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Web Appendix

Table 1. Definition of Financial Scarcity in Previous Literature (2011 – 2021)

Definition	Objective / Subjective Scarcity	Author(s) and Year	Journal
Having low income	Objective	Mani et al. (2020)	Journal of the Association for Consumer Research
		Goldsmith et al. (2020)	Journal of the Association for Consumer Research
		Madrian et al. (2017)	Behavioral Science & Policy
		Carvalho, Meier and Wang (2016)	The American Economic Review
		Shah, Shafir, and Mullainathan (2015)	Psychological Science
		Hall, Zhao and Shafir (2014)	Psychological Science
		Mani, Mullainathan, Shafir, and Zhao (2013)	Science
		Soman and Cheema (2011)	Journal of Marketing Research
Growing up in low socio-economic status (SES) family or having low SES	Objective	Thompson et al. (2020)	Journal of the Association for Consumer Research
, and a second of the second o		Mittal et al. (2020)	Journal of the Association for Consumer Research
		Hansla and Johansson (2020)	Journal of the Association for Consumer Research
		Thompson, Hamilton, and Banerji (2020)	Organizational Behavior and Human Decision Processes
		Yoon and Kim (2018)	Journal of Consumer Research
		Zagorsky and Smith (2017)	Economics and Human Biology
		Fritsche and Jugert (2017)	Current Opinion in Psychology
		Pepper and Nettle (2017)	Behavioral and Brain Sciences
		Mittal and Griskevicius (2016)	Journal of Consumer Research
		Griskevicius et al. (2013)	Psychological Science

		Griskevicius, Tybur, Delton, and Robertson (2011)	Journal of Personality and Social Psychology
Impoverished consumers, being at the bottom of the pyramid	Objective	Hill (2020)	Journal of the Association for Consumer Research
1 3		Martin and Hill (2015)	Journal of Service Research
		Durante, Griskevicius, Redden, and White (2015)	Journal of Consumer Research
		Chaplin, Hill, and John (2014)	Journal of Public Policy & Marketing
		Martin and Hill (2012)	Journal of Consumer Research
		Ordabayeva and Chandon (2011)	Journal of Consumer Research
Amount of debt	Objective	Wilcox, Block, and Eisenstein (2011)	Journal of Marketing Research
		Moty, Ariely, Ayal, Cryder and Rick (2011)	Journal of Marketing Research
Wealth as a function of assets and debt	Objective	Sussman and Shafir (2012)	Psychological Science
Lack of financial means	Objective	Haushofer and Fehr (2014)	Science
A discrepancy between one's current	Subjective	Cannon, Goldsmith, and Roux (2019)	Journal of Consumer Psychology
resource levels and a higher, more		Goldsmith, Roux, and Wilson (2019)	Journal of the Association for
desirable reference point			Consumer Research
Financial deprivation - a psychological state in which people feel financially	Subjective	Sharma and Keller (2017)	Journal of the Association for Consumer Research
inferior relative to a salient comparison standard because they perceive a deficit		Sharma, Mazar, Alter, and Ariely (2014)	Organizational Behavior and Human Decision Processes
in their financial position		Sharma and Alter (2012)	Journal of Consumer Research
Financial constraints are a subjective assessment of one's wealth. In	Subjective	Fan, Li, and Jiang (2019)	Journal of Consumer Research
particular, feeling financially		Paley, Tully and Sharma (2019)	Journal of Consumer Research
constrained results from the belief that one's financial situation restricts his or		Cook and Sadeghein (2018)	Journal of Public Policy & Marketing
her desired consumption or when the consumer has less than she feels she needs		Tully, Hershfield, and Meyvis (2015)	Journal of Consumer Research
Perceived financial well-being is composed of: 1) current money	Subjective	Netemeyer, Warmath, Fernandes, and Lynch, Jr. (2018)	Journal of Consumer Research

