

PSYCHOLOGICAL OWNERSHIP OF (BORROWED) MONEY

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MY RESEARCH: CONSUMER FINANCIAL DECISION MAKING

Financial
Decisions



Poverty



Sharma and Keller 2017;
Tully and Sharma 2018

Feeling Poor

Sharma and Alter 2012; Sharma et al.
2014; Paley, Tully, and Sharma 2019



Sussman, Sharma and Alter 2015;
Sharma and Morwitz 2016



CONSUMER BORROWING

The average household's credit card revolving balance is
\$6,829
in credit card debt.

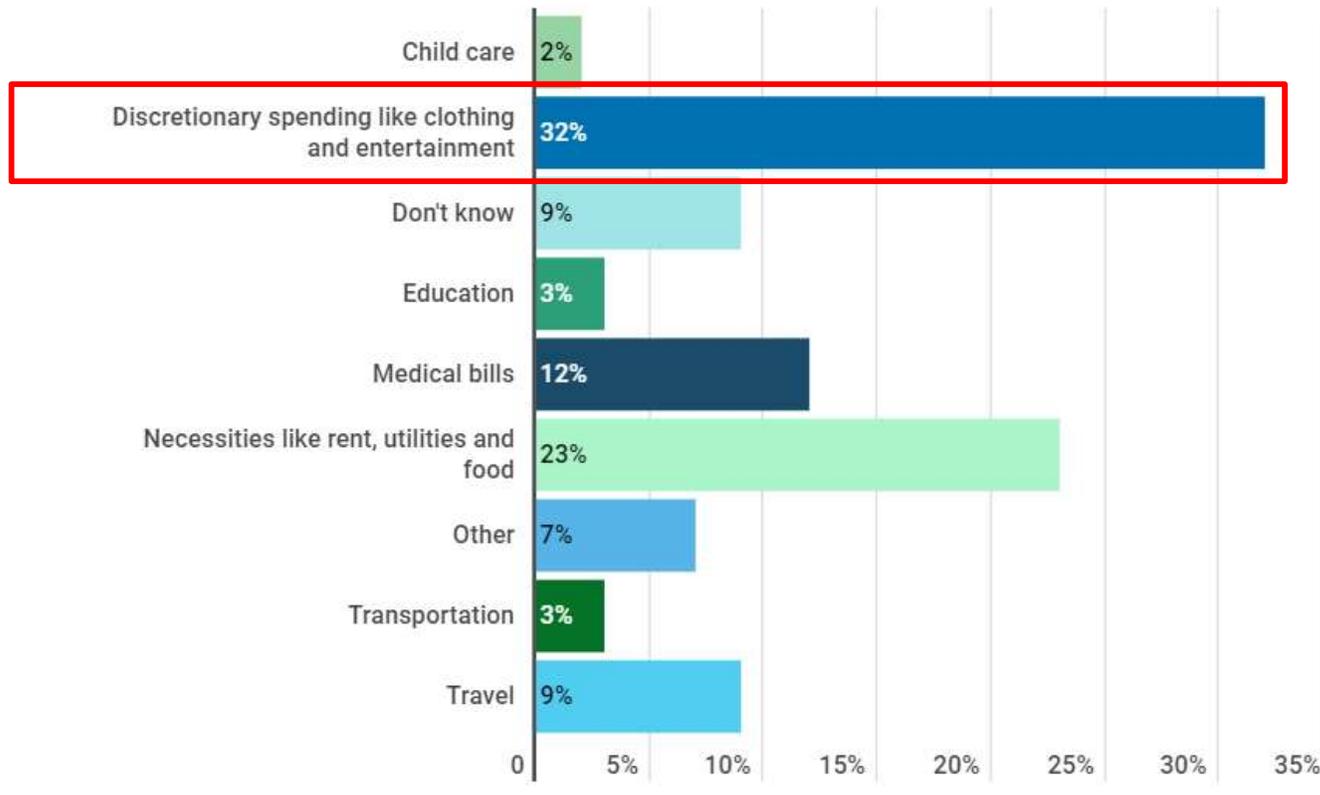
(NerdWallet, 2018)

The average American household spends
\$12,800
annually on discretionary purchases

(Experian Simmons, 2011)

DEBT FOR DISCRETIONARY PURCHASES

CNBC Make It, in conjunction with Morning Consult, recently asked 2,200 U.S. adults which of the following would you say most contributes to your credit card debt:



WHAT AFFECTS BORROWING FOR DISCRETIONARY PURCHASES?

FACTORS DRIVING BORROWING

- Consumer characteristics¹
(e.g., age, income, household size, education, time horizon)
- Terms of the debt instrument²
(e.g., interest rates, credit limit, repayment options)
- Underlying purchase



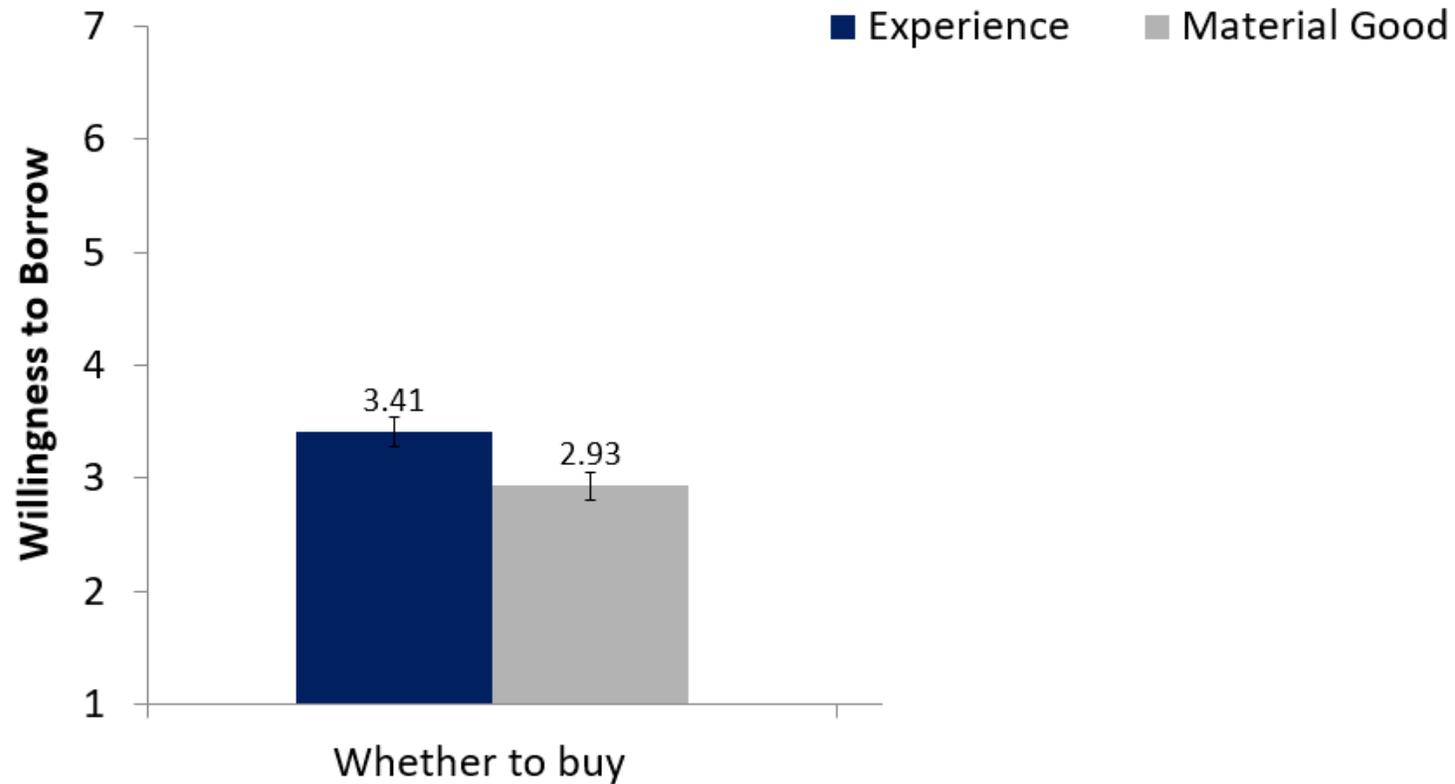
¹Godwin 1998; Kim and DeVaney 2001; Zhu and Meeks 1994; ²Gross and Souleles 2002; Soman and Cheema 2002

