply for an auto loan to buy the 4 door sedan, you see the following advertised **financing offer** from the same dealership selling you the sedan:

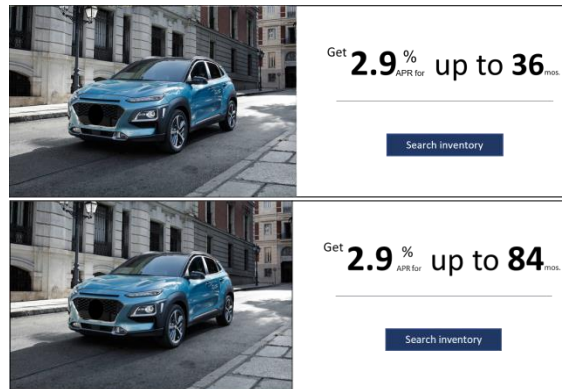


Appendix 2.2 (Cont.)

S1b: The Effect of Advertised Term (Full Information)

Now, imagine that you are in the market for a new vehicle. After considering your options, you've decided to buy a **brand new small SUV** with a purchase price of **\$26,415**. You do not have money for a down payment and will need to **take out an auto loan** for the full purchase price of **\$26,415**. Your current vehicle is worth \$3,000 and you owe \$3,000 on it, so it does not affect the financing.

On your way to the dealership to apply for an auto loan to buy the small SUV, you see the following **advertised financing offer** from the same dealership selling you the SUV.



Long AT options:

Term (months)	24	36	48	60	72	84	96
Interest Rate (APR)	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	3.9%
Monthly Payment	\$1,134	\$767	\$584	\$474	\$400	\$348	\$321
Total Finance Cost	\$805	\$1,198	\$1,594	\$1,993	\$2,397	\$2,804	\$4,377

Short AT options:

Term (months)	24	36	48	60	72	84	96
Interest Rate (APR)	2.9%	2.9%	3.9%	3.9%	3.9%	3.9%	3.9%
Monthly Payment	\$1,134	\$767	\$595	\$485	\$412	\$360	\$321
Total Finance Cost	\$805	\$1,198	\$2,157	\$2,702	\$3,254	\$3,812	\$4,377

Appendix 2.2 (Cont.)

S2: Implicit Recommendation as an Individual Difference



Imagine that you are in the market for a new camper. After considering your options, you've decided to buy a **brand new tow behind camper** with a purchase price of **\$31,990**. You do not have money for a down payment, nor do you currently have a camper to trade in. As a result, you will need to **take out a recreation loan** for the full purchase price of **\$31,990**. Note: taxes and fees cannot be financed. On your way to the RV dealership to apply for a recreation loan to buy the tow behind camper, you see the following **advertised financing offer** from the same dealership selling you the camper.

	Get 2.9% APR for up to 48 mos. Search inventory
	Get 2.9% APR for up to 96 mos. Search inventory

S3: Dual Mediation and Financial Knowledge & S4: Default Intervention

Imagine that you are in the market for a new vehicle. After considering your options, you've decided to buy a **brand new 4 door sedan** with a purchase price of **\$20,175**. You do not have money for a down payment and will need to **take out an auto loan** for the full purchase price of **\$20,175**. Your current vehicle is worth \$3,000 and you owe \$3,000 on it, so it does not affect the financing.

On your way to the dealership to apply for an auto loan to buy the 4 door sedan, you see the following advertised **financing offer** from the same dealership selling you the sedan:

	Get 2.9% APR for up to 36 mos. Search inventory
	Get 2.9% APR for up to 84 mos. Search inventory

Appendix 2.2 (Cont.)

Default Manipulations

Default Same – Short (36 Month) AT

For how many months would you like to take out the \$20,175 auto loan?

36 ▼

Default Same – Long (84 Month) AT

For how many months would you like to take out the \$20,175 auto loan?

84 ▼

Default Different

For how many months would you like to take out the \$20,175 auto loan?

