

PSYCHOLOGICAL OWNERSHIP OF (BORROWED) MONEY

Eesha Sharma*, Dartmouth College

Stephanie Tully*, Stanford University

Cynthia Cryder, Washington University in St. Louis

Eesha Sharma is Associate Professor of Business Administration at the Tuck School of Business at Dartmouth College, 100 Tuck Hall, Hanover, NH 03755, 603-646-2806,

Eesha.sharma@tuck.dartmouth.edu. Stephanie Tully is Assistant Professor of Marketing at the Graduate School of Business, Stanford University, 655 Knight Way, Stanford, CA 94305,

smtully@stanford.edu. Cynthia Cryder is Associate Professor of Marketing at the Olin Business School at Washington University in St. Louis, Campus Box 1133, One Brookings Drive, St.

Louis, MO 63130, 314

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Abstract

The current research introduces the concept of *psychological ownership of money*, the notion that consumers perceive money in differing degrees as their own. We suggest that this concept is particularly important in the realm of consumer debt, where consumers use borrowed money. We show that individuals naturally vary in the extent to which they experience psychological ownership of money, and variation on this dimension predicts willingness to borrow for discretionary purchases. Moreover, this construct is distinct from other individual-level factors such as debt aversion, financial literacy, income, intertemporal discounting, materialism, propensity to plan, and self-control, and it predicts willingness to borrow above and beyond these factors. We further show that psychological ownership of borrowed money is shaped by context. Specifically, we document systematic differences in psychological ownership across debt types that can be used for discretionary purchases, and show that these differences explain consumers' interest in borrowing. Finally, we find that differences in psychological ownership manifest in online search behavior, and can be leveraged to predict patterns of online search behavior for different debt types.

Keywords: consumer finances, debt, mental accounting, attitudes, psychological ownership

Consumer debt is at an all-time high, with levels of debt exceeding those preceding the 2008 financial crisis (Decambre 2019). While some debt can be beneficial to consumers (e.g., buying a home, providing necessities), debt is also often used to fund discretionary purchases. Indeed, American consumers identify discretionary spending as the most common category of spending contributing to their outstanding credit card debt (Leonhardt 2019). Decisions to fund discretionary purchases are particularly important to understand as consumers have a great deal of control over these decisions, and debt for these purchases can prove burdensome. For instance, one out of eleven Americans who have credit card debt believe they will never be debt free (Tsosie and El Issa 2018), and the average American cannot generate \$400 to cover an emergency expense (Federal Reserve 2019). The current research therefore aims to understand consumers' decisions to use debt that can be used to finance discretionary purchases. In doing so, we introduce an important new construct that differs across individuals and contexts, predicts which consumers are most likely to borrow, and explains why some forms of borrowing may be more attractive than others.

Specifically, we present the concept of *psychological ownership of money* to describe consumers' relationship to and connection with money. Psychological ownership of money refers to the degree to which consumers view money as "theirs." This concept is of particular importance in the context of borrowing. Although all borrowed money is lent from another entity and must be repaid, we propose that consumers *feel* that these funds are their own money to varying degrees. Some consumers might feel as if borrowed money belongs entirely to the lender, whereas other consumers might feel as if borrowed money is entirely their own, potentially increasing their willingness to take on debt and spend it freely.

Our objective in this research is to introduce the construct of psychological ownership of borrowed money, document individual and contextual variation on this construct, and examine potential consequences such as willingness to borrow and online search behavior. Across eight studies, and using multiple measures of psychological ownership, we show that consumers experience differing degrees of psychological ownership towards borrowed money. We show that these feelings are distinct from other individual-level factors such as debt aversion, financial literacy, income, intertemporal discount rates, materialism, propensity to plan, and self-control. Moreover, psychological ownership predicts proclivity towards incurring and repaying debt over and above these other important factors. We further demonstrate that psychological ownership of borrowed money is shaped by contextual factors. Specifically, psychological ownership varies across debt types and predicts differences in consumers' desire to incur and repay debt, even when debt types are structurally similar. In addition, we find that psychological ownership is malleable, and that decreasing consumers' sense of psychological ownership towards available financing curbs interest in borrowing. Finally, we show that psychological ownership of borrowed money manifests in online search patterns in ways that can be leveraged to help predict actual online searches for different financing options. A final discussion explores potential antecedents of psychological ownership and how this novel construct may aid in understanding previous findings.

THEORETICAL DEVELOPMENT

Debt refers to money that is borrowed and must be repaid. Debt allows consumers greater financial flexibility when facing liquidity constraints, yet, excessive consumer debt can pose

serious challenges to consumers' financial health and psychological wellbeing (Brown, Taylor, and Price 2005; Sweet et al. 2013) as well as to the economy as a whole (Mian and Sufi 2015). Such consequences highlight the importance of understanding determinants of consumers' willingness to borrow.

Existing research on consumer debt has examined a number of factors that influence borrowing. For example, consumer characteristics such as age and income predict debt incurrence (Kim and DeVaney 2001; Zhu and Meeks 1994), and structural features of financing options (e.g., total amount, interest rate, duration) can influence debt preferences as well (e.g., Gross and Souleles 2002; Kim and DeVaney 2001; Soman and Cheema 2002).

Aside from such objective factors, research has shown that subjective assessments of monetary factors can matter for decision making just as much as, if not more than, objective factors (see work on subjective wealth, e.g., Piff et al. 2010; Sharma and Alter 2012; Sussman and Shafir 2012; Tully, Hershfield, and Meyvis 2015). A notable example within the literature on consumer borrowing is debt aversion, whereby greater debt aversion reduces willingness to borrow (Almenberg et al. 2019; Prelec and Loewenstein 1998). Notably, much of this research focuses on predicting overall debt levels, with less research focused on understanding discretionary borrowing in particular (for exception see Tully and Sharma 2018). In the current work, we aim to increase understanding of such debt decisions, and suggest that examining psychological perceptions of available financing may provide novel insights into consumers' borrowing decisions.

Psychological Ownership

The focus of the current research is to introduce the concept of *psychological ownership of money*, and examine its role in the psychology of borrowing. Prior research has defined

psychological ownership, in general, as the extent to which someone feels a given target is theirs and belongs to them (Pierce, Kostova, & Dirks, 2001). The vast majority of research on psychological ownership exists within the management literature, and suggests that people can experience psychological ownership towards organizations (e.g., Pierce, Kostova, & Dirks, 2001). It has also been examined, to a lesser extent, in terms of feelings towards possessions (Shu and Peck, 2011).

In the current work, we suggest that psychological ownership can be felt towards one's monetary resources, and that such feelings are of particular interest in the case of borrowed money where money inherently belongs to another entity. We propose that consumers' perceptions of psychological ownership toward borrowed money vary along a continuum that ranges from a consumer feeling like borrowed money is entirely their own money at one end of the continuum, to feeling like borrowed money is entirely not their own money at the other end of the continuum. See Figure 1 for a visual depiction.

For example, imagine that two consumers each receive a line of credit worth \$1000. One consumer might view those funds as belonging entirely to the bank that lent them, making her feel that she has only temporary access to those funds until they must inevitably be repaid. By contrast, the second consumer might view those same funds as entirely his own, perhaps even feeling that he is accessing his own future earnings by using the line of credit.

Although borrowed money, by definition, belongs to another entity, there are multiple reasons why consumers might feel a sense of personal ownership towards it. For instance, research has shown that consumers use their credit limit as a signal of their future earnings potential (Soman and Cheema 2002); thus, consumers may view available financing as a means of accessing their future earnings. In addition, once consumers borrow, they often have

autonomy to spend the funds, and autonomy over a given target has been shown to influence psychological ownership in other domains (e.g., Liu et. al, 2011; Pierce, O'driscoll, and Coghlan 2004). Further, one reason people feel psychological ownership over their possessions is because those possessions help produce desired outcomes (Pierce, Kostova, and Dirks 2003). Thus, to the extent that borrowed money helps facilitate desired consumption outcomes, consumers may be likely to experience psychological ownership over those funds.

To summarize, there are several reasons why consumers might feel that borrowed money is their own. The current work examines the existence such feelings, and how such feelings might influence borrowing decisions.

Psychological Ownership and Willingness to Borrow

In the current research, we propose that psychological ownership influences willingness to incur debt. Previous research has shown that indebtedness is an aversive state, and that people view obligations as unfavorable and burdensome (Goei, Lindsey, Boster, Skalski, and Bowman, 2003; Prelec and Loewenstein 1998). Indeed, feeling obligated can reduce one's sense of perceived autonomy and evoke unpleasant psychological and physiological responses (Goei and Boster 2005; Greenberg and Shapiro 1971). To the extent that feelings of psychological ownership reduce one's sense of indebtedness, greater psychological ownership should increase the inclination to use borrowed funds. Analogously, the less that consumers experience psychological ownership over borrowed funds, the less inclined they should be to use those funds. Consequently, we hypothesize that across-person differences in the degree to which consumers view borrowed money as their own will predict willingness to borrow.

As part of this investigation, we also acknowledge that consumers frequently have multiple financing options available to them. Recent technological innovations have led to

greater variety of financing options for consumers, including increased point-of-sale lending and peer-to-peer lending (Filak 2016; Kline 2018). Moreover, not only have the variety and quantity of financing options increased, but many of these options provide simpler borrowing procedures and faster decision times than traditional forms of lending (Wunderlich 2015). In short, consumers have unprecedented access to available financing in a variety of forms. An important question, then, is whether psychological ownership varies across financing types. As the current investigation aims to explore debt incurred for discretionary purposes (in contrast to debt incurred for homes, cars, or education), we examine potential differences across two broad categories of debt that can be used to finance discretionary purchases: credit and loans. We document a systematic pattern whereby consumers perceive greater psychological ownership of money in the form of credit compared to loans. These differences persist when the debt types are structurally identical, and help to explain differences in willingness to borrow across these debt types.

The remainder of this article is organized as follows. We first investigate individual variation in psychological ownership of borrowed money (studies 1a-1b). We show that consumers differ in the extent to which they feel psychological ownership of borrowed money, and find that these differences predict interest in available financing offers over and above differences in debt aversion, financial literacy, income, intertemporal discount rates, materialism, propensity to plan, and self-control. Next, we investigate potential contextual influences on psychological ownership and show that psychological ownership perceptions systematically differ by debt type (studies 2, 3a, and 3b), and can explain differential interest across debt types (studies 4 and 5). Finally, we show that psychological ownership manifests in online search behavior and can predict consumers' actual search behavior for different debt types (study 6).

Having documented psychological ownership of borrowed money as a distinct and consequential factor, we conclude with implications for research and practice.