CONTEXT-DEPENDENT DRIVERS OF WILLINGNESS TO BORROW



Tully and Sharma (2018), "Context-Dependent Drivers of Willingness to Borrow," *Journal of Consumer Research*

RECONCILING CONFLICTING FINDINGS



Tully and Sharma (2018), *Study 7*

GROWING ARRAY OF DEBT TYPES



FLEX
loan

DEFINITION OF (ALL) DEBT

“Something, typically money, that is owed or due.”

– Oxford dictionaries

“Debt is an amount of money borrowed by one party from another.”

– Investopedia



PSYCHOLOGICAL OWNERSHIP

The extent to which a target feels like “mine”



PRIOR RESEARCH: PSYCHOLOGICAL OWNERSHIP



PSYCHOLOGICAL OWNERSHIP OF MONEY

The extent to which money feels like “mine”



Not Mine

Mine

WHY PEOPLE MAY THINK OF BORROWED MONEY AS “THEIR” MONEY

Accessing future earnings:

- People sometimes use credit limit as a signal of future earnings (Soman and Cheema 2002)

Perceived autonomy:

- Once consumers borrow, they often have autonomy over how to spend the funds, and autonomy is a factor known to influence psychological ownership in other domains (e.g., Liu et. al 2011; Pierce, O’Driscoll, and Coghlan 2004).

Producing desired outcomes:

- Borrowed money may help produce desired consumption goals, and ability to produce desired outcomes helps explain psychological ownership of possessions (e.g., Pierce, Kostova, and Dirks 2003).

PERCEPTIONS OF DEBT OBLIGATIONS

Indebtedness is an aversive state, and people view obligations as unfavorable and burdensome (Goei, Lindsey, Boster, Skalski, and Bowman, 2003; Prelec and Loewenstein 1998). Hence:

Funds that feel more like they belong to you should increase willingness to use debt.

Conversely, funds that feel less like they belong to you (more like they belong to a lender) should decrease willingness to use debt.

OVERVIEW OF STUDIES

- Psychological ownership of borrowed money across individuals

- Study 1a: Amazon credit card offer
- Study 1b: AMEX personal loan offer

- Psychological ownership across debt types

- Study 2: Psychological ownership across debt types
- Study 3: Perceptions of access to credit vs. loans
- Study 4: Interest in FLEX credit lines vs. FLEX loans via psychological ownership
- Study 5: Manipulating psychological ownership
- Study 6: Online search behavior

STUDY 1A: PSYCHOLOGICAL OWNERSHIP ACROSS INDIVIDUALS



Examining potential individual differences in psychological ownership of borrowed money, and their ability to predict differences in responses to debt offers.

N = 205 on Prolific Academic, Pre-registration: <http://aspredicted.org/blind.php?x=ni2c56>

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Representative
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DOES PSYCHOLOGICAL OWNERSHIP OF BORROWED FUNDS PREDICT INTEREST IN APPLYING FOR A NEW CREDIT CARD?

INTEREST MEASURES

Interest in applying for the credit card
(1 = not at all interested, 9 = very interested)

Concern about repaying any funds spent
(1 = a little concerned, 9 = extremely concerned)

MEASURING PSYCHOLOGICAL OWNERSHIP

(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)

MEASURING OBJECTIVE UNDERSTANDING

(1) “Would money that you spend from this credit card have to be repaid?”
(Yes / No / Not sure)

(2) “Would money that you spent from the credit card, and don't repay quickly, accrue interest charges?” (Yes / No / Not sure)

POSSIBLY RELATED CONSTRUCTS

Debt aversion: 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)

Propensity to plan for money—short run scale (Lynch et. al, 2010)

Propensity to plan for money—long run scale (Lynch et. al, 2010)

Self-control scale (13 items, Tangney, Baumeister, and Boone 2004)

Financial literacy (3 items, Lusardi and Mitchell 2011)

Materialism scale (6 items, Richins 2004)

Discount rates (15 item intertemporal choice titration task)

RESULTS: PSYCH OWNERSHIP PREDICTS INTEREST IN APPLYING

5 measures of psychological ownership loaded onto a single factor and were combined ($\alpha = .85$).

Range: 1 to 9

Mean: 3.72, SD: 2.08

Greater psychological ownership of borrowed money predicted higher interest in applying for the offer:

$$B = .48, t(204) = 6.75, p < .001.$$

RESULTS: NOT JUST DIFFERENCES IN OBJECTIVE UNDERSTANDING

96% understood that money spent with a credit card needs to be repaid

91% understood that money that was not repaid quickly would accrue interest charges.

RESULTS: RELATION TO OTHER FACTORS

Psychological ownership was:

Negatively correlated with planning for the short-term ($r = -.19, p = .008$)

Positively correlated with materialism ($r = .15, p = .034$).