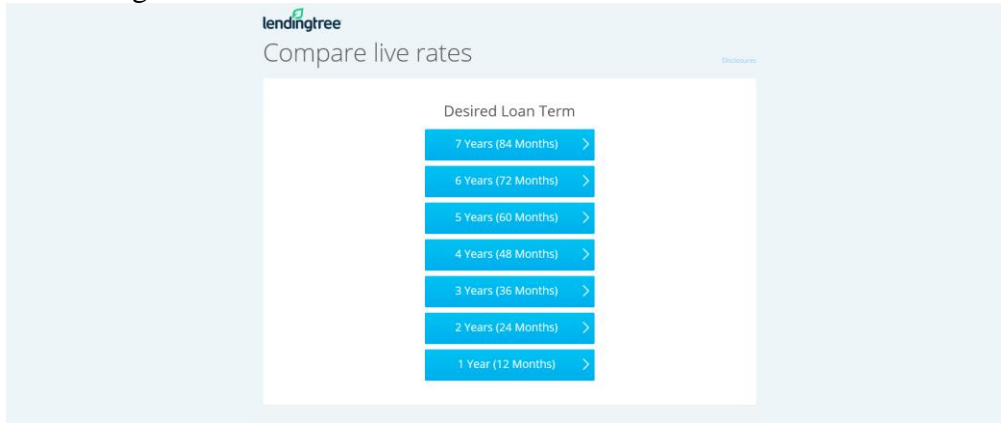
60 ▼

Appendix 2.3

Examples of Auto Loan Application Term Selection Formats

Lending Tree

<https://www.lendingtree.com/auto/>

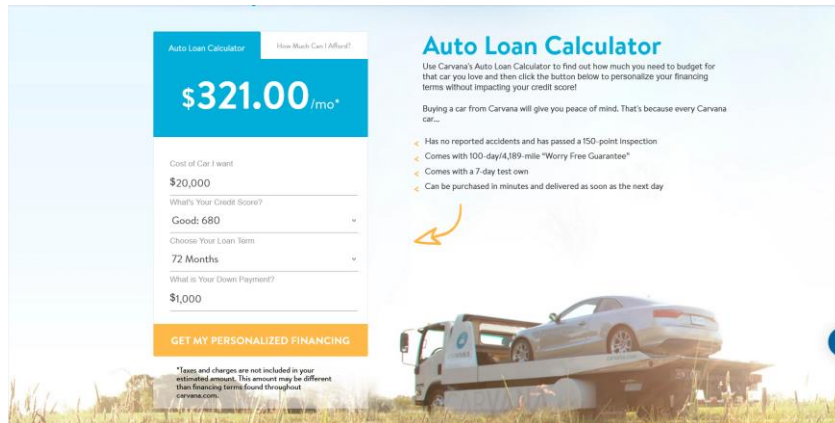


The screenshot shows the Lending Tree website's 'Compare live rates' page. A central white box titled 'Desired Loan Term' contains a vertical list of seven blue buttons, each with a loan term and a right-pointing arrow. The terms are: 7 Years (84 Months), 6 Years (72 Months), 5 Years (60 Months), 4 Years (48 Months), 3 Years (36 Months), 2 Years (24 Months), and 1 Year (12 Months). The Lending Tree logo and a 'Disclosures' link are visible at the top of the page.

Desired Loan Term	
7 Years (84 Months)	>
6 Years (72 Months)	>
5 Years (60 Months)	>
4 Years (48 Months)	>
3 Years (36 Months)	>
2 Years (24 Months)	>
1 Year (12 Months)	>

Carvana

<https://www.carvana.com/auto-loan-calculator>



The screenshot shows the Carvana 'Auto Loan Calculator' page. On the left, a form with input fields shows: 'Cost of Car I want' at \$20,000, 'What's Your Credit Score?' at Good: 680, 'Choose Your Loan Term' at 72 Months, and 'What is Your Down Payment?' at \$1,000. An orange button below the form says 'GET MY PERSONALIZED FINANCING'. On the right, the calculator displays a result of '\$321.00 /mo*'. Below the result, a list of benefits is shown with checkmarks: 'Has no reported accidents and has passed a 150-point inspection', 'Comes with 100-day/4,189-mile "Worry Free Guarantee"', 'Comes with a 7-day test own', and 'Can be purchased in minutes and delivered as soon as the next day'. The background features a car on a delivery truck.