*STUDY 1A: NATURAL VARIATION IN PSYCHOLOGICAL OWNERSHIP AND INTEREST IN
APPLYING FOR CREDIT CARD FINANCING*

Study 1a explored variation in individuals' perceptions of psychological ownership of borrowed money, and examined the relationship between this variation and consumers' desire to apply for a financing offer. We also investigated whether psychological ownership predicts consumers' concern about repaying borrowed funds. In addition, we sought to examine the predictive power of psychological ownership relative to other factors that may influence debt decisions, such as debt aversion, intertemporal discount rates, income, financial literacy, propensity to plan, and self-control.

In study 1a, we used a real advertisement for a recently-released Amazon credit card. We expected greater psychological ownership of borrowed money to predict greater interest in applying for the offer and lower concern about repaying any borrowed funds.

Method

This study was pre-registered on As Predicted (<http://aspredicted.org/blind.php?x=ni2c56>). Participants were 205 individuals ($M_{\text{age}} = 33.53$, $SD = 19.79$, 52.7% females) from Prolific who completed this study in exchange for monetary compensation.

First, participants viewed an advertisement for a new Amazon credit card (see Figure 2 for stimulus). They were asked to review the offer carefully, and were informed that they would

be asked questions about it. Next, participants indicated how interested they were in applying for the credit card using a nine-point scale (1 = not at all interested, 9 = very interested). Then, participants responded to a question regarding their repayment concern using a nine-point scale: “If you spent using this credit card, how concerned would you be about repaying it in a timely manner?” (1 = a little concerned, 9 = extremely concerned).

To measure psychological ownership of borrowed money, we asked participants to indicate their responses to five items using nine-point scales: (1) “I would feel like this is my money” (1 = completely disagree, 9 = completely agree); (2) “Spending this money would feel like accessing my own money early” (1 = completely disagree, 9 = completely agree); (3) “Spending this money would feel like spending money that's not mine to spend (1 = completely disagree, 9 = completely agree; reverse-scored)”; (4) “To what extent would this money feel like money to be repaid versus my money to spend?” (1 = feels more like money to be repaid, 9 = feels more like my money to spend); (5) “To what extent would spending this money feel like using borrowed money versus your money?” (1 = more like borrowed money, 9 = more like my money).

To ensure that differences in psychological ownership were not due to differences in participants’ objective understanding of whether money from a credit card must be repaid, we asked participants: (1) “Would money that you spend from this credit card have to be repaid?” (Yes / No / Not sure) and (2) “Would money that you spent from the credit card, and don't repay quickly, accrue interest charges?” (Yes / No / Not sure).

We next administered several individual-level questions. To measure debt aversion, we used a single measure that has been shown to negatively predict debt incurrence: “Do you feel uncomfortable having debt?” (Yes, No, Do not know, Do not want to answer; coded such that

yes = 1, otherwise = 0; Almenberg et al. 2019). In addition, we included the propensity to plan for money—short run scale and the propensity to plan for money—long run scale (Lynch et. al, 2010), a 13-item self-control scale (Tangney, Baumeister, and Boone 2004), three financial literacy questions (Lusardi and Mitchell 2011), and a six-item materialism scale (Richins 2004). We also included an intertemporal choice titration task in which participants made a series of fifteen choices involving getting \$30 now and \$X in 45 days (where X ranged from \$30 to \$60) to calculate participants' intertemporal discount rates. Responses to the titration task were converted into a discount rate using the hyperbolic model, which has been found to effectively fit descriptive data (Mazur, 1987; Hardisty et. al, 2013). This choice method has been shown to better predict real world consequences compared to other discounting measures (Hardisty et. al, 2013).

Finally, participants provided their gender, age, income, and education. For exploratory purposes, we also asked them to indicate whether they currently have a revolving balance on their credit card. Results for this exploratory measure are included in the Web Appendix.

Results

Objective understanding of a credit card. The majority of participants (96%) understood that money spent with a credit card needs to be repaid, and 91% understood that money that was not repaid quickly would accrue interest charges.

Psychological ownership. The five questions assessing psychological ownership of borrowed money loaded onto a single factor and provided reliable internal consistency (Cronbach's $\alpha = .85$). Thus, the five items were combined into a single psychological ownership of borrowed money index, with higher scores indicating greater psychological ownership of

borrowed money. Participants' scores on this index ranged from 1 to 9, with an average value of 3.72 (SD = 2.08).

Interest in financing. We regressed interest in applying for the credit card on psychological ownership of borrowed money. As predicted, greater psychological ownership of borrowed money predicted higher interest in applying for the offer, $B = .48$, $t(204) = 6.75$, $p < .001$.

We next explored the relationship between participants' feelings of psychological ownership toward the credit card funding and the other potential predictors of debt incurrence (i.e., debt aversion, intertemporal discounting, financial literacy, income, materialism, planning for the long-term, planning for the short-term, and self-control). Psychological ownership was negatively correlated with planning for the short-term ($r = -.19$, $p = .008$) and positively correlated with materialism ($r = .15$, $p = .034$). None of the other constructs were significantly related to psychological ownership of borrowed money. See Appendix A for correlations among all variables.

To reiterate, we collected the eight individual-level variables to explore the unique predictive power of psychological ownership beyond established measures that could possibly predict debt uptake. Since we did not have theoretical predictions about the order of the eight measured constructs, we conducted a stepwise-hierarchical regression on interest in applying for the credit card in which we entered the eight constructs together in a first block and entered psychological ownership of borrowed money in a second block (Cohen et. al, 2003; pg. 161). Doing so allowed the model to identify the factors offering predictive value among all the factors entered. The first block identified participants' discount rate, debt aversion, and materialism as predictors of interest in applying for the credit card, $R^2 = .085$. Importantly, the second block

revealed that psychological ownership of borrowed money significantly increased the predictive ability of the model as indicated by a significant R^2 change, $R^2 = .256$, $F(1, 199) = 45.70$, $p < .001$. See Appendix B for full regression results.

Repayment concern. We next regressed repayment concern on psychological ownership of borrowed money. Greater psychological ownership of borrowed money predicted reduced repayment concern, $B = -.27$, $t(204) = -2.25$, $p = .026$. We next explored whether psychological ownership provided additional predictive ability beyond the other established constructs measured. To do so, we conducted a stepwise hierarchical regression using the same method used for interest in applying for the financing offer. Block one yielded only one predictor, propensity to plan for the short run, $R^2 = .043$. Importantly, the second block identified psychological ownership of borrowed money as adding significant predictive ability as indicated by a significant R^2 change, $R^2 = .067$, $F(1, 201) = 5.08$, $p = .025$. See again Appendix B for full regression results.

To summarize, in study 1a we demonstrated that consumers naturally vary in the extent to which they experience psychological ownership over money that can be borrowed with a credit card. These perceptions could not be explained by variation in objective understanding of ownership, as nearly all participants understood that money available on the credit card would need to be repaid. Further, variation in psychological ownership of borrowed money predicted interest in applying for a new credit card as well as repayment concern. In addition, the predictive ability of psychological ownership of borrowed money emerged over and above the predictive ability of the other established constructs we measured.

*STUDY 1B: GENERAL MEASURES OF PSYCHOLOGICAL OWNERSHIP OF BORROWED
MONEY*

Study 1b built on the findings from Study 1a in two ways. First, we aimed to replicate the results from Study 1a with a financing offer for a different debt type: a personal loan. Second, we considered the possibility that the unique predictive ability of psychological ownership resulted in part because of how the measures were administered. Specifically, the psychological ownership measures used in Study 1a were specific to the borrowing offer participants viewed, whereas the other constructs measured were more general in nature. Thus, in Study 1b, we aimed to replicate the results from Study 1a using psychological ownership measures that did not refer to feelings of psychological ownership towards the specific funds available through the financing offer. Instead, we measured these feelings towards borrowed money more generally and used a shortened 3-item scale.

Method

This study was pre-registered on As Predicted (<https://aspredicted.org/blind.php?x=h39m2i>). Participants were 203 individuals ($M_{\text{age}} = 33.04$, $SD = 8.64$, 45.8% females) on MTurk who completed this study in exchange for monetary compensation.

Study 1b used a real American Express personal loan advertisement (see again Figure 2). The procedure for Study 1b was the same as that described in Study 1a with the following exceptions: First, participants provided their psychological ownership perceptions using a shorter, more general 3-item psychological ownership of borrowed money scale. We used the first 3 measures described in Study 1a which had the advantage of being on the same scale: (1)

“Borrowed money feels like my money”; (2) “Spending borrowed money feels like accessing my own money early”; and (3) “Spending borrowed money feels like spending money that's NOT mine to spend” (nine-point scales; 1 = completely disagree, 9 = completely agree; item 3 was reverse-scored). For exploratory purposes, in addition to asking about whether participants had a revolving balance on a credit card, we asked whether they had a line of credit (other than a credit card), a personal loan, a payday loan, or any other type of debt. We also asked participants to estimate the amount of debt they had for each borrowing form they indicated having. Results for these exploratory measures are included in the Web Appendix.

Results

Objective understanding of a personal loan. The majority of participants (97%) understood that any money borrowed would have to be repaid. Furthermore, 79% of participants understood that money that was not repaid quickly would accrue interest charges.

Psychological ownership. The three questions assessing psychological ownership of borrowed money loaded onto a single factor and provided reliable internal consistency (Cronbach's $\alpha = .85$). Thus, the three measures were combined into a single psychological ownership of borrowed money index. Participants' scores ranged from 1 to 9, with an average value of 3.70 (SD = 2.26).

Interest in financing. We regressed interest in applying for the personal loan on psychological ownership of borrowed money. As predicted, greater psychological ownership of borrowed money predicted increased interest in applying for the financing, $B = .66$, $t(201) = 9.04$, $p < .001$.

We next explored the relationship between psychological ownership of borrowed money and the eight individual-level constructs measured in Study 1a (i.e., debt aversion, intertemporal

discounting, financial literacy, income, materialism, planning for the long-term, planning for the short-term, and self-control). Psychological ownership was negatively correlated with debt aversion ($r = -.39, p < .001$), negatively correlated with financial literacy ($r = -.42, p < .001$), negatively correlated with intertemporal discount rates ($r = -.18, p = .009$), positively correlated with materialism ($r = .34, p < .001$), and negatively correlated with self-control ($r = -.20, p = .004$). See Appendix C for correlations among all variables.

To examine whether psychological ownership of borrowed money provided predictive ability beyond the other constructs measured, we conducted a stepwise-hierarchical regression as in Study 1a. The first block identified participants' financial literacy as a relevant predictor, in addition to the three factors identified in Study 1a (discount rate, their debt aversion, and materialism), $R^2 = .276$. Importantly, psychological ownership provided predictive ability beyond these measures as indicated by a significant R^2 change, $R^2 = .371, F(1, 197) = 29.51, p < .001$. See Appendix D for full regression results.