Next, 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).

RESULTS: PSYCH OWNERSHIP ADDS PREDICTIVE ABILITY

Model				t	Sig.
		B	SE		
Block 1 (R ² = .085)	(Constant)	2.460	.766	3.212	.002
	Discount Rate	.211	.073	2.902	.004
	Debt Aversion	-.934	.415	-2.250	.026
	Materialism	.447	.200	2.235	.027

RESULTS: PSYCH OWNERSHIP PREDICTS REPAYMENT CONCERN

Greater psychological ownership of borrowed money predicted reduced repayment concern

$$B = -.27, t(204) = -2.25, p = .026$$

RESULTS: PSYCH OWNERSHIP ADDS PREDICTIVE ABILITY

Model				t	Sig.
		B	S.E.		
Block 1	(Constant)	4.303	.685	6.283	.000
(R ² = .043)	Planning ST	.467	.155	3.014	.003

STUDY 2: PSYCHOLOGICAL OWNERSHIP ACROSS DEBT TYPES

Examining potential systematic differences in psychological ownership of money across debt forms

N = 604 Murkers, Pre-registration: <https://aspredicted.org/blind.php?x=4vx9xi>

INDEPENDENT VARIABLE: DEBT TYPE

Imagine that in addition to your current savings, checking, and credit card accounts, your bank gives you an additional [credit card / line of credit / loan / payday loan].

With this [credit card / line of credit / loan / payday loan], you can spend up to \$500. You can pay back as little or as much as you would like within one month. Any remaining balance will incur a 15% interest rate.

DEPENDENT VARIABLE: PSYCHOLOGICAL OWNERSHIP ($\alpha = .84$)

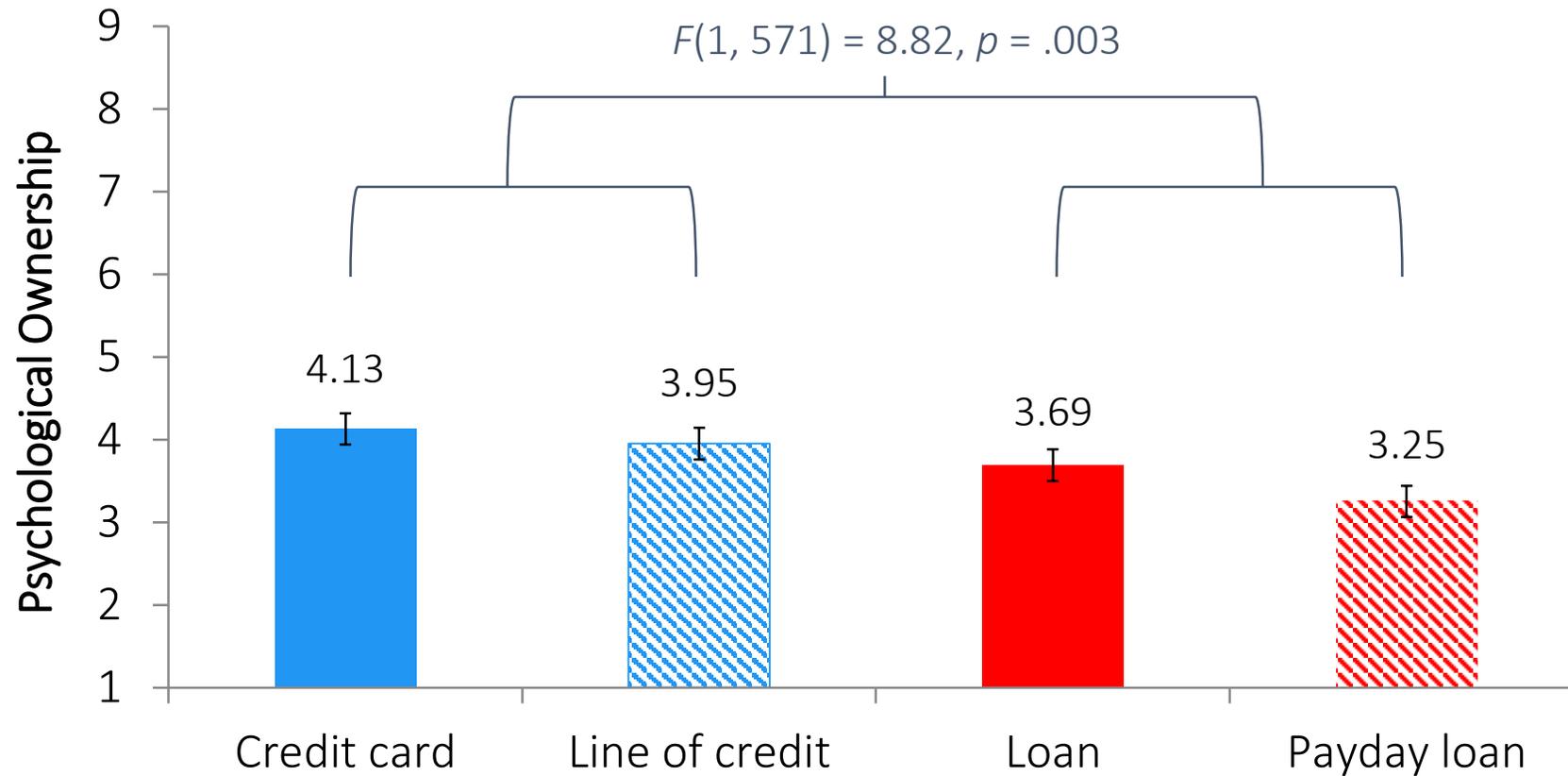
(1) “I would feel like the [debt type] money is my money”

(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”

(9-point scales, 1 = completely disagree, 9 = completely agree).

STUDY 2: RESULTS



$F(3, 571) = 3.90, p = .009$

STUDY 3A: VISUAL REPRESENTATIONS OF PSYCHOLOGICAL OWNERSHIP

Examine differences in psychological ownership across loans and credit lines using a visual representation.