Auto Loan Calculator

Use Carvana's Auto Loan Calculator to find out how much you need to budget for that car you love and then click the button below to personalize your financing terms without impacting your credit score!

Buying a car from Carvana will give you peace of mind. That's because every Carvana car...

- Has no reported accidents and has passed a 150-point inspection
- Comes with 100-day/4,189-mile "Worry Free Guarantee"
- Comes with a 7-day test own
- Can be purchased in minutes and delivered as soon as the next day

\$321.00 /mo*

Cost of Car I want: \$20,000

What's Your Credit Score? Good: 680

Choose Your Loan Term: 72 Months

What is Your Down Payment? \$1,000

GET MY PERSONALIZED FINANCING

*Fees and charges are not included in your estimated amount. This amount may be different than financing terms found throughout carvana.com

Appendix 2.3 (Cont.)

Toyota Financial Services

https://www.toyotafinancial.com/us/en/planning_tools/apply_for_credit.html

The screenshot shows the Toyota Financial Services credit application form. At the top, the Toyota Financial Services logo is on the left, and 'Log In' and 'Register' links are on the right. Below the logo, the phone number 'P: (479) 695-7600 | F: (479) 751-2726' is displayed. The main form area is divided into two columns. The left column contains a radio button labeled 'STEVE LANDERS TOYOTA NWA' with a dropdown menu showing terms: '24 months', '36 months', '48 months', '60 months', and '72 months'. Below this is a 'VEHICLE TRADE-IN' section with a toggle switch. The right column has a 'SEARCH IN ANOTHER ZIP CODE' section with a text input field labeled 'Enter ZIP Code'. Below that is a 'DOWN PAYMENT' section with a text input field. A red 'Next' button is located at the bottom right of the form.

TOYOTA
Financial Services

P: (479) 695-7600 | F: (479) 751-2726

Log In Register

SEARCH IN ANOTHER ZIP CODE
Enter ZIP Code

STEVE LANDERS TOYOTA NWA

24 months
36 months
48 months
60 months
72 months

VEHICLE TRADE-IN

DOWN PAYMENT

Next

CONCLUSION

Recapitulation of Findings and Contributions

Firms and government agencies increasingly rely on behavioral science to not only understand consumer financial decision making, but also inform strategic marketing initiatives to help improve consumer financial decision making. Such efforts come in response to calls by the Obama administrations to utilize behavioral insights in public policy (Association for Psychological Science 2015), as well as a growing demand for marketing to play a more impactful role and help to improve society rather than take advantage of consumers (Journal of Marketing 2022). With regards to consumer borrowing, consumers continue to demonstrate a willingness to accrue more debt often with increased repayment risk as evidenced by their acceptance of longer loan terms. Such behaviors are of growing concern as they set consumers up to be in disadvantaged positions when making financial decision in the future. For instance, through increased acceptance of debt, consumers reduce their borrowing capacity in the future and may be privy to less favorable financing parameters as a result.

Recent research has found that relatively minor changes to minimum payments formats provided on credit card statements can increase credit card repayment amounts (Salisbury and Zhao 2019; Salisbury 2014). Such findings have informed public policy and facilitated the requirement of additional information on credit card statements (FTC 2009; Salisbury 2014). Specifically, credit card statements now include repayment amounts needed to repay credit card debt across different time periods. Such insights are beneficial and provide consumers actionable information they can use to make debt repayment decisions at the time of making payments. However, these insights only apply after consumers have already acquired credit card debt.