Repayment concern. We next regressed repayment concern on psychological ownership of borrowed money. While directionally consistent, greater psychological ownership did not significantly predict decreased repayment concern, $B = -.09, t(201) = -1.30, p = .194$. We next explored the role of psychological ownership of borrowed money relative to the other eight variables that were collected using the same method described in Study 1a. In contrast to the results found in Study 1a, the first block identified propensity to plan for the long-term and lower self-control as predictors of repayment concern, $R^2 = .085$. Importantly, the second block identified psychological ownership of borrowed money as adding significant predictive ability as indicated by a significant R^2 change, $R^2 = .106, F(1, 199) = 4.63, p = .033$. See again Appendix D for full regression results.

To summarize, study 1a and 1b showed natural variation in psychological ownership of borrowed money across individuals, and showed that this variation predicts borrowing interest above and beyond other relevant individual-level factors. We note that psychological ownership correlated with more of the other measured factors in Study 1b compared with Study 1a and speculate that this may have been because the measures of psychological ownership in Study 1b referred to feelings towards borrowed money as a general category versus feelings towards money in a specific form (e.g., in the form of credit).

STUDY 2: PSYCHOLOGICAL OWNERSHIP ACROSS DEBT TYPES

Study 2 explored whether psychological ownership varies by context. Specifically, we investigated whether money available through different debt types elicits differential feelings of psychological ownership. We explored four different types of debt that are commonly used to finance discretionary purchases: loans, payday loans, credit lines, and credit cards.

Method

This study was pre-registered on As Predicted (<https://aspredicted.org/blind.php?x=4vx9xi>). Participants were 604 individuals ($M_{\text{age}} = 35.23$, $SD = 11.46$, 58.9% females) on MTurk who completed this study in exchange for monetary compensation. Twenty-nine participants failed the pre-registered instructional manipulation check (IMC, Oppenheimer, Meyvis, and Davidenko 2009), leaving a final sample of 575 participants. Failure rates did not vary by condition, $\chi^2(3) = 1.01, p = .800$.

This study followed a four condition between-subjects design that varied debt type across conditions (credit card, line of credit, loan, and payday loan). Participants were asked to imagine

that, in addition to their current savings, checking, and credit card accounts, their bank gave them additional financing in one of the four debt types. Participants were told that, with those funds, they could spend up to \$500, repay as little or as much as they would like within each month, and that any remaining balance would incur a 15% interest rate.

Next, participants were asked to think about how access to those funds would make them feel about their finances, and were asked to complete a version of the three measures of psychological ownership of borrowed funds described in Study 1b. Specifically, participants responded to the following three measures: (1) “I would feel like the [debt type] money is my money”; (2) “Spending this [debt type] money would feel like accessing my own money early” (3) “Spending this [debt type] money would feel like spending money that's NOT mine to spend” (nine-point scales, 1 = completely disagree, 9 = completely agree; item 3 was reverse-scored). Finally, participants completed demographic information and received the opportunity to provide any comments they had about the study.

Results

The three questions assessing psychological ownership of borrowed money loaded onto a single factor, provided reliable internal consistency (Cronbach's $\alpha = .84$), and were combined into a single measure.

We next conducted an ANOVA to examine the effect of debt type on perceptions of psychological ownership. As predicted, debt type significantly predicted psychological ownership, $F(3, 571) = 3.90, p = .009$. These results are depicted in Figure 3.

While Study 2 was designed to broadly investigate whether psychological ownership differs across debt types, the four types we examined fall into two basic categories that capture the most widely-used types of unsecured financing: debt in the form of “credit” and debt in the

form of “loans”. The pattern of results in Study 2 suggest that differences in psychological ownership might emerge across these two general categories, and be greater for financing in the form of credit. Indeed, in addition to the pre-registered analysis, we conducted a follow-up contrast comparing psychological ownership across the two credit conditions (coded as -1) and the two loan conditions (coded as 1), which revealed that psychological ownership was greater for financing in the form of credit as compared to loans, $F(1, 571) = 8.82, p = .003$.

STUDY 3A: VISUALIZING PSYCHOLOGICAL OWNERSHIP I

The results shown in Study 2 suggest that consumers experience greater psychological ownership for borrowable money in the form of credit as compared to loans. Study 3a was designed to build on and conceptually replicate these results using a different, visual measure of psychological ownership.

Method

Participants were 162 ($M_{\text{age}} = 21.27, SD = 2.02, 49\%$ female) students at a private college in northeastern United States who completed the study in exchange for partial course credit. Sample size was determined based on the maximum number of students who were able to complete the study within the experiment session, and no participants were excluded. The experiment followed a two-condition between-subjects design that varied debt type: line of credit versus loan.

Participants were asked to imagine getting access to either a line of credit or loan, and to indicate whether the funds “would feel more like they belong to another entity or more like they belong to you” using a slider scale with nine points (1 = “...would completely feel like they

belong to another entity”, 9 = “...would completely feel like they are mine to spend”; see Figure 4). Higher scores indicated greater psychological ownership of borrowed money. Participants then answered demographic questions and were given the opportunity to provide comments.

Results and Discussion

In line with our expectations, participants perceived greater psychological ownership of the financing available in the form of a line of credit ($M = 4.16$, $SD = 1.98$) compared to the loan ($M = 3.06$, $SD = 1.81$), $F(1, 160) = 13.47$, $p < .001$.

Study 3a utilized a new visual measure of the construct, and showed results consistent with the three-item scale used to measure the construct in Study 2. Specifically, Study 3a showed that psychological ownership differs by debt type, and is greater for available financing in the form of credit lines compared to loans.

STUDY 3B: VISUALIZING PSYCHOLOGICAL OWNERSHIP II

In study 3b, we collected another visual measure of psychological ownership. We asked participants to consider having access to additional financing in the form of either a credit line or a loan, and we measured psychological ownership by examining whether they envisioned these funds more as being money added to their account (their money) or as money that was owed to another entity (borrowed money) using a visualization task.

Method

Participants were 602 ($M_{\text{age}} = 34.33$, $SD = 11.97$, 55% female) individuals on MTurk who completed this study in exchange for monetary payment. No participants were excluded in

the analysis of this study. The experiment employed a two-condition between-subjects design that varied debt type: line of credit versus loan.

Participants received the following information, with differences by condition bolded here for emphasis: “Imagine that in addition to your current savings, checking, and credit card accounts, your bank gives you an additional [**line of credit / loan**] of \$500. With this [**line of credit / loan**], you can spend up to \$500 per month in advance of your monthly paycheck. You can pay back as little or as much as you would like. Any remaining balance will incur a 15% interest rate.” Next, participants were instructed: “Please think for a minute about how access to this [**line of credit / loan**] would make you feel about your finances.” Then, they viewed two visual depictions (see Figure 5). Both visual depictions displayed a bar graph, with one representing an increase of \$500 (i.e., their money in the bank) and the other representing a decrease of \$500 (i.e., money owed to someone else). Participants were asked, “Which of these pictures best depicts how this [**line of credit / loan**] would make you feel about your finances?” Participants were asked to select one of the two figures.

Next, participants completed an instruction check question: “To ensure you were paying attention, please indicate which of the following you were asked to imagine getting:” (1 = a \$500 personal loan, 2 = a \$500 line of credit, 3 = a \$500 holiday bonus, 4 = a \$500 fine). Last, participants provided demographic information.

Results and Discussion

Instruction check. The majority of participants (98%) correctly identified the condition to which they were assigned, and all participants were included in the subsequent analyses.

Psychological ownership. There was a significant effect of debt type on the dependent variable. As predicted, participants considering a line of credit (53.4%) were more likely to

perceive those funds as their own money in the bank (an increase of \$500) as compared to participants considering a loan (30.8%), $\chi^2(1) = 31.92, p < .001$.

Consistent with the results shown in Study 3a, in Study 3b, participants were more likely to view a line of credit as their money compared to a loan—this time, measured by whether they visualized the funds as being added to or taken away from their account. We replicated this study, comparing access to loans with access to credit cards, the most common form of credit lines available to consumers (see Web Appendix for complete details).

STUDY 4: FLEX LOAN VERSUS FLEX CREDIT

In Study 3a and 3b, we found differences in psychological ownership of borrowed money in the form of a credit line as compared to a loan. We built on this finding in Study 4 by examining whether differences in psychological ownership explain willingness to borrow across debt types. Moreover, although Study 1a and 1b showed that differences in psychological ownership occur even when consumers understand the need to repay debt, we considered the possibility that differences in psychological ownership across debt types simply reflect consumers' differential understanding of how each debt type functions or their expected structural differences across debt types. Though financing in the form of loans and credit can be structurally different, they need not be (see Web Appendix for an example). Thus, to explore whether differences in psychological ownership emerge when debt types are structurally identical, we provided all participants with detailed information about accessing borrowable money and its repayment structure, and varied only its labeling—as a form of credit or loan.

Moreover, we measured understanding of the financing structure to ensure objective understanding was similar across the debt types.

Method

This study was pre-registered on As Predicted (<https://aspredicted.org/blind.php?x=is4s3z>). Participants were 503 individuals ($M_{\text{age}} = 34.2$, $SD = 11.6$, 54% females) on Prolific who completed the study in exchange for monetary compensation. To ensure that all participants were thinking of similar uses for the financing offer, we first asked participants to think about a fun but unnecessary purchase that they wanted to make for themselves that would cost between \$50 - \$1000. Next, participants were randomly assigned to one of two conditions (credit vs. loan) in which they read about an available financing offer. The offers were identical, except one was labeled “flex credit” and the other was labeled “flex loan”. Specifically, we provided participants with identical information explaining that the financing was revolving, was available for amounts between \$25 and \$4,000, offered minimum payment options, required no payments until the money was spent, had no late fees or pre-payment penalties, and was provided on a convenient card everywhere where Visa/Mastercard were accepted. See Appendix E for exact stimuli.

Then, participants were reminded of the purchase they wrote about wanting to buy earlier in the study. For the dependent measure, we asked: “If you did not have the money to pay for the purchase you wrote about, how willing would you be to consider using this [flex credit / flex loan] offer?” using a nine-point scale (1 = not at all interested, 9 = fairly interested).

Next, we measured psychological ownership of borrowed money with the set of five items from study 1a using nine-point scales: (1) “I feel like this is my money” (1 = completely disagree, 9 = completely agree); (2) “Spending this money feels like accessing my own money

early” (1 = completely disagree, 9 = completely agree); (3) “Spending this money feels like spending money that’s not mine to spend” (1 = completely disagree, 9 = completely agree; reverse-scored); (4) “To what extent would this [flex credit / flex loan] feel like money to be repaid versus my money to spend” (1 = feels more like money to be repaid, 9 = feels more like my money to spend); (5) “To what extent would spending this [flex credit / flex loan] feel like using borrowed money versus your money” (1 = more like borrowed money, 9 = more like my money).