N = 162 students at Dartmouth College

ACCESS TO FUNDS IN THE FORM OF A [LINE OF CREDIT / LOAN]

These funds:

...would completely feel like they belong to another entity



1

2

3

4

5

6

7

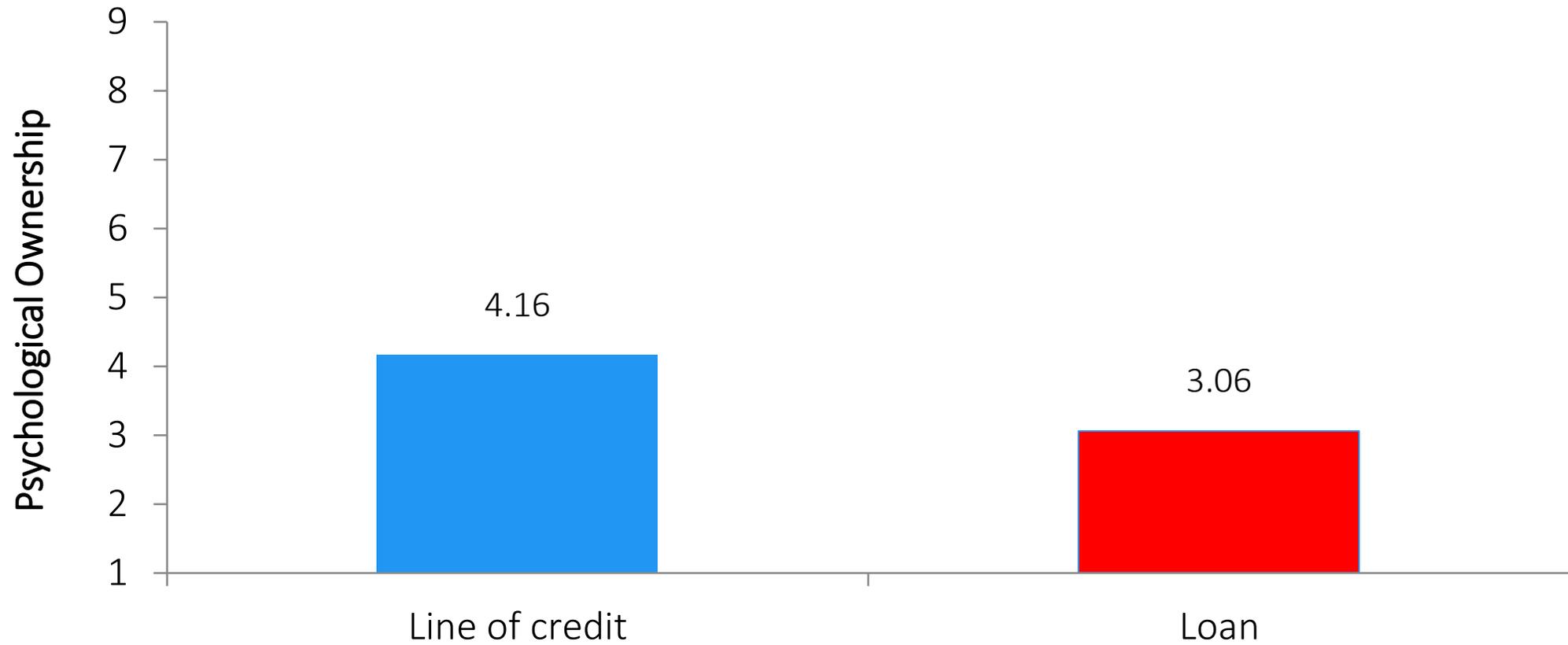
8

9

...would completely feel like they are mine to spend



RESULTS: PSYCHOLOGICAL OWNERSHIP



$F(1, 160) = 13.47, p < .001$

STUDY 3B: VISUAL REPRESENTATIONS OF PSYCHOLOGICAL OWNERSHIP

Examine differences in psychological ownership across loans and line of credit using visual representations.

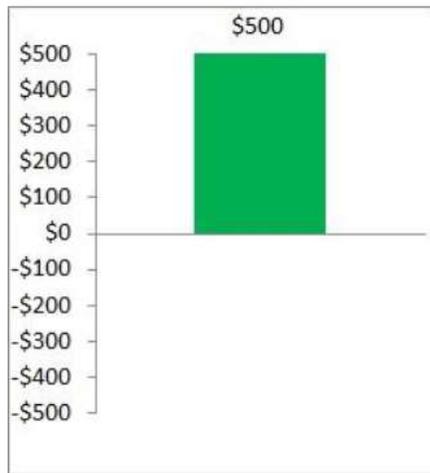
N = 602 on Mturk

CONCEPTUAL REPLICATION

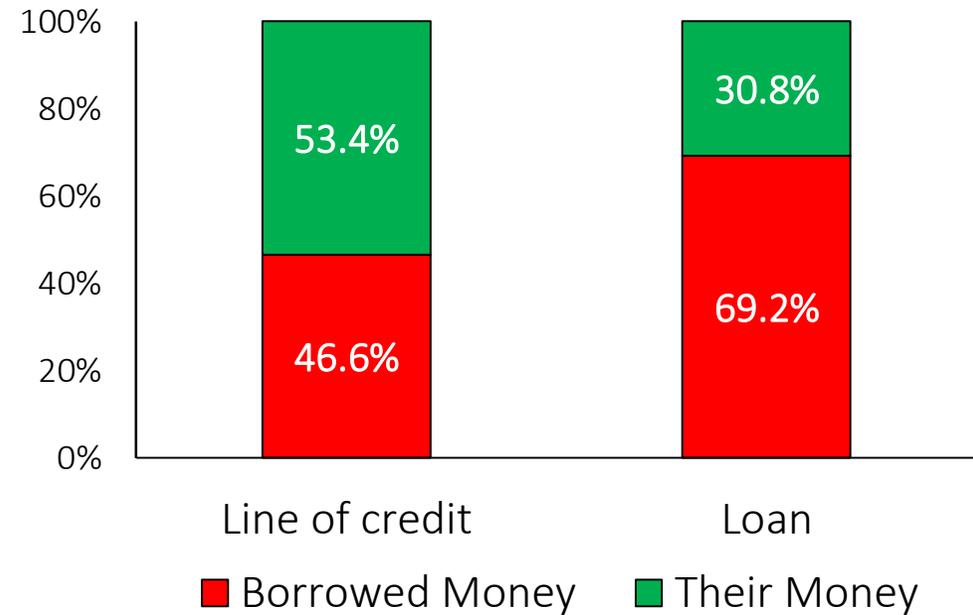
“Imagine that in addition to your current savings, checking, and credit card accounts, your bank gives you an additional \$500 [**line of credit / loan**]. With this [**line of credit / loan**], you can spend up to \$500 per month. You can pay back as little or as much as you would like. Any remaining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

CONCEPTUAL REPLICATION (STUDY 3B)

GRAPHICAL REPRESENTATION



RESULTS



$$\chi^2(1) = 31.92, p < .001$$

STUDY 4:

“FLEX” LOANS VS. CREDIT

(1) Isolate the impact of psychological ownership from differences in debt structure and objective understanding of debt types. (2) Examine whether psych ownership can explain differences in debt uptake interest across debt types.