This research contributes to our understanding of consumer borrowing by evaluating how consumers generate their financing requests *prior to* attaining debt. Furthermore, this research considers the role of firm interventions and communications in the generation of such financing parameters. Thus, this research evaluates upstream factors that influence consumer borrowing decisions and provides insights into why consumers may be more accepting of higher debt amounts and longer repayment terms to being with.

Essay 1 evaluates the effect of loan application formats on the amounts consumers request to borrow. Across a series of five studies, this research demonstrates that when loan amounts are elicited, consumers think of and request the cost of the expenditure they seek to finance. When monthly payments are elicited, however, consumers selectively recruit their monthly budget slack to construct and then request monthly payments they perceive to be affordable. For lower cost loans with a given term and interest rate, the monthly payment (vs. loan amount) format results in larger principal requests. This effect reverses for higher cost acquisitions because individuals' budget slack caps out around \$500 per month. Thus, this essay extends preference construction, scale compatibility, and selective accessibility research streams by considering the impact of loan application formats on consumer financial decision making. In so doing, findings from the first essay not only bring attention to the effect of a seemingly minor intervention on consumers' generation of loan requests, but also show that using the monthly payment elicitation can have conflicting implications for consumers and finance managers. For instance, findings from the first essay reveal a willingness for consumers to accept loans in excess of what they need to complete purchases, which is to the benefit of financial institutions that can generate larger loan volumes while servicing fewer loans. These effects will be of interest to public policy makers who work to ensure financial institutions help rather than hinder

consumer financial decision making. Further, by understanding the role of budget slack in request amounts, findings from the first essay indicate that financial service providers can better target their consumers with more effective financing promotions.

Essay 2 evaluates how term preferences are constructed and considers the role of advertised terms, an external environmental cue frequently promoted by lenders, in consumer borrowing decisions. Specifically, essay 2 demonstrates that consumers' term preferences are influenced by advertised terms such that consumers desire longer (vs. shorter) terms after observing longer (vs. shorter) advertised terms via a dual process that relies on both the assimilation of advertised terms into one's internal reference term, as well as the belief that advertised terms are recommended terms by the dealer. This effect does not depend on consumers' level of financial literacy. Furthermore, applying research on defaults (Goswami and Urminsky 2016; Johnson and Goldstein 2003; Madrian and Shea 2001; McKenzie, Liersch, and Finkelstein 2006), adding a shorter default loan term to consumer loan applications attenuates the effect of longer advertised terms on consumer loan term preferences. Thus, financial service firms can not only promote longer terms to attract consumers but also nudge consumers towards less risky loan options through the use of a shorter term default in the loan application. These findings support future research that considers how managerially relevant interventions can influence consumer financial decision making during the loan application process.

Directions for Future Research

In essay 1, although the experimental designs and loan purposes of each study were designed reflect the real-world environment of consumer borrowing (i.e., providing some basic

information such as the loan purpose up front, and studying common expenditures financed by personal loans such as a wedding, vacation, home remodel, or major purchase), to isolate the effect of the two specific loan application formats, term and interest rate were held constant. The effect will vary across different combinations of terms and interest rates offered by financial institutions. In future research, these loan parameters could be varied to evaluate how this effect emerges across different cost levels. Even more compellingly, these loan parameters could be endogenized in future research; since these parameters can be modified according to consumers' preferences and financial situations (e.g., interest rate is also a function of creditworthiness), this suggests that the effect of loan application format may be heterogeneous across different consumer segments if more of the financing information is allowed to vary. Additionally, this research focused on situations where consumers already decided which purchase they were going to finance. Future research might consider the pre-approval phase where consumers do not yet have a specific purchase in mind. It is unclear what role different application formats would play in these situations and whether purchase decisions differ between formats used.