We then administered a series of comprehension check questions to assess participants’ objective understanding of the financing terms. First, participants indicated which of two options better described the offer they wrote about: “It is revolving--you apply once and as long as you are below your [flex credit / flex loan] limit, you can use more money any time” or “It is one time--you can use money only one time and need to apply again if you would like to reuse funds.” Next, they indicated their understanding of the repayment obligations by selecting one of two options: “You only need to pay for [flex credit / flex loan] funding that you have spent” or “You must starting paying towards your [flex credit / flex loan] as soon as you accept the offer”. Participants also indicated whether the funding was available on a convenient card that is accepted anywhere Visa is accepted (Yes / No). Finally, participants indicated which financing offer they recalled viewing: “flex credit,” “flex loan,” “I cannot recall.”

We then asked participants two questions about their existing debt. We asked whether participants currently have a credit card (Yes / No), and if so, how often they fully repay their credit card bill(s): Every single month (i.e., I never have a revolving balance), Most months (i.e., multiple times per year), Occasionally (i.e., once every year or few years), or Never (i.e., I

always have a revolving balance). Finally, participants completed demographic information and were permitted to leave any comments they had about the study.

Results

Comprehension check questions. Nearly all participants (98%) understood that the financing offer they received was for revolving debt (98%), that they only needed to make payments once they spent the money (98%), and that the available financing would be on a card accepted where Visa is accepted (96%). Finally, 99.6% of participants correctly identified the debt type that they had viewed. Responses to these four measures did not vary by condition $\chi^2 < 1$, indicating that the manipulation was successful and understood similarly across conditions.

Interest in financing. As anticipated, participants in the credit condition ($M = 4.17$, $SD = 2.81$) were more interested in the financing offer than were participants in the loan condition ($M = 3.19$, $SD = 2.64$), $F(1, 501) = 16.04$, $p < .001$.

Psychological ownership. The five measures assessing psychological ownership of borrowed money loaded onto a single factor, were sufficiently related ($\alpha = .85$), and were combined into a single measure. As predicted, psychological ownership was higher in the credit condition ($M = 3.26$, $SD = 1.99$) than in the loan condition ($M = 2.80$, $SD = 1.90$), $F(1, 501) = 7.53$, $p = .006$.

Mediation. Psychological ownership predicted increased willingness to use financing, $B = 1.02$, $t(501) = 21.67$, $p < .001$. We next tested whether psychological ownership mediated the effect of debt type on participants' interest in the financing offer. Using Hayes' (2013) PROCESS macro (Model 4; 20,000 bootstrap samples), we found support for partial mediation. The indirect effect of debt type on consumers' interest in financing via the psychological

ownership measure did not contain zero [99% CI: .06, .40], although the direct effect remained significant [99% CI: .08, .43].

In line with the exploratory analyses included in our pre-registration, we also examined whether the effect of debt type depended on participants' current use of their credit card as a financing tool (i.e., whether they have a revolving balance). We found no evidence that this factor moderated the results, suggesting that the results were not driven solely by individuals who primarily used their credit card as an alternative way to spend (vs. borrow), both $F < 1$.

We also considered the possibility that the effects found in Study 4 might depend on the nature of the purchases participants considered. We therefore conducted a separate 2x2 between-subjects study in which we varied debt type (flex credit vs. flex loan) and purchase type (discretionary vs. non-discretionary). Although there was directional evidence that the effect may be stronger for discretionary purchases, we found only a significant main effect of debt type. See Supplemental Study 2 in the Web Appendix for complete details of this additional pre-registered study.

STUDY 5: MODERATING PSYCHOLOGICAL OWNERSHIP OF BORROWED MONEY

We have shown that consumers perceive greater psychological ownership of financing in the form of credit as compared to loans. If willingness to borrow is indeed driven by perceptions of psychological ownership, encouraging lower psychological ownership should decrease willingness to borrow, and should be more effective for debt types that typically elicit higher psychological ownership (i.e., credit). This suggests that encouraging lower psychological ownership may reduce interest in a credit offer more so than interest in a loan offer. To examine

this possibility, in Study 5, in addition to varying whether participants considered a financing offer in the form of credit or a loan, we varied the extent to which the offer used lower psychological ownership terminology. To do so, we varied the extent to which the offer highlighted that the money would need to be borrowed and that it belonged to another entity (their bank). We predicted that including the lower psychological ownership terminology would reduce willingness to use financing in the form of credit, and would do so to a greater extent for credit than for loans.

Method

This study was pre-registered on AsPredicted.org (<https://aspredicted.org/blind.php?x=gj98w5>). Participants were 1607 individuals ($M_{\text{age}} = 31.1$, $SD = 8.9$, 49% females) on Prolific who completed the study in exchange for monetary compensation.

The study followed a 2x2 between-subjects design that manipulated debt type (line of credit vs. loan) and offer terminology (control vs. lower psychological ownership). All participants first indicated a fun, but unnecessary purchase that they were thinking about purchasing as in Study 4. Next, as in Study 3, participants were asked to imagine that in addition to their current savings, checking, and credit card accounts, their bank gives them an additional flex [loan / credit line] of \$500 (debt type varied by condition). Moreover, in this study we varied interest rates across condition, such that the loan had a lower interest rate (10%) than the credit line (15%), as they typically do in the real world. In the decreased psychological ownership conditions, we included language to highlight that the money from this offer was borrowed and belonged to the bank. These changes included the following additional line of text: “This [credit

line / loan] lets you temporarily borrow money that belongs to the bank.” (See Appendix F for complete stimuli.)

After reviewing the offer, participants indicated how willing they would be to consider using the offer if they did not have the money to make the purchase they wrote about (1 = not at all willing to consider, 9 = very willing to consider). Last, participants completed an instruction check to assess whether they recalled the debt instrument they read about (options: “flex credit line,” “flex loan,” “I don’t remember”), and provided demographic information.

Results

Instruction check. The majority of participants (93.8%) correctly identified the debt type to which they were assigned.

Interest in the financing offer. There was a significant main effect of debt type, $F(1, 1603) = 4.04, p = .045$. There was also a main effect of offer terminology, $F(1, 1603) = 15.59, p < .001$. However, these main effects were qualified by a marginally significant interaction, $F(1, 1603) = 2.99, p = .084$. In line with our pre-registration, we conducted planned contrasts to examine differences in interest in the offers in the control and lower psychological ownership conditions separately. Consistent with the findings in our earlier studies, in the control conditions participants were more willing to consider the financing offer for flex credit than for a flex loan ($M_{\text{credit}} = 3.61, SD = 2.72$ vs. $M_{\text{loan}} = 3.14, SD = 2.62$), $F(1, 1603) = 7.01, p = .008$. However, in the lower psychological ownership conditions there were no differences between the flex credit and flex loan, ($M_{\text{credit}} = 2.90, SD = 2.31$ vs. $M_{\text{loan}} = 2.86, SD = 2.43$), $F < 1$. We note that this was due to a significant reduction in interest for the flex credit, $F(1, 1603) = 16.05, p < .001$, as opposed to changes in interest for the flex loan, $F(1, 1603) = 2.48, p = .116$.

In Study 5, incorporating lower psychological ownership terminology led to reduced interest in a financing offer, and this was particularly so for credit, a debt type typically higher in psychological ownership. We conceptually replicated this study examining interest in using a credit card versus personal loan offer, depending on whether the offer including lower psychological ownership language, $F_{\text{interaction}}(1, 801) = 4.88, p < .027$ (see Supplemental Study 3 in the Web Appendix for details). These results provide additional evidence that psychological ownership plays a causal role in explaining differences in willingness to borrow across debt types.

STUDY 6: PSYCHOLOGICAL OWNERSHIP AND GOOGLE SEARCHES

In study 6, we examined whether differences in psychological ownership of borrowed money manifest in the way consumers search for financial products online. To the extent that psychological ownership of borrowed money varies and impacts consumers, there should be predictable, systematic differences in online search patterns across financing products.

We have shown that people perceive greater psychological ownership towards credit than loans. That is, relative to loans, credit is more likely to be seen as one's own money rather than money that will need to be repaid. We accordingly predict that search volume for credit cards should be greater than search volume for loans when search terms reflect higher psychological ownership. Conversely, we predict that search volume for credit cards should be lower than search volume for loans when the terms reflect lower psychological ownership. To examine this possibility, we generated a list of twenty potential search term phrases that could be used in conjunction with the terms "credit card(s)" and "loan(s)" that we expected to vary in

psychological ownership. Ten search term phrases were expected to be higher in psychological ownership (e.g., “my money”), and thus more likely to be used in conjunction with “credit card”, and ten search term phrases were expected to be lower in psychological ownership (e.g., “borrowed money”), and thus be more likely to be used in conjunction with “loan”. See Table 1 for all pre-tested search term phrases. Table 2 includes the complete search term phrases that were used in the main study.

These twenty search term phrases were pre-tested for degree of psychological ownership in a pre-registered study (<https://aspredicted.org/blind.php?x=uw52c4>) among a sample of 51 MTurk workers. Participants were asked to rate all twenty search term phrases based on the extent to which each phrase reflected higher versus lower psychological ownership using the following question: “To what extent does the search phrase below feel like it's about someone's own money versus feel like it's about money that does not belong to them?” (1 = More like someone's own money—money someone can spend as they like, 7 = More like money that doesn't belong to them—money that must be repaid). In line with our pre-registration, we identified the search term phrases that participants rated as the 5 highest and 5 lowest on psychological ownership, and found that these groups of search term phrases significantly differed from each other in average psychological ownership, $t(50) = 11.60, p < .001$.

TABLE 1: SEARCH TERM PHRASES PRETESTED FOR PSYCHOLOGICAL OWNERSHIP IN

STUDY 6

High Psychological Ownership Search Term Phrases		Low Psychological Ownership Search Term Phrases	
1.	my money *	1.	paying off a ...
2.	my cash *	2.	repaying a ... *
3.	my funds *	3.	borrowing on a ... *
4.	money to spend	4.	Repayment

5.	spending money	5.	... to repay
6.	my own money *	6.	borrowed money *
7.	... to spend	7.	borrowing *
8.	Spending	8.	debt *
9.	money for me	9.	Obligations
10.	spending my... *	10.	repay a ...

Table 1. Google search term phrases pretested for psychological ownership. The * denotes a search term selected for use in the main study.