N = 503 on Prolific Academic, Pre-registration: <https://aspredicted.org/blind.php?x=is4s3z>

ASK ABOUT OUR

FLEX LOAN!



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Need More Cash?

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Midwest Title Loans

Kansas Flex Loan

"Its there When You Need it"

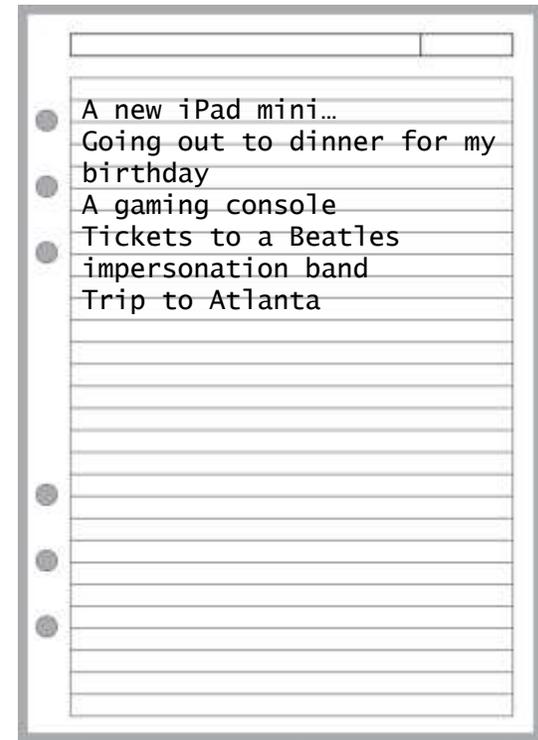


Citi® Flex Loan



THINK OF A PURCHASE

Think about a fun but unnecessary purchase that they wanted to make for themselves that would cost between \$50 - \$1000.



A list of purchase ideas, each preceded by a radio button. The list is contained within a rectangular frame with a double-line border. The items are:

- A new iPad mini...
- Going out to dinner for my birthday
- A gaming console
- Tickets to a Beatles impersonation band
- Trip to Atlanta

Below these items are several empty lines, each with a radio button, for additional entries.

INDEPENDENT VARIABLE: FLEX LOAN VS. FLEX CREDIT

A flex **[loan/ credit]** gets you the right amount of cash for every situation and gives you the flexibility and control you need. A flex **[loan/ credit]** gives you the ability to apply once and withdraw cash at any time (up to a specified limit). With a flex **[loan/ credit]**, you pay it back at your own pace, with conveniently scheduled payments, or installments.

Flex **[loan/ credit]** 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 **[loan/ credit]** due dates, if you have used any portion of the **loan**, you will have the option to pay only a minimum amount due or pay an additional amount so you can pay down your **[loan/ credit]** balance quicker. There's never any late fees. This is a **revolving [loan/ credit]**, 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 **[loan/ credit]** limit. You can pay off your **[loan/ credit]** early without penalty. Your **[loan/ credit]** money will be available on a convenient card and can be used wherever Visa/Mastercard are accepted.

DEPENDENT VARIABLE

How willing would you be to consider using this Flex Loan / Flex Credit offer? (9-point scale)

PSYCHOLOGICAL OWNERSHIP ($\alpha = .85$)

(1) I feel like this is my money.

(2) Spending this money feels like accessing my own money early.

(3) Spending this money feels like spending money that's not mine to spend.

(4) To what extent would this Flex [loan/credit] feel like money to be repaid versus my money to spend?

(5) To what extent would spending this Flex [loan/credit] feel like using borrowed money versus your money?

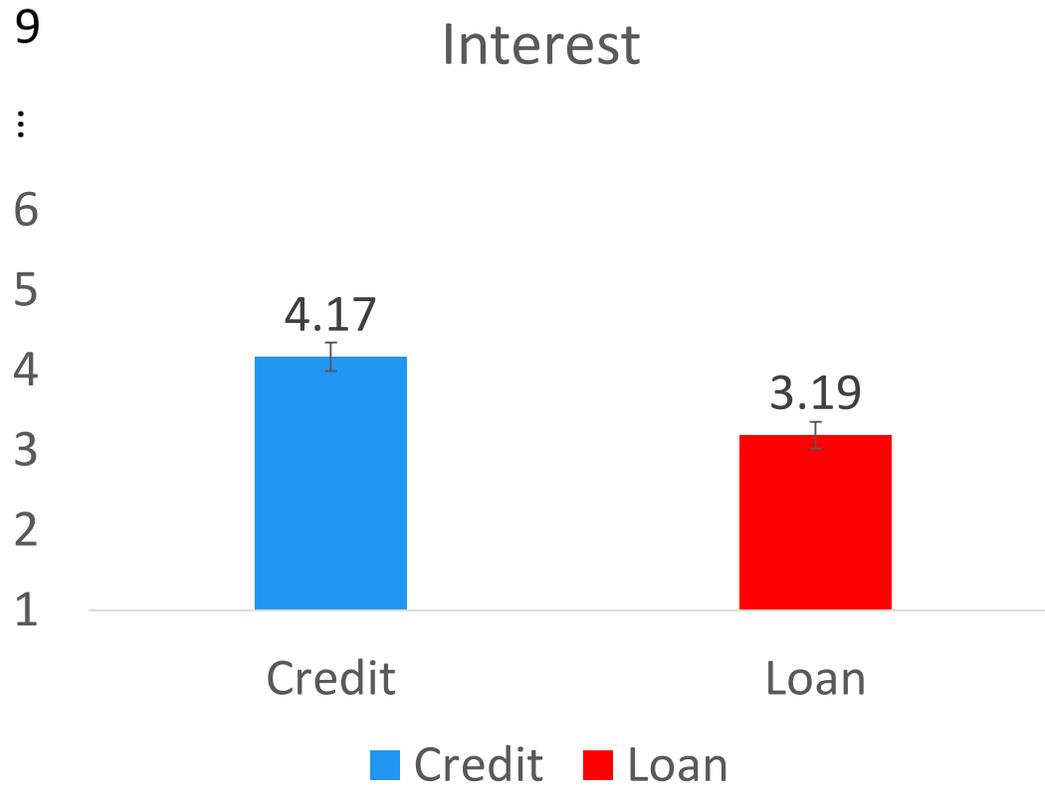
COMPREHENSION CHECKS

To ensure similar understanding across conditions:

- Whether the Flex loan/credit is revolving or not. (98% correct)
- Whether you start paying the Flex loan/credit immediately or only after you have spent the funds. (98% correct)
- Whether the Flex loan/credit is available on a convenient card that is accepted anywhere Visa is accepted. (96% correct).
- Whether they correctly recalled the debt type to which they were assigned (99.6% correct).