In essay 2, to isolate the effect of advertised terms, the financing amount was held constant. The effect may vary across different financing amounts, as well as levels of consumers' financial constraints. In future research, these considerations could be varied and/or measured to explore potential heterogeneity. Additionally, in reality, only a subset of consumers actually qualifies for the special terms advertised by financial institutions. Thus, future research could evaluate what terms consumers desire when the terms they qualify for differ from those advertised. This research also focused on situations where consumers already decided which purchase they were going to finance. Future research on term preferences might also consider the

pre-approval phase where consumers do not yet have a specific purchase in mind and explore how these terms influence information search and consideration of alternative purchases.

Evaluations of additional perceptions, attitudes, and outcomes potentially influenced by varying advertised terms and even interest rates are also beneficial to develop a broader understanding of how advertised terms affect consumer borrowing decisions both at the time of financing and in the future. For instance, it is possible that varying advertised terms may influence perceived monthly payment estimates and/or total financing cost estimates associated with varying vehicle purchase amounts, which may also influence consumers' acceptance of their loan requests, regret with one's financing decisions, and/or satisfaction with the deal offer. Furthermore, future research might consider how advertised terms influence consumer financial well-being and how such effects might also be moderated by individual difference variables such as financial constraint, materialism, or perceptibility to persuasion.

Lastly, future research can be conducted to further our understanding of the consequences of using monthly payment versus loan amount formats in consumer loan applications as well as differing advertised terms in advertised financing offers. For instance, future research might evaluate any possible financial stress associated with monthly payments that exceed one's budget slack when the loan amount format is used at the time of financing, and/or shorter versus longer repayment terms. Furthermore, consumers often make significant financial decisions based on present day financial capabilities, yet debt repayments extend well into the future. Future research might include a longitudinal approach that evaluates consumers' repayment abilities for the duration of requested loan terms.

Conclusion

In conclusion, this dissertation provides theoretical and conceptual frameworks and empirical evidence of the effects of managerially relevant interventions and firm communications on consumer borrowing preferences. The results have timely and clear implications for consumer researchers interested in consumer borrowing preferences, consumers themselves, public policy makers, and financial service providers across various industries. Furthermore, this dissertation draws attention to oft overlooked factors of the consumer loan application process and provides actionable and extremely affordable steps firms can implement to nudge consumers towards improved financial decision making. With this research being the first to consider the role of loan application formats and advertised terms in consumer borrowing preferences, I am optimistic that future related research can provide additional insights that financial institutions, government agencies, academics, and consumers can utilize to improve consumer financial decision making.

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GENERAL APPENDIX



To: Alicia Mari Johnson
BELL 4188

From: Douglas James Adams, Chair
IRB Committee

Date: 09/27/2019

Action: Exemption Granted

Action Date: 09/27/2019

Protocol #: 1909216486

Study Title: How service encounters affect consumer financial decisions.

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or irb@uark.edu.

cc: Daniel Villanova, Investigator
Ronn J Smith, Investigator

To: Alicia Mari Johnson
BELL 4188

From: Douglas James Adams, Chair
IRB Committee

Date: 04/30/2019

Action: Expedited Approval

Action Date: 04/18/2019

Protocol #: 1904189934

Study Title: The role of financial service provider interactions in consumer financial decisions

Expiration Date: 04/17/2020

Last Approval Date:

The above-referenced protocol has been approved following expedited review by the IRB Committee that oversees research with human subjects.

If the research involves collaboration with another institution then the research cannot commence until the Committee receives written notification of approval from the collaborating institution's IRB.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date.

Protocols are approved for a maximum period of one year. You may not continue any research activity beyond the expiration date without Committee approval. Please submit continuation requests early enough to allow sufficient time for review. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study closure.

Adverse Events: Any serious or unexpected adverse event must be reported to the IRB Committee within 48 hours. All other adverse events should be reported within 10 working days.

Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, study personnel, or number of participants, please submit an amendment to the IRB. All changes must be approved by the IRB Committee before they can be initiated.

You must maintain a research file for at least 3 years after completion of the study. This file should include all correspondence with the IRB Committee, original signed consent forms, and study data.

cc: Daniel Villanova, Investigator
Ronn J Smith, Investigator