TABLE 2: COMPLETE SEARCH TERM PHRASES USED IN STUDY 6

	Psychological ownership	Pre-tested search term phrase	Credit card version	Loan version
1.	higher	My money	My credit card money	My loan money
2.	higher	My cash	My credit card cash	My loan cash
3.	higher	My funds	My credit card funds	My loan funds
4.	higher	My own money	My own credit card money	My own loan money
5.	higher	Spending my	Spending my credit card	Spending my loan
6.	lower	Repaying a...	Repaying a credit card	Repaying a loan
7.	lower	Borrowing on a...	Borrowing on a credit card	Borrowing on a loan
8.	lower	Borrowed money	Borrowed credit card money	Borrowed loan money
9.	lower	Borrowing	Credit card borrowing	Loan borrowing
10.	lower	Debt	Credit card debt	Loan debt

Table 2. Google search term phrases used in the main study.

In accordance with our pre-registration, we used the Google trends comparison tool to collect measures of relative search volume (Google, 2018). The Google trends comparison tool permits the collection of search volume data during specific time intervals for a desired geographic area. For any given search topic and timeframe, Google reports the standardized search volume (from 0% to 100%) to reflect interest in a given topic. Google calculates this measure by assessing the percentage of searches for that topic across the geographic area as a function of all of the searches in that area. Google then standardizes each of these scores by adjusting the area-level score relative to the search term with the highest proportion of searches for that topic in any single period. Thus, for each search term phrase, we compared the search volume for credit cards to the search volume for loans across the United States for each week for

the last year (52 weeks). For instance, for the search term phrase “my money,” we compared the relative search volume of “my credit card money” to “my loan money”. The highest search volume for “my money” during this 52 week period occurred in week 46 for the term “my credit card money”. Hence, “my credit card money” receives a score of 100 for week 46, and all the other scores for “my money” are standardized relative to this search volume and ranked between 0 and 100 accordingly.

Our hypothesis predicts an interaction where searches are greater for credit cards versus loans for search term phrases higher in psychological ownership, but lower for credit cards versus loans for search term phrases lower in psychological ownership. To examine this prediction, we regressed Google search volume on a dummy-coded variable indicating the debt type (0 = loan, 1 = credit card), psychological ownership (0 = low, 1 = high), and their interaction using the following model specification:

$$\text{Search Volume}_{ijkt} = \beta_1 \text{Debt Type}_{ikt} + \beta_2 \text{PsychOwnership}_{ijk} + \beta_3 \text{Debt Type} \times \text{PsychOwnership}_{it} + \alpha_i + \tau_t + \epsilon_{ijkt}$$

The dependent variable is the relative search volume of search term i for debt type j with psychological ownership k in week t . We included search term fixed effects, identified as α_i , to account for heterogeneity in search term popularity. We also controlled for week-level heterogeneity in the data via week-level fixed effects, identified by τ_t .

There was a main effect of debt type, $B = -19.92$, $SE = 1.38$, $\text{Wald } X^2 = 208.54$, $p < .001$, and a main effect of psychological ownership, $B = -20.92$, $SE = 2.39$, $\text{Wald } X^2 = 76.70$, $p < .001$. Importantly, we found the expected interaction, $B = 51.45$, $SE = 1.95$, $\text{Wald } X^2 = 687.72$, $p < .001$.

.001. While credit cards were searched more often than loans when search terms reflected higher psychological ownership, loans were searched more often than credit cards when search terms reflected lower psychological ownership (see figure 6). Graphs reflecting relative search volume on a pair by pair basis are available in Appendix G.

Study 6 provides further evidence that psychological ownership varies across debt type. Moreover, this study provides another important implication for understanding psychological ownership of borrowed money: predicting actual search patterns for debt types.

GENERAL DISCUSSION

The aim of the current work is to establish the concept of psychological ownership of money and to investigate some of its implications for consumer borrowing. Across eight studies, we measure psychological ownership using a variety of methods, including scales and multiple visual representations. Our results demonstrate that psychological ownership varies across consumers and predicts which consumers will be most interested in borrowing. We also find that psychological ownership is distinct from and provides predictive ability in consumers' willingness to borrow over and beyond debt aversion, financial literacy, income, intertemporal discount rates, materialism, propensity to plan, and self-control. The current work finds that in addition to varying across consumers, psychological ownership of borrowed money varies across debt types that can be used to finance discretionary purchases. Specifically, psychological ownership is generally higher for money available in the form of credit compared to loans. Differences in psychological ownership across debt types impact willingness to borrow, and can do so to a greater extent than key economic factors such as interest rate (Study 5). Importantly,

our empirical evidence suggests that differences in psychological ownership do not merely reflect an unawareness or misunderstanding that borrowed funds must be repaid. Instead, psychological ownership of borrowed money primarily reflects the extent to which consumers subjectively perceive that borrowed money is their own.

Our investigation of differences in psychological ownership across debt types focused on differences between loans and credit lines. We focused on this comparison in particular because 1) these are common forms of debt that consumers can use for similar (discretionary) purchases, (2) they produce reliable differences in both psychological ownership and interest in debt uptake, and 3) these differences in psychological ownership arise despite the fact that these two debt types are often quite similar structurally (or even identical, as in Study 4). Although understanding the precise reasons why loan versus credit financing options differ so markedly in psychological ownership is beyond the scope of the current paper, we think it presents an important question for future investigation.

The current work also builds understanding within the mental accounting literature. Existing mental accounting research has shown that payment forms can impact consumers' decisions. However, this existing research has primarily focused on payment forms for existing consumer assets (e.g., cash, debit cards, gift cards, tokens) and does not clearly generate predictions for different debt types. For example, one explanation for differences across payment forms draws upon features of using and physically parting with cash. Using cash requires consumers to count and transfer dollar bills, encouraging rehearsal and salience of asset depletion (e.g., Raghurir and Srivastava 2008; Soman 2001; Soman 2003). This explanation suggests that 'credit card versus cash' effects are mainly due to consumers' aversion to parting with cash. A second explanation pertains to differences in payment decoupling, whereby credit

cards and debit cards (relative to cash) offer the ability to make purchases in the present and pay for them later. That is, this explanation suggests that consumers receive greater consumption utility from a purchase using a credit card because they can enjoy the benefits of their purchase before the funds are actually removed from their account (e.g., Prelec and Loewenstein 1998; Thaler 1999; Tokunaga 1993). Notably, payment decoupling is the hallmark of all debt types and is thus held constant for financing using credit and loans. Thus, the current research offers two key contributions to the research on mental accounting. First, rather than focusing solely on current assets, we examine and demonstrate differences in payment forms in the domain of debt. Second, we introduce psychological ownership of money as a construct that systematically differs across payment forms.

The central aim of our research was to introduce the construct of psychological ownership of borrowed money, to document individual and contextual variation on this dimension, and to examine some consequences of this variation. Having documented these patterns, our work underscores the need for future research to examine drivers of psychological ownership of money. That is, the current work should serve as a starting point for future work examining psychological ownership more deeply. Research on psychological ownership in organizations may offer some fruitful directions for this endeavor. For instance, greater autonomy, familiarity, and knowledge has been shown to increase psychological ownership of organizations (Pierce, Kostova, and Dirks 2001; Pierce, O'driscoll, and Coghlan 2004). It is possible that similar concepts contribute to psychological ownership of borrowed money. For example, receiving more financing offers, having increased autonomy over the expenditure of borrowed funds, or having more experience with borrowing may increase psychological ownership of borrowed money.

An additional important extension of the current work is to explore the notion of psychological ownership across broader financial contexts. Here, we focus on available financing; however, psychological ownership of money may vary across currently owned assets as well. The construct of psychological ownership of money might be especially important in interpersonal financial domains such as shared finances between romantic partners. Future research could explore these topics.

Our work has a number of important implications for policy makers and educators. Psychological ownership perceptions are powerful, and may impact consumers to a greater degree than some central economic considerations such as interest rates. Indeed, Study 5 showed that psychological ownership perceptions can encourage consumers to use certain forms of debt over others, even when those forms have substantially higher interest rates. However, this study also demonstrated that perceptions of psychological ownership are malleable, and can be reduced through the use of different language. Future research may consider whether changes to the language used in credit card applications or credit card bills that encourage lower psychological ownership can encourage more future-focused credit card decisions. Beyond nudges, our work suggests that educational programs or interventions that reduce psychological ownership of borrowed money may help to reduce over-borrowing and empower consumers to manage their money more effectively.

Consumers have more opportunities to finance their purchases than ever before, amidst growing technological advancements and increased competition among lending providers. While these changes may enable greater consumer purchasing power in the short term, over-borrowing can be dangerous to for both consumer and societal welfare. The current work establishes the novel construct of psychological ownership of (borrowed) money, which systematically varies

by individuals and contexts, and may help predict why some new lending forms are more attractive than others.

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FIGURE 1: PSYCHOLOGICAL OWNERSHIP OF BORROWED MONEY

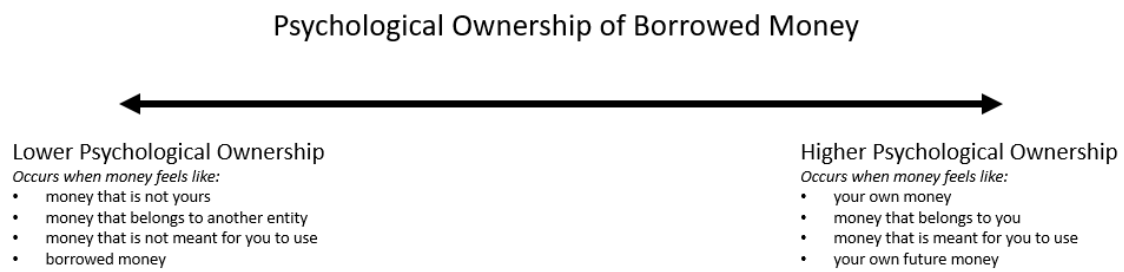


FIGURE 2: OFFERS PRESENTED TO PARTICIPANTS IN STUDY 1A AND 1B,
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From experiencing more of life, to improving the everyday, there are many reasons to want a personal loan. Whether it's finally taking that dream vacation, walking into your brand new kitchen, or simply consolidating debt, a personal loan from American Express offers the right option for you.



Fixed monthly payments

No origination fee or pre-payment penalty

Lock in a competitive fixed interest rate with our quick and simple application. Click the button below to see if you are pre-approved for a personal loan.