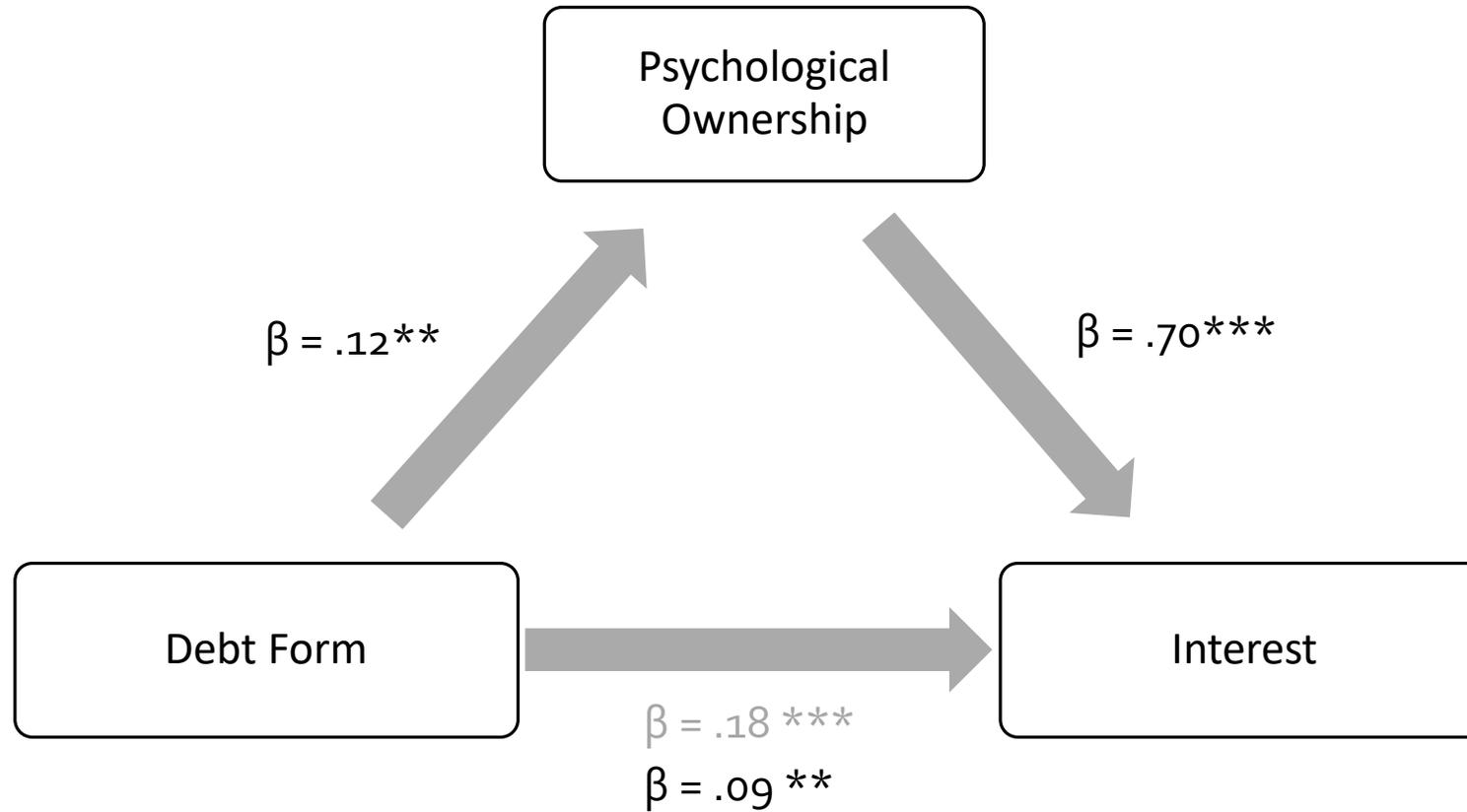
None of the responses varied by condition, $\chi^2 < 1$.

RESULTS



$F(1, 501) = 16.04, p < .001$

MEDIATION



95% CI = .07, .40; 20,000 re-samples

STUDY 5:

MANIPULATING PSYCHOLOGICAL OWNERSHIP

Explore process: If differential interest across debt type is in part driven by differences in psychological ownership, manipulating psychological ownership should impact interest.
2 (debt type: credit vs. loan) X 2 (psychological ownership: control vs. lower)

N = 1607 individuals on Prolific; pre-registration: <https://aspredicted.org/blind.php?x=gj98w5>)

MANIPULATING PSYCHOLOGICAL OWNERSHIP

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.