management stress; and 2) an expectation of future financial security			
Relative rank of a person's income	Subjective	Briers and Laporte (2013)	Journal of Marketing Research
Having scarce financial resources:	Objective &	Yang and Zhang (2021)	Journal of Consumer Research
Resource scarcity is the real or perceived lack of various forms of capital (i.e.,	Subjective	Hamilton (2021)	Journal of Public Policy & Marketing
financial, social, cultural) or other		Hill and Sharma (2020)	Journal of Consumer Psychology
production inputs (i.e., time) that the consumer invests in order to acquire and		Van Kerckhove et al. (2020)	Journal of the Association for Consumer Research
use goods and services		Salerno et al. (2020)	Journal of the Association for Consumer Research
		Givi and Olivola (2020)	Journal of the Association for Consumer Research
		Viswanathan and Lalwani (2020)	Journal of the Association for Consumer Research
		Hamilton et al. (2019)	Journal of the Academy of Marketing Science
		Mehta and Zhu (2016)	Journal of Consumer Research
		Levontin, Ein-Gar, and Lee (2015)	Journal of Consumer Psychology
		Roux, Goldsmith, and Bonezzi (2015)	Journal of Consumer Research
		Fernbach, Kan, and Lynch, Jr. (2015)	Journal of Consumer Research
		Krosch and Amodio (2014)	National Academy of Sciences
		Shah, Mullainathan, and Shafir (2012)	Science
		Spiller, S. A. (2011)	Journal of Consumer Research
Feeling pressed for money	Objective & Subjective	Lee-Yoon et al. (2020)	Journal of the Association for Consumer Research
Experience of economic recession or hardship	Objective & Subjective	Gennetian and Shafir (2015)	Journal of Policy Analysis and Management
r	Subjective	Kamakura and Du (2012)	Journal of Consumer Research
		Hill, Rodeheffer, Griskevicius, Durante, and White (2012)	Journal of Personality and Social Psychology
		Rodeheffer, Hill and Lord (2012)	Psychological Science

Table 2. Measures used in Studies 1a, 2, and 3a

Measure	Question	Answer options
Study 1a		
Financial scarcity	Do you have enough money to use personally?	1 = never/rarely 2 = sometimes 3 = often 4 = always
Discretionary spending	Does this household have the following items?	1= Sewing machine 2 = Kerosene oil stove 3 = Refrigerator 4 = Telephone 5 = Mobile Phone 6 = Smartphone 7 = Television 8 = Radio 9 = Car/Tractor/Jeep 10 = Clock/ Wristwatch 11 = Cycle 12 = Motorcycle 13 = Satellite 14 = DVD
Income	What is the usual total monthly income of this household	1 = up to Rs 1999 2 = Rs 2000 to Rs 4999 3 = Rs 5000 to Rs 7499 4 = Rs 7500 to Rs 10000 5 = Rs 10001 or more
Demographic o		
Educational attainment	What is the highest school grade/class/standard that you passed?	1 = no formal education 2 = primary 3 = middle 4 = middle but below matric 5 = matric 6 = intermediate/ senior secondary 7 = degree and above
Gender	Respondent's sex	1 = male 2 = female
Family composition	How many members are in your SHG?	(open number)
Caste	Respondent's caste	1 = SC 2 = ST 3 = OBC 4 = General
Religion	Respondent's religion	1 = Hindu 2 = Muslim 3 = Sikh 4 = Christian
Head of the household	Respondent relation to head of household	1 = Self 2 = Other member of household
Additional con		
Stress	Over the past two weeks, how often did you feel stressed?	1 = never/rarely 2 = sometimes 3 = often 4 = always
Innovation in ideas	Do you believe you are open to new ideas? For example, are you open to girls living alone in the city for school or girls working outside the village?	1 = never/rarely 2 = sometimes 3 = often 4 = always

Study 2		
· ·	W	T. 1.1 1 1 1.0 1
Financial scarcity	What was the amount outstanding of debt on 31 December (year) (How much would you have had to	Liabilities to banks and financial companies +
scarcity	repay to extinguish the mortgage)?	Trade debt +
	Did you have any outstanding trade debts or credits at	Liabilities to other households
	31 December (year)? (If "yes") What was the amount	
A4	of the residual debt/credit at 31 December (year)?	Deal arteta
Assets	Let us now talk about some form of savings, often used by households. Can you tell us the approximate value	Real estate + Business equity +
	on 31 December (year)?	Valuables +
	On 31 December (year), did the household have credits	Financial assets +
	with relatives or friends not living with the household?	Deposits +
	(If "Yes") What was the amount?	Government securities +
	Did you have any outstanding trade credits at 31-12-	Other securities +
	(year)? (If "yes") What was the amount of the residual credit at	Trade credit or credit due from other households
	31-12-(year)?	other nouseholds
Discretionary	Did the household have any outstanding loans from	
borrowing	banks, financial companies or other institutions at 31	
	December (year) for the purchase or renovation of your	
	principal residence? - Yes 1 (If "Yes") How many?	
	- 1 es 1 (II 1 es) How many:	
	Loans relating to other properties	
	Did the household have any outstanding loans from	
	banks, financial companies or other institutions at 31	
	December (year) for the purchase or renovation of other	
	properties? - Yes 1 (If "Yes") How many?	
	100 1 (II 100) 110 w many.	
	Let us now talk about other loans, such as consumer	
	credit for the purchase of a specific good, usually	
	obtained at the point of sale, or personal loans and "fifth of salary" loans with no declared specific purpose	
	or any other loan for consumer spending. Again, do not	
	consider any loans connected with your business. At	
	the end of (year) did the household have debts with	
	banks or financial companies or for instalment	
	payments?	
	(If "Yes") How many? c) loans for the purchase of motor vehicles (car, etc.)	
	d) loans for the purchase of furniture, household	
	appliances, etc.	
Non-	Let us now talk about other loans, such as consumer	
discretionary	credit for the purchase of a specific good, usually	
borrowing	obtained at the point of sale, or personal loans and "fifth of salary" loans with no declared specific purpose	
	or any other loan for consumer spending. Again, do not	
	consider any loans connected with your business. At	
	the end of (year) did the household have debts with	
	banks or financial companies or for instalment	
	payments?	
	(If "Yes") How many? e) loans for the purchase of other goods or for daily	
	expenses	
	f) loans for education (university, master's)	
Demographic o		
Family	The household comprised persons, including	(open number)
composition	children	