Terms and Conditions apply

[Click Here to See Your Rate](#)

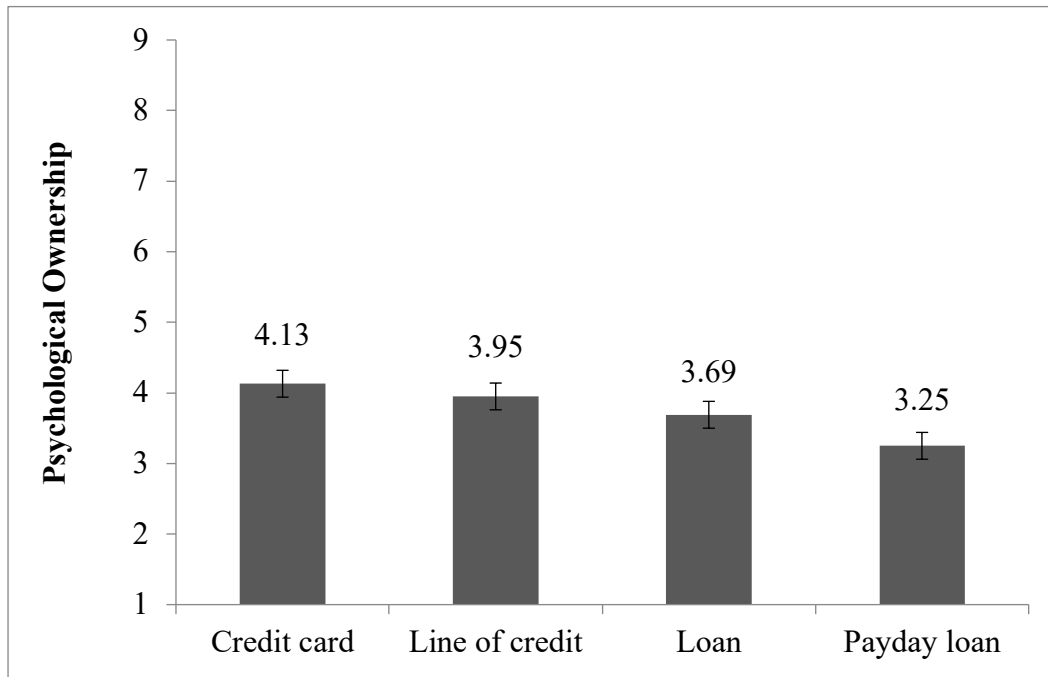
FIGURE 3: PSYCHOLOGICAL OWNERSHIP OF BORROWED MONEY IN STUDY 2

FIGURE 4: VISUAL STIMULI PRESENTED TO PARTICIPANTS IN STUDY 3A

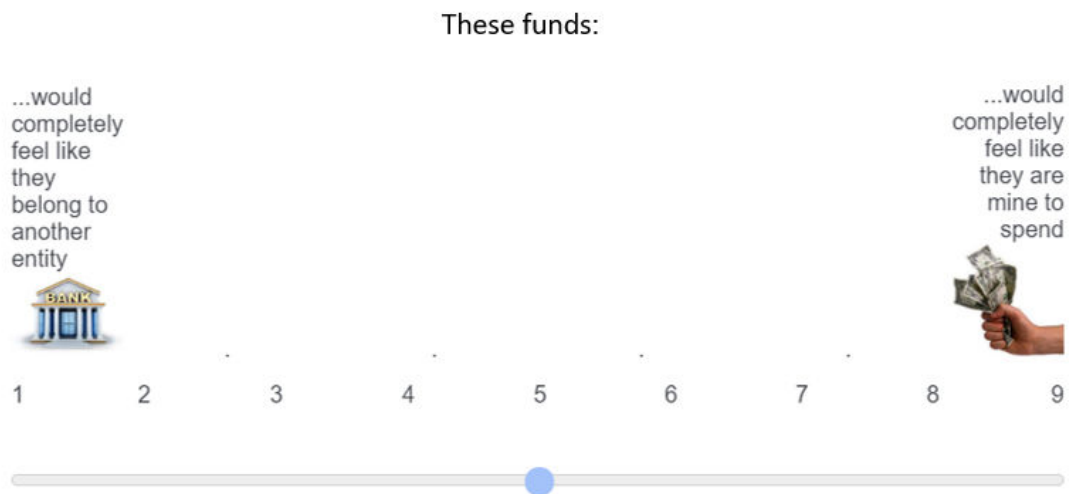
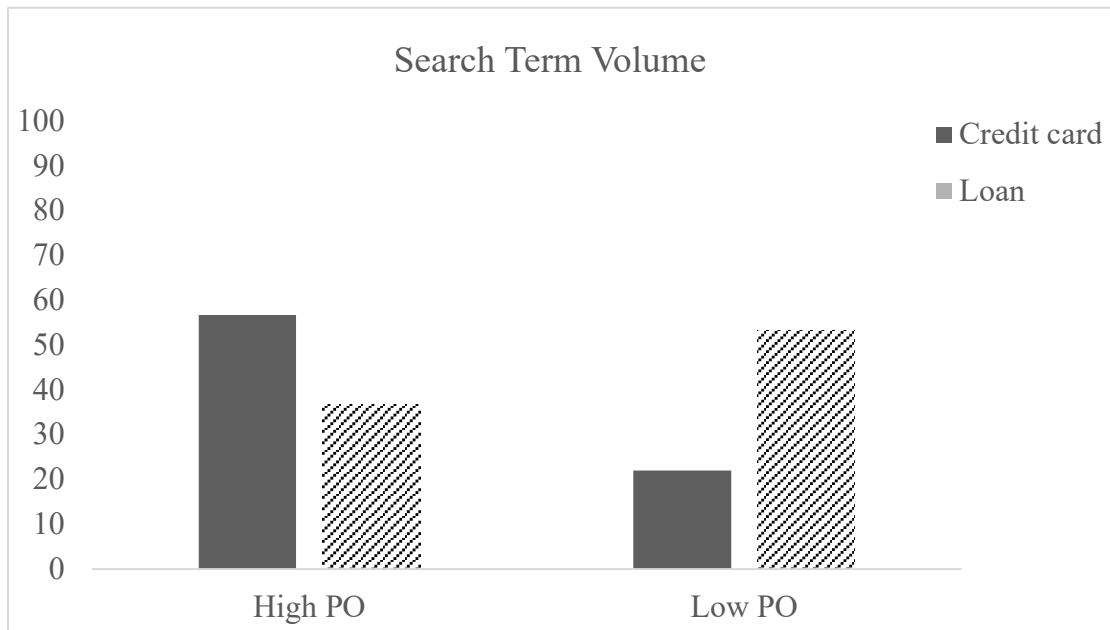


FIGURE 5: VISUAL STIMULI PRESENTED TO PARTICIPANTS IN STUDY 3B



FIGURE 6: RELATIVE SEARCH TERM VOLUME BY DEBT TYPE AND PSYCHOLOGICAL OWNERSHIP (PO)



APPENDIX A:
CORRELATIONS AMONG ALL VARIABLES IN STUDY 1A

	Psychological Ownership	Interest In Applying	Repayment Concern	Materialism	Financial Literacy	Debt Aversion	Planning ST	Planning LT	Self Control	Intertemporal Discounting	Income
Psychological Ownership	1	.428***	-.190**	.149*	-0.091	-0.051	-.186**	-0.061	-0.046	-0.049	0.014
Interest In Applying	.428***	1	-0.093	.154*	-.139*	-.163*	0.130	0.069	-0.097	.193**	-0.108
Repayment Concern	-.190**	-0.093	1	0.070	0.096	0.105	.205**	.141*	-0.060	0.102	-0.086
Materialism	.149*	.154*	0.070	1	0.025	-0.077	-0.042	-0.062	0.249***	-0.035	0.045
Financial Literacy	-0.091	-.139*	0.096	0.025	1	0.008	0.022	.176*	0.102	-.186**	.218**
Debt Aversion	-0.051	-.163*	0.105	-0.077	0.008	1	0.019	0.078	0.022	0.018	0.085
Planning – Short term (ST)	-.186**	0.130	.205**	-0.042	0.022	0.019	1	.561***	.213**	0.103	-0.063
Planning – Long term (LT)	-0.061	0.069	.141*	-0.062	.176*	0.078	.561***	1	.366***	-0.093	0.090
Self Control	-0.046	-0.097	-0.060	-.249***	0.102	0.022	.213**	.366***	1	-0.046	0.089
Intertemporal Discounting	-0.049	.193**	0.102	-0.035	-.186**	0.018	0.103	-0.093	-0.046	1	-.141*
Income	0.014	-0.108	-0.086	0.045	.218**	0.085	-0.063	0.090	0.089	-.141*	1

*. Correlation is significant at the 0.05 level (2-tailed), **. Correlation is significant at the 0.05 level (2-tailed), ***. Correlation is significant at the 0.05 level (2-tailed)

APPENDIX B:

REGRESSION RESULTS FOR INTEREST IN APPLYING FOR THE FINANCING OFFER IN

STUDY 1A

Model		Unstandardized		Standardized	t	Sig.
		B	SE	β		
Block 1	(Constant)	2.460	.766		3.212	.002
	Discount Rate	.211	.073	.196	2.902	.004
	Debt Aversion	-.934	.415	-.153	-2.250	.026
	Materialism	.447	.200	.152	2.235	.027
Block 2	(Constant)	1.121	.720		1.557	.121
	Discount Rate	.231	.066	.215	3.515	.001
	Debt Aversion	-.836	.375	-.137	-2.226	.027
	Materialism	.269	.183	.091	1.469	.143
	Psychological Ownership	.470	.070	.419	6.761	.000

REGRESSION RESULTS FOR REPAYMENT CONCERN IN STUDY 1A

Model		Unstandardized		Standardized	t	Sig.
		B	S.E.	β		
Block 1	(Constant)	4.303	.685		6.283	.000
	Planning ST	.467	.155	.207	3.014	.003
Block 2	(Constant)	5.404	.836		6.465	.000
	Planning ST	.401	.156	.178	2.566	.011
	Psychological Ownership	-.221	.098	-.156	-2.253	.025

APPENDIX C:

CORRELATIONS AMONG ALL VARIABLES IN STUDY 1B:

	Psychological Ownership	Interest In Applying	Repayment Concern	Materialism	Financial Literacy	Debt Aversion	Planning ST	Planning LT	Self Control	Intertemporal Discounting	Income
Psychological Ownership	1	.400***	-.192*	.201*	-.231**	-.306***	-0.095	-0.080	-0.020	0.067	.157*
Interest In Applying	.400***	1	-0.131	.210**	-0.125	-.188*	0.062	-0.066	-0.014	-0.003	0.117
Repayment Concern	-.192*	-0.131	1	0.008	0.013	.189*	0.072	0.079	-.179*	0.022	-0.140
Materialism	.201*	.210**	0.008	1	-.180*	-0.012	-0.015	-.183*	-.328***	0.087	-0.017
Financial Literacy	-.231**	-0.125	0.013	-.180*	1	0.018	0.034	0.066	0.137	-0.112	0.074
Debt Aversion	-.306***	-.188*	.189*	-0.012	0.018	1	-0.004	-0.066	0.003	0.063	-0.148
Planning – Short term (ST)	-0.095	0.062	0.072	-0.015	0.034	-0.004	1	.663***	.209**	-0.041	-.187*
Planning – Long term (LT)	-0.080	-0.066	0.079	-.183*	0.066	-0.066	.663***	1	.340***	-0.085	-0.080
Self Control	-0.020	-0.014	-.179*	-.328***	0.137	0.003	.209**	.340***	1	0.061	0.140
Intertemporal Discounting	0.067	-0.003	0.022	0.087	-0.112	0.063	-0.041	-0.085	0.061	1	-0.103
Income	.157*	0.117	-0.140	-0.017	0.074	-0.148	-.187*	-0.080	0.140	-0.103	1