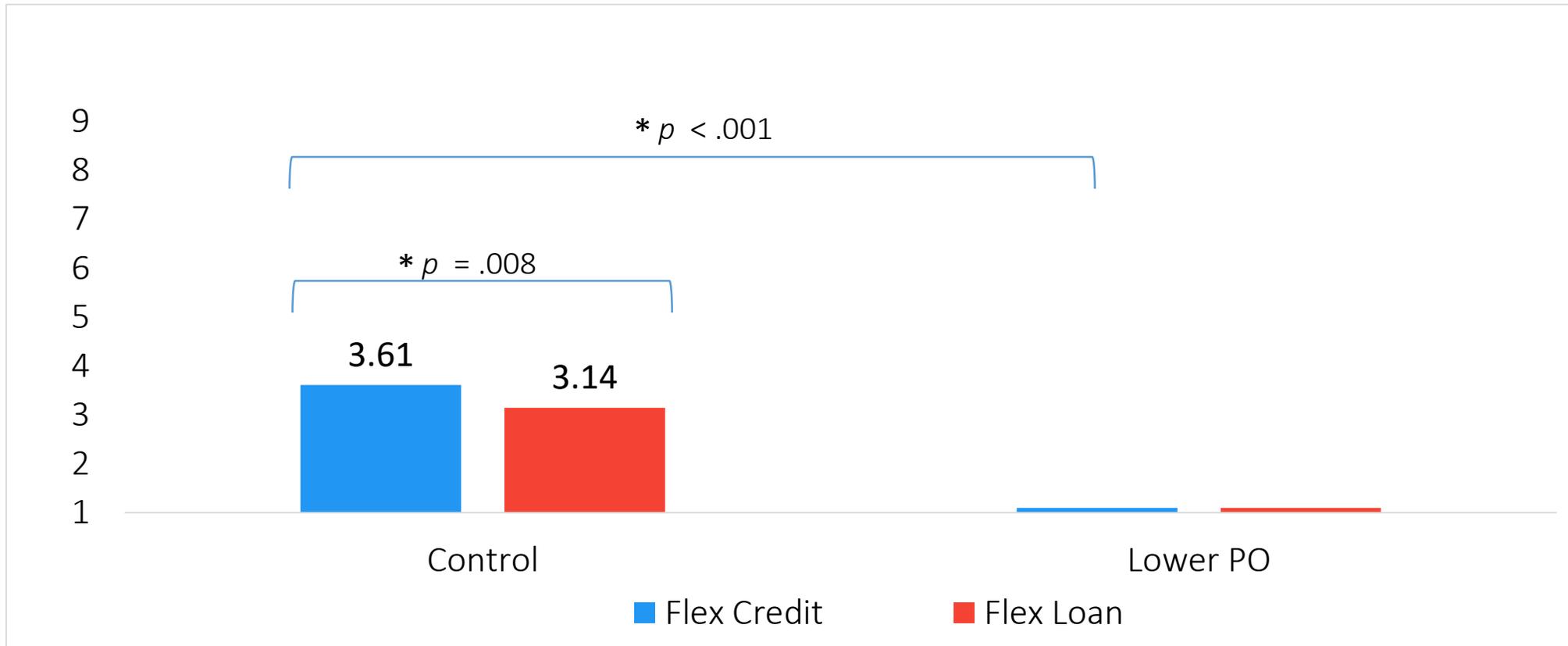
LOWER PSYCHOLOGICAL OWNERSHIP

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.

WILLINGNESS TO USE THE OFFER



STUDY 6: ONLINE SEARCH BEHAVIOR

Examine whether psychological ownership perceptions predict online searches for credit cards and loans

STUDY 6: PAIRS OF SEARCH TERMS*

Higher Psych Ownership		Lower Psych Ownership	
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 ...

Pre-test:

“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).

STUDY 6: PAIRS OF SEARCH TERMS*

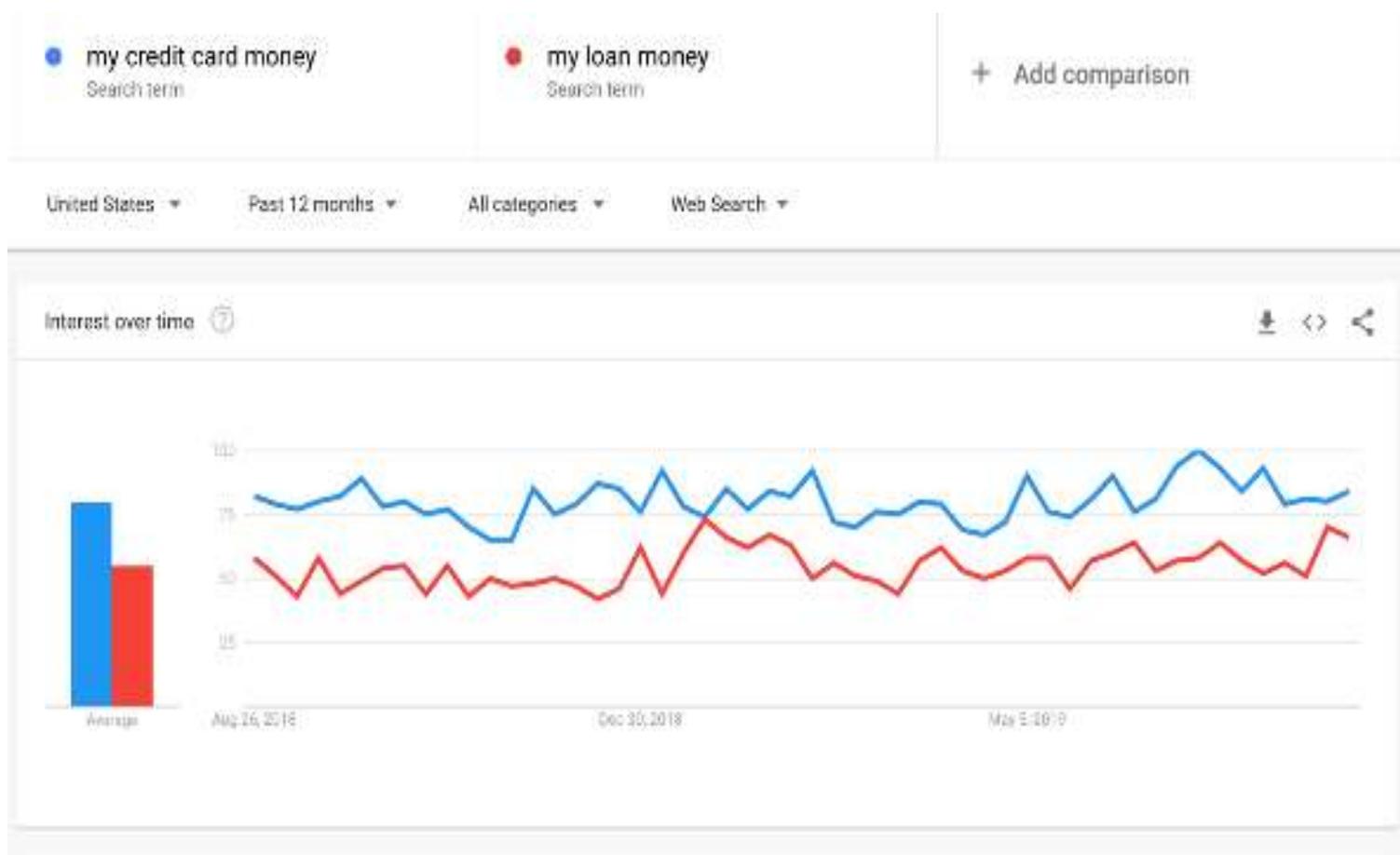
Higher Psych Ownership		Lower Psych Ownership	
1.	my money *	1.	paying off a ...
2.	my cash *	2.	repaying a ... *
3.	my funds *	3.	borrowing on a ... *
4.	money to spend	4.	repayment
5.	spending money	5.	... to repay
6.	my own money *	6.	borrowed money *
7.	... to spend	7.	borrowing *
8.	Spending	8.	debt *
9.	money for me	9.	obligations
10.	spending my... *	10.	repay a ...

As pre-registered, we identified the 5 highest and 5 lowest rated search terms in terms of psychological ownership.

These terms significantly differed from each other in average psychological ownership.