Number of income earners	Was (name) employed in (year)? That is, was he/she in paid employment? Refer to the situation in most of (year).	Sum of 1 = yes (vs. 0 = no)
Study 3a		
Financial scarcity	How much was owed on the individual loans at the end of the last year? - Amount of the building society loan at 31.12.(year) - Amount of the mortgage at 31.12.(year) - Amount of the consumer credit loan at 31.12.(year) - Amount of the family loan at 31.12.(year) - Amount of the other loans at 31.12.(year)	(Amount)
Income	What is the net average monthly income that you and your partner have received from all these sources in (year) after paying tax and social insurance contributions?	(Amount) Total net average income per month in the year (X):
Savings	Could you tell us how much money you and your partner together have saved in the year (X)?	(Amount) Savings in the year (X)
Assets	Did you or your partner own one of the following types of asset in December (year)? If so, please state the balance of your assets at the beginning and at the end of the year. - Savings investments such as savings accounts, term accounts or savings plans - Building society savings agreements which have not yet been converted into a loan - Whole life insurance policies, including "dowry" schemes, education insurance and death benefits. - This is not meant to include purely term life insurance policies or direct insurance policies provided via your employer. - Bonds, e.g. saving bonds, mortgage debentures, Federal savings bonds, public sector debentures, corporate bonds pension fund units - Shares and real-estate funds, including listed funds, mixed funds or similar investments - Other assets, e.g. reverse convertible bonds discount	(Amount)
Optimistic	certificates, hedge funds, film funds, wind energy funds and other financial innovations We would now like to know a little about your views on future developments. Please indicate, according to a	0 means very negative 10 means
future perceptions	on future developments. Please indicate, according to a scale of 1 to 10. 0 means very negative 10 means very positive. - The economic development of Germany - Your own financial situation - Your own health situation - The health situation of your partner	very positive.
Impulsiveness	To what extent do the following statement applies to you? Please respond using a scale where 0 means totally unimportant and 10 means very important. When I was a child, I used to spend my pocket money immediately	0 means totally unimportant and 10 means very important.
Demographic q		
Age	In which year were you born?	27.1
Gender (1 = male)	Are you	Male Female

Married (1 = yes, 0 = no)	What is your marital status?	Married/living with husband/wife Separated Single Divorced Widowed
Have children (1 = yes, 0 = no)	Have you or your partner any children or stepchildren?	Yes No
Higher education (1 = yes, 0 = no)	What is the highest general school or college leaving certificate held by you or your partner?	1. Elementary school leaving examination (Hauptschul-/Volksschulabschluss) 2. Junior high school leaving examination (Mittlere Reife/Realschulabschluss) 3. Year 10 leaving examination (Abschluss Polytechnische Oberschule, 10. Klasse) 4. Entrance standard for higher education (Fachhochschulreife) 5. General senior high school leaving certificate or comparable certificate for University of Applied Sciences (Abitur)
Unemployed (1 = yes, o = no)	At this present time, do you and your partner work? When we say "employment", we mean any paid work or work generating an income, regardless of how many hours this is. Which of the following statements is most applicable to you and your partner?	1. Full-time employment working 35 hours or more a week 2. Part-time employment working at least 15 hours but less than 35 hours per week 3. Low level of employment, working less than 15 hours per week 4. Casual work 5. Not employed at all

Table 3. Study 1a - Odds ratios (95% confidence intervals) in logistic regressions predicting the effect of financial scarcity on discretionary spending