*. Correlation is significant at the 0.05 level (2-tailed), **. Correlation is significant at the 0.05 level (2-tailed), ***. Correlation is significant at the 0.05 level (2-tailed)

APPENDIX D:

REGRESSION RESULTS FOR INTEREST IN APPLYING FOR THE FINANCING OFFER IN

STUDY 1B

Model		Unstandardized		Standardized	t	Sig.
		B	S.E.	β		
Block 1	(Constant)	-4.942	3.238		-1.526	.129
	Financial Literacy	-.526	.175	-.201	-3.009	.003
	Debt Aversion	-1.519	.419	-.230	-3.629	.000
	Materialism	.783	.201	.251	3.890	.000
	Discount Rate	-.144	.071	-.128	-2.024	.044
Block 2	(Constant)	-4.217	3.030		-1.392	.166
	Financial Literacy	-.262	.170	-.100	-1.538	.126
	Debt Aversion	-.806	.413	-.122	-1.952	.052
	Materialism	.556	.193	.179	2.883	.004
	Discount Rate	-.132	.067	-.117	-1.972	.050
	Psychological Ownership	.454	.083	.367	5.432	.000

REGRESSION RESULTS FOR REPAYMENT CONCERN IN STUDY 1B

Model		Unstandardized		Standardized	t	Sig.
		B	S.E.	β		
Block 1	(Constant)	2.781	.983		2.830	.005
	Self-Control	-.888	.223	-.276	-3.979	.000
	Planning LT	.330	.131	.174	2.513	.013
Block 2	(Constant)	3.013	.980		3.075	.002
	Self-Control	-.985	.226	-.306	-4.364	.000
	Planning LT	.332	.130	.175	2.553	.011
	Psychological Ownership	-.142	.066	-.147	-2.151	.033

*APPENDIX E:**FLEX CREDIT VERSUS FLEX LOAN STIMULI PRESENTED TO PARTICIPANTS IN STUDY 4*

[Flex **credit** / a flex **loan**] gets you the right amount of cash for every situation and gives you the flexibility and control you need. [Flex **credit** / a flex **loan**] gives you the ability to apply once and withdraw cash at any time (up to a specified limit). With [flex **credit** / a flex **loan**] you pay it back at your own pace, with conveniently scheduled payments, or installments. [Flex **credit** is / Flex **loans** are] available from \$25 up to \$4,000, and have competitive interest rates.

Here's how it works. **You only owe money once you spend it.** On your [**credit** / **loan**] due dates, if you have used any portion of the [**credit** / **loan**], you will have the option to pay only a minimum amount due or pay an additional amount so you can pay down your [**credit** / **loan**] balance quicker. There's never any late fees. This is [**revolving credit** / a **revolving loan**], which means that as you pay down your balance, you will have the ability to take out additional funds as long as you are within your [**credit** / **loan**] limit. You can pay off your [**credit** / **loan**] early without penalty. Your [**credit** / **loan**] will be available on a convenient card and can be used wherever Visa/Mastercard are accepted.

APPENDIX F:
OFFERS PRESENTED TO PARTICIPANTS IN STUDY 5

Control condition

A [LOAN / CREDIT LINE]

Imagine that in addition to your current savings, checking, and credit card accounts, your bank gives you an additional flex [loan / credit line] of \$500. With this [loan / credit line], you can spend up to \$500 per month. You can pay back as little or as much as you would like. Any remaining balance will incur a [10% / 15%] interest rate.

Lower psychological ownership terminology condition

BORROW MONEY WITH A [LOAN / CREDIT LINE]

Imagine that in addition to your current savings, checking, and credit card accounts, your bank lets you borrow money with an additional flex [loan / credit line] of \$500. With this [loan / credit line], you can borrow up to \$500 of the bank's money per month. You can pay back as little or as much of their money as you would like. Any remaining balance will incur a [10% / 15%] interest rate.

This [loan / credit line] lets you temporarily borrow money that belongs to the bank.

APPENDIX G:

RELATIVE SEARCH VOLUME FOR EACH PAIR OF SEARCH TERMS USED IN STUDY 6



WEB APPENDIX

LOAN STRUCTURED AS A LINE OF CREDIT

ASK ABOUT OUR
FLEX
LOAN!

QUALIFY AND GET UP TO
\$2,500*

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FLEX Loans – Tennessee

FLEX
loan

Ready to get started?



We know how hard it can be to make ends meet until your next payday. Whether you need cash for three days, three months or until your next payday, we want to get you the right amount of cash for every situation and give you the flexibility and control you need. Unlike a Payday Loan or an Installment Loan, a **FLEX Loan** gives you the ability to apply once and withdraw cash at any time (up to your credit limit). And unlike a payday loan or installment loan, with a **FLEX Loan**, you pay it back at your own pace, with conveniently scheduled payments, or installments, aligned with your payday. **FLEX Loans** are anywhere from \$25 up to \$4,000. We offer **FLEX Loans** both online or at any one of our [24/7 locations](#) all over Tennessee.

Here's how it works. We attempt to align your line of credit due dates with your paydays. On your loan due dates, you have the option to pay only the minimum amount due on your line of credit or pay an additional amount so you can pay down your balance quicker. There's never any late fees. As you pay down your balance, you will have the ability to take out additional cash in the form of a cash advance up to your credit limit. An Advance Financial **FLEX Loan** puts you in complete control. You can pay off your loan early without penalty and we will even keep your line of credit open so you can withdraw more money at a later date. You must live in Tennessee to obtain this loan. Your cash will be sent to your bank account, usually within a day.

If you have any questions, feel free to call Customer Service or ask one of our store associates for more information about our fee structure.

Source: <https://www.af247.com/services/flex-loans>

ADDITIONAL ANALYSES FOR STUDY 1A IN THE MAIN MANUSCRIPT

Revolving balance. In addition to the analyses provided in the paper, we collected measures of whether participants currently had a revolving balance on their credit card. We thus conducted additional analysis to ensure that differences in psychological ownership are not simply reflecting differences in whether participants pay off their credit card balance in full each month (and thus a credit card is more akin to their own money). Directionally, people without a revolving balance indicated feeling greater psychological ownership of the credit card money. However, this relationship was not significant, $B = -.34$, $t(203) = -1.10$, $p = .273$. Moreover, whether participants had a revolving balance did not significantly impact whether participants were interested in the credit card, $B = .11$, $t(203) < 1$, nor did this factor significantly moderate the relationship between psychological ownership and interest in the offer, $B = .26$, $t(201) = 1.58$, $p = .115$.

ADDITIONAL ANALYSES FOR STUDY 1B IN THE MAIN MANUSCRIPT

Existing debt. We explored whether there was any relationship between participants' psychological ownership of borrowed funds and their existing debt. Through some of the open-ended responses, we learned that some participants mistook the "other" category for things like mortgages and car loans, which were not the intention. Moreover, this interpretation likely varied across participants. Thus, we analyzed responses only to the debt types we specified (i.e., revolving credit card balance, other credit line, payday loan, and personal loan). Nearly half of participants (49%) indicated having a revolving balance on their credit card, 15% of participants

indicated having a line of credit other than a credit card, 23% of participants indicated having a personal loan and 20% of participants indicated having a payday loan. We recoded responses as to whether participants had any of these debt forms (1 = yes, 0 = no). A binary logistic regression revealed that higher psychological ownership of borrowed money marginally predicted having some existing debt, $B = .12$, $\text{Wald } X^2 = 3.68$, $p = .055$. However, further analysis revealed that this relationship was coming from existing loans (personal or payday), $B = .27$, $\text{Wald } X^2 = 12.19$, $p < .001$. Psychological ownership did not predict having debt in the form of credit, $\text{Wald } X^2 < 1$. These results could suggest that psychological ownership is a better predictor of loan usage than credit usage, at least when considering many types of credit including credit cards. Future research could examine the causal direction of this relationship.

SUPPLEMENTARY STUDY 1: VISUALIZING CREDIT CARDS VERSUS PERSONAL LOANS

Supplementary Study 1 was designed to replicate the results of Study 3 in the main manuscript, examining access to credit card funding rather than a line of credit. Participants imagined having access to additional financing in the form of either a credit card or a loan and indicated how that access would make them feel about their finances using a visual selection task.

Method

Participants were 523 individuals ($M_{\text{age}} = 37.47$, $SD = 11.94$, 45% female) on MTurk who completed this study in exchange for monetary payment. No participants were excluded in the analysis of this study. The study followed a two condition between-subjects design that varied debt form: credit card versus loan.

Participants received the following information, with differences by condition bolded here for emphasis: “Imagine that in addition to your current savings, checking, and credit card accounts, your bank gives you an additional [**credit card account with a limit of \$500 / personal loan of \$500**]. With this [**credit card / personal loan**], you can spend up to \$500 per month in advance of your monthly paycheck. You can pay back as little or as much as you would like. Any remaining balance will incur a 15% interest rate.” Next, participants were instructed: “Please think for a minute about how access to this [**credit card / personal loan**] would make you feel about your finances.” Then, they viewed two visual depictions (see Figure 1). Both visual depictions displayed a bar graph, with one representing an increase of \$500 (“their money in the bank”) and the other representing a decrease of \$500 (“money owed to someone else”). Participants were asked, “Which of these pictures best depicts how this [**credit card / personal**

loan] would make you feel about your finances?” Participants were asked to select one of the two figures described in Study 3 in the main manuscript. Next, participants completed an instruction check question: “To ensure you were paying attention, please indicate which of the following you were asked to imagine getting:” (1 = a \$500 personal loan, 2 = a credit card with a \$500 limit, 3 = a \$500 holiday bonus, 4 = a \$500 fine). Last, participants provided demographic information.

Results and Discussion

Instruction check. The majority of participants (98%) correctly identified the condition to which they were assigned.

Psychological ownership. There was a significant effect of debt form on the dependent variable. Participants considering having additional access to funding through a credit card (55%) were more likely to perceive those funds as their own money in the bank (an increase of \$500) as compared to participants considering a loan (37%), $\chi^2(1) = 17.81, p < .001$. These results conceptually replicate those shown in Study 3 in the main manuscript.