$t(50) = 11.60, p < .001.$

SAMPLE SEARCH TERM PAIR



Each point on the graph represents relative search volume for the given week

ANALYSIS

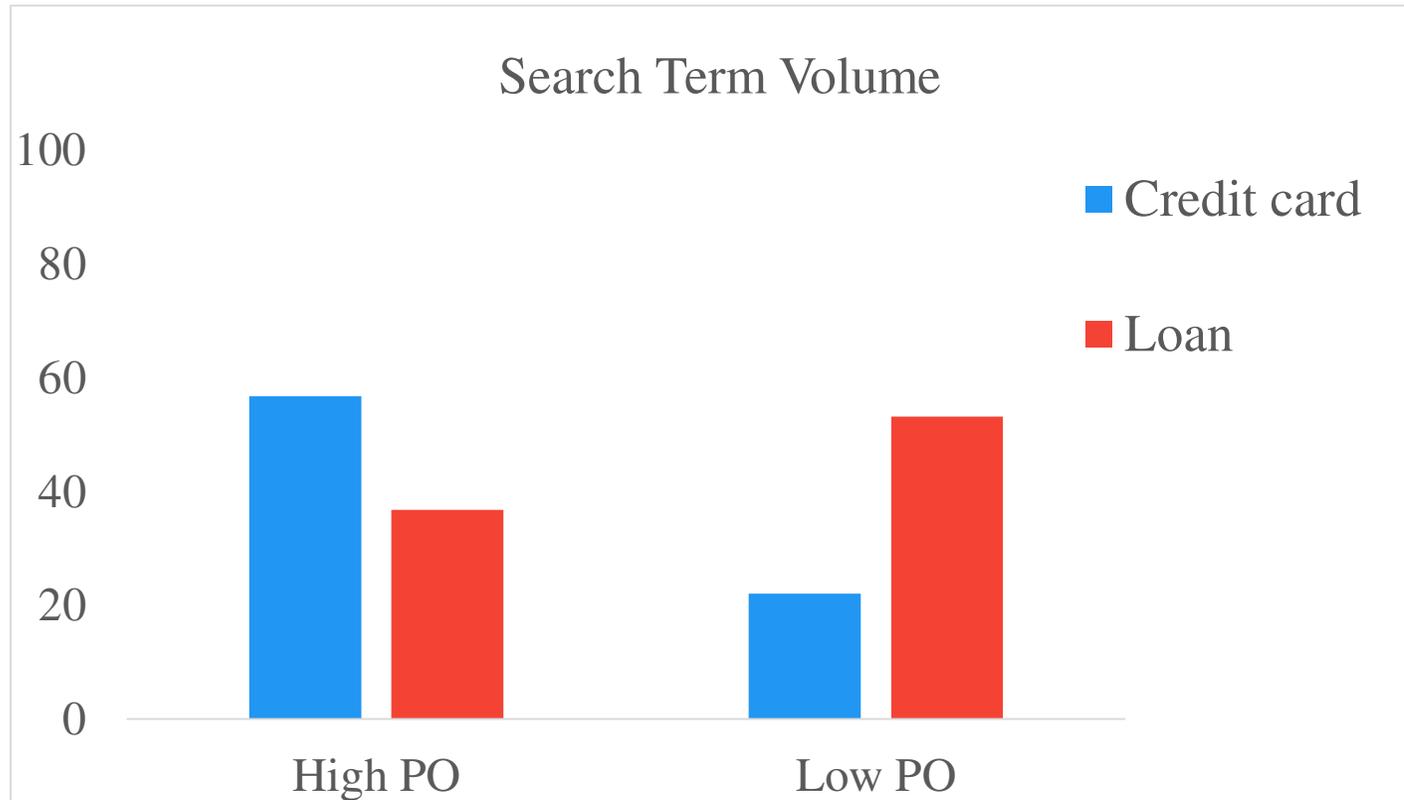
$$\text{Search Volume}_{ijkt} = \beta_1 \text{Debt Type}_{ikt} + \beta_2 \text{Psych Ownership}_{ijk} + \beta_3 \text{Debt Type} * \text{Psych Ownership}_{it} + \alpha_i + \tau_t + \epsilon_{ijkt}$$

Relative search volume of search term i for debt type j with focus k in week t .

Includes 'search term pair' fixed effects, identified as α_i , to account for heterogeneity in search term popularity.

Controlled for week-level heterogeneity via week-level fixed effects, identified by τ_t .

RESULTS: SEARCH TERM VOLUME



- **Credit cards** are searched more often than loans when accompanied by high psychological ownership terms
- **Loans** are searched more often than credit cards when accompanied by low psychological ownership terms

Interaction, $B = 51.45$, $SE = 1.95$, $Wald \chi^2 = 687.72$, $p < .001$

SUMMARY

- People can feel psychological ownership over (borrowed) money
- These feelings vary across people and predict interest in using debt above and beyond established factors.
- These feelings vary across debt forms and can help explain differential interest in using borrowed money across debt forms
- Changing psychological ownership perceptions can impact people's interest in using debt

MENTAL ACCOUNTING RESEARCH

Mental accounting finds that payment form can matter (Hirschman 1982; Prelec and Simester 2001; Raghurir and Srivastava 2008; Soman 2001; Thomas, Desai, & Seenivasan, 2011)

Almost exclusive focus on existing assets

- Cash, checks, debit cards, gift cards

Two key explanations for prior “cash vs. plastic” effects

- Physically parting with cash (Raghurir and Srivastava 2008; Soman 2001; Soman 2003)
- Payment decoupling (e.g., Prelec and Loewenstein 1998; Thaler 1999; Tokunaga 1993)

We demonstrate a new factor that can differ across payment forms and show that this factor predicts differences across payment forms in the realm of debt

SOME OPEN QUESTIONS

What are the key factors that contribute to psychological ownership of borrowed money?

- Familiarity? Autonomy of use? Naming conventions?
Relationship with the lender? Single vs. joint accounts?
Ease of acquisition?

Use vs. Repayment (and other potential behaviors)

What are the similarities and differences across psychological ownership of current assets vs. borrowed assets in terms of resulting behaviors?



IMPLICATIONS

CONSUMER DEBT IN THE U.S.



- Credit card and personal loan debt is over 1 trillion dollars in America.
- Approximately 40% of Americans have credit card debt, with an average balance of \$6,829, and pay an average of \$1,141 in interest each year.
- One out of 11 Americans who have credit card debt believe they will never be free of that debt.

CAN WE IMPROVE CONSUMER BEHAVIOR?

Credit cards generally have higher interest rates than loans



Might labeling bills encourage repayment?



Thank You!

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