SUPPLEMENTARY STUDY 2: BORROWING FOR DISCRETIONARY VERSUS NON-DISCRETIONARY PURCHASES

Supplementary Study 2 was conducted to explore whether consumers’ greater willingness to borrow using funds in the form of credit versus loans is moderated by the type of purchase consumers intend to make. Specifically, we aimed to examine whether consumers are more willing to use credit versus loans for discretionary (fun, unnecessary) purchases, and whether this preference is attenuated for non-discretionary (useful, necessary) purchases.

Method

This study was pre-registered on AsPredicted (<https://aspredicted.org/blind.php?x=uv2f5p>). Participants were 1618 individuals ($M_{\text{age}} = 35.52$, $SD = 11.70$, 57% female) on MTurk who completed this study in exchange for monetary payment. One hundred and seventeen participants failed the IMC, leaving a final sample of 1501 participants. Failure rates did not vary by condition, $F < 1$.

The study followed a 2x2 between-subjects design that manipulated debt form (flex credit vs. flex loan) and purchase type (discretionary vs. non-discretionary). First, participants received the purchase type manipulation. They were randomly assigned to describe either a fun but unnecessary purchase they wanted to make for themselves, or a useful and necessary purchase they needed to buy for themselves. All participants were instructed to think of something that cost between \$50-1000.

Next, participants reviewed a financing offer, either for flex credit or a flex loan using the stimuli described in Study 4 in the main manuscript. Then, participants were reminded of the purchase they wrote about earlier in the study and were asked: (1) “If you did not have the money to pay for the purchase you wrote about, how willing would you be to consider using this [flex credit / flex loan] offer?” (1 = not at all interested, 9 = fairly interested), and (2) “If you did not have the money to pay for the purchase you wrote about, how likely would you be to consider this [flex credit / flex loan] offer?” (1 = not at all likely, 9 = fairly likely).

Participants were then asked to complete the same comprehension check questions described in Study 4 in the main manuscript. Next, participants completed an instructional manipulation check (IMC; Oppenheimer, Meyvis, and Davidenko 2009), demographic variables, and were given the opportunity to provide any remaining comments they had about the study.

Results

Comprehension check questions. Nearly all participants (97%) understood that the financing offer they received was for revolving debt, that they only needed to make payments once they spent the money (98%), and that the available financing would be on a card accepted where Visa is accepted (96%). Finally, 99% of participants correctly identified the debt form they had viewed. Responses to these four measures did not vary by condition, all p s > .29, indicating that the manipulation was successful and understood similarly across conditions.

Interest in financing. The two measures designed to capture interest in using the financing offer were significantly correlated and combined for analysis, $r = .94$, $p < .001$. There was a significant main effect of debt form, $F(1, 1497) = 12.03$, $p = .001$, and a significant main effect of purchase type, $F(1, 1497) = 98.29$, $p < .001$. The interaction between debt form and purchase type was not significant, $F(1, 1497) = 1.79$, $p = .182$.

As pre-registered, we conducted follow-up planned contrasts within the purchase type conditions. For discretionary purchases, there was significantly greater interest in the flex credit financing offer as compared to the flex loan financing offer ($M_{\text{credit}} = 4.51$, $SD = 2.79$ vs. $M_{\text{loan}} = 3.82$, $SD = 2.87$), $F(1, 1497) = 11.55$, $p = .001$. However, there was no difference for non-discretionary purchases, although the pattern of means followed that observed for discretionary purchases ($M_{\text{credit}} = 5.74$, $SD = 2.72$ vs. $M_{\text{loan}} = 5.43$, $SD = 2.70$), $F(1, 1497) = 2.27$, $p = .132$.

In supplementary Study 2, the debt form*purchase type interaction was not significant. However, the results of the planned follow-up contrasts suggest that willingness to borrow using credit (vs. loans) is significant for discretionary purchases and not for non-discretionary purchases. It is possible that a significant interaction would emerge with an even larger sample

size. Future research may explore whether consumers' willingness to use certain debt forms over others depends at least in part on the types of purchases for which the funds are used.

*SUPPLEMENTARY STUDY 3: MODERATION BY PSYCHOLOGICAL OWNERSHIP
(CONCEPTUAL REPLICATION OF STUDY 7)*

We have shown that consumers perceive greater psychological ownership of financing in the form of credit as compared to loans. If differences in willingness to borrow are indeed driven by differences in psychological ownership, reducing differences in psychological ownership should attenuate differences in willingness to borrow. To examine this possibility, in Study 5, in addition to varying whether participants considered a financing offer in the form of credit or a loan, we varied the extent to which the offer used lower psychological ownership terminology. To do so, we varied the extent to which the terminology highlighted the repayment component of borrowed money. Importantly, highlighting repayment (the fact that the money is not theirs to keep) should have a stronger impact for debt types that consumers more readily perceive as their own (credit), as compared to debt types that they more readily perceive as not their own (loans). As such, we predicted that including the lower psychological ownership terminology would reduce willingness to use financing in the form of credit to a greater extent than it would for financing in the form of a loan.

Method

Participants were 805 individuals ($M_{\text{age}} = 35.15$, $SD = 10.61$, 49% females) on MTurk who completed the study for nominal payment around the winter holidays for nominal payment.

The study followed a 2x2 between-subjects design that manipulated debt type (credit card vs. personal loan) and offer terminology (control vs. decreased psychological ownership). The study procedure was similar to that used in Study 4. All participants read about an offer for either a credit card or a personal loan. As in study 7, interest rates favored (were lower for) personal loans. We held constant the ease of application, the amount of funds available, the neutral impact to applicants' credit scores, and the convenience of being able to use the funds from a card accepted for payment anywhere where Visa is accepted. In the lower psychological ownership terminology conditions, we included language to highlight that the money from this offer was borrowed and would require repayment. The exact language was as follows:

Control condition

There are many purchases to make and there are various ways to pay for your purchases. We would like you to think about your spending and review the potential offer below carefully.

One way for people to make their purchases is with the use of a [credit card / personal loan]. Many of these [credit cards / personal loans] offer the following terms:

- Amount available: up to \$25,000 with no setup fees or penalties for pre-payment
- Fixed interest rates as low as [12.98% (credit card condition) / 8.98% (personal loan condition)]
- No credit score impact to apply
- Simple application and decision in a few minutes
- Funds available on a card for convenience and accepted everywhere Visa is accepted

Low psychological ownership condition

There are many purchases to make and there are various financing options for your purchases. With financing, you get access to money now, but you must repay this amount with interest at a later time. We would like you to think about your spending and review the potential financing offer below carefully.

One way for people to finance their purchases is with the use of a [credit card / personal loan]. Such debt types give you money now, but require you to repay the money with interest later. Many of these [credit cards / personal loans] offer the following terms:

- Amount available: up to \$25,000 with no setup fees or penalties for pre-payment
- Funds available on a card for convenience and accepted everywhere Visa is accepted
- Fixed interest rates as low as [12.98% (credit card condition) / 8.98% (personal loan condition)]
- No credit score impact to apply
- Simple application and decision in a few minutes

Such debt types give you money now, but require you to the repay the money with interest later.

Importantly, as repayment with interest is a hallmark of all forms of financing, and most online workers recognize that borrowed funds must be repaid (Study 1), this language should not provide new information to participants.

After reviewing the offer, participants indicated how interested they were in applying for the offer (1 = not at all interested, 9 = very interested) and how likely they would be to apply for the offer (1 = very unlikely, 9 = very likely). Next, because this study was run just before Christmas, we asked participants how concerned they would be about repaying the financing if they used it to buy holiday purchases (1 = not at all concerned, 9 = extremely concerned). Last, participants completed an instruction check to assess whether they recalled the debt instrument they read about (options: “credit card,” “personal loan,” “I don’t remember”), and provided demographic information.

Results

Instruction check. The majority of participants (95.9%) correctly identified the debt type to which they were assigned.

Interest in financing. The two measures assessing participants' interest in and likelihood of applying for the offer were correlated and combined to form a single measure of interest in the financing offer, $r = .91, p < .001$. There was a significant main effect of debt type, $F(1, 801) = 22.40, p < .001$. There was no main effect of offer terminology, $F(1, 801) = 2.57, p < .11$. However, there was a significant debt type by offer terminology interaction, $F(1, 801) = 4.88, p < .027$. In the control condition, interest in the credit card offer was significantly greater than interest in the loan offer, $F(1, 801) = 24.25, p < .001$. However, these differences were reduced to marginal significance in the lower psychological ownership terminology condition, $F(1, 801) = 3.17, p = .076$. Moreover, as in study 7, these differences were driven by changes to interest in the credit offer, ($M_{\text{control}} = 5.67, SD = 2.53$ vs. $M_{\text{lower ownership}} = 4.98, SD = 2.47$), $F(1, 801) = 7.35, p = .007$, whereas interest in the loan did not significantly differ across condition, ($M_{\text{control}} = 4.41, SD = 2.63$ vs. $M_{\text{lower ownership}} = 4.52, SD = 2.66$), $F < 1$.

Repayment concern. There was a significant main effect of debt type on repayment concern, $F(1, 801) = 25.49, p < .001$. There was no main effect of offer terminology on repayment concern, $F < 1$. We observed a marginally significant interaction, $F(1, 801) = 2.72, p = .099$. In the control condition, participants were significantly more concerned about repaying any money spent using the loan compared to the credit ($M_{\text{credit}} = 5.67, SD = 2.78$ vs. $M_{\text{loan}} = 6.86, SD = 2.29$), $F(1, 801) = 22.58, p < .001$. Participants continued to be more concerned about repaying the loan in the lower psychological ownership terminology condition ($M_{\text{credit}} = 6.14, SD = 2.57$ vs. $M_{\text{loan}} = 6.748, SD = 2.40$), $F(1, 801) = 5.74, p = .017$. Consistent with changes to

interest, the credit condition was impacted more so than the loan condition. Lower psychological ownership terminology marginally increased repayment concern for credit, $F(1, 801) = 3.56, p = .059$, but did not significantly influence repayment concern for loans, $F < 1$.

This study provides a conceptual replication for Study 5 in the main manuscript. Incorporating lower psychological ownership terminology led to less interest in a debt type that is typically higher in psychological ownership (credit), but had no impact on interest in a debt type that is typically lower in psychological ownership (loans). Moreover, this study provides suggestive evidence that such terminology can impact repayment concern. These results provide greater evidence that psychological ownership plays a causal role in explaining differences in willingness to borrow across debt types. Moreover, these results demonstrate that reducing the psychological ownership of credit card funds may encourage more responsible credit card usage.