	Discretionary Spending (Smart phone)	Discretionary Spending (Smart phone or DVD)	Discretionary Spending (Smart phone)	Discretionary Spending (Smart phone or DVD)
	Model 1	Model 2	Model 1a	Model 2a
	(with controls)	(with controls)	(without controls)	(without controls)
VARIABLES				
Financial scarcity	0.405**	0.309*	0.23	0.118
	(0.173)	(0.160)	(0.16)	(0.148)
Education	0.270***	0.228***		
	(0.0751)	(0.0710)		
Family composition	-0.0688	-0.000881		
-	(0.0506)	(0.0424)		
Income	0.480***	0.507***		
	(0.141)	(0.129)		
Male (vs. female)	0.0592	0.284		
	(0.349)	(0.326)		
Caste	-0.0547	0.0150		
	(0.168)	(0.160)		
Religion	0.472***	0.445**		
	(0.183)	(0.182)		
Head of household (vs. not)	0.0508	-0.0218		
	(0.336)	(0.312)		
constant	-5.504***	-6.287***		
	(1.179)	(1.078)		
Observations	1,106	1,106	1,106	1,106

Note: Standard errors in parentheses *** p < .001, ** p < .01, * p < .05

Table 4. Study 1b – The interactive effect of financial scarcity (vs. control) and discretionary (vs. non-discretionary) service condition on attitudes toward the brand

	Attitudes toward the brand	Attitudes toward the brand
VARIABLES	Model 1	Model 2
VIIII IDEES	Wiodel 1	Wiodel 2
Financial scarcity * Discretionary	0.841***	0.561**
expenditure	(0.266)	(0.252)
Financial scarcity	-0.596***	-0.311*
(1= Financial scarcity, 0=control)	(0.184)	(0.173)
Discretionary expenditure	-0.0114	0.104
(1=discretionary, 0=nondiscretionary)	(0.155)	(0.142)
Gender	0.197	
(male=1)		
	(0.128)	
Age	0.00177	
	(0.00596)	
Income	1.63e-07	
	(8.09e-07)	
Health problem	0.0818***	
	(0.0295)	
Constant	5.038***	5.564***
	(0.307)	(0.102)
Observations	310	390
R-squared	0.080	0.028

Note: Standard errors in parentheses, *** p < 0.01, ** p < 0.05, * p < 0.1

Study 1b Stimuli

Discretionary Service Condition



Non-discretionary Service Condition



 $Table\ 5.\ Study\ 2\ -\ Results\ of\ regression\ predicting\ the\ relationship\ between\ financial\ scarcity\ and\ discretionary\ borrowing.$

VARIABLES	Discretionary borrowing Model 1	Non-discretionary borrowing Model 1	Discretionary borrowing Model 1a	Non-discretionary borrowing Model 2a
Financial scarcity (ln)	0.0781***	0.00433***	0.0876***	-0.00204***
• • • • • • • • • • • • • • • • • • • •	(0.00155)	(0.000660)	(0.00125)	(0.000546)
Savings (ln)	0.0136***	-0.0180***		
_	(0.00169)	(0.000719)		
Assets (ln)	-0.00234	-0.00195**		
	(0.00213)	(0.000914)		
Household composition	0.00411*	-0.000875		
•	(0.00221)	(0.000933)		
Percentage of incomers in household	0.00994***	0.000378		
	(0.00316)	(0.00135)		
Constant	-0.105***	0.278***	-0.0597***	0.101***
	(0.0252)	(0.0107)	(0.0138)	(0.00607)
Observations	39,083	39,083	53,284	53,284

Note: Standard errors in parentheses, *** p < 0.01, ** p < 0.05, * p < 0.1

Table 6. Study 3a - Results of regression analyses predicting the effect of financial scarcity on discretionary spending and discretionary investing behavior

	Investing	Placing whole	Investing	Placing whole
	5% in shares	day's income on a	5% in shares	day's income on a
		bet		bet
VARIABLES	Model 1	Model 2	Model 1a	Model 2a
Financial scarcity	0.0120*	0.0140**	0.0308***	0.0267***
	(0.00638)	(0.00561)	(0.00610)	(0.00531)
Income	0.289***	0.153***		
	(0.0441)	(0.0389)		
Savings	0.0568***	0.0190***		
	(0.00766)	(0.00675)		
Assets	Omitted for	Omitted for		
	multicollinearity	multicollinearity		
Age	0.0147***	0.0200***		
	(0.00223)	(0.00197)		
Gender $(1 = male)$	-0.709***	-0.362***		
	(0.0670)	(0.0589)		
Married $(1 = yes, 0 = no)$	-0.0655	-0.143**		
	(0.0729)	(0.0642)		
Have children $(1 = yes, 0)$	0.0588	0.0509		
= no)				
	(0.0836)	(0.0736)		
Higher education $(1 = yes,$	0.353***	0.237***		
0 = no				
	(0.0725)	(0.0638)		
Unemployed $(1 = yes, o =$	0.00721	0.0969		
no)				
	(0.0742)	(0.0654)		
Constant	-0.717**	-0.912***	2.148***	1.246***
	(0.366)	(0.323)	(0.0570)	(0.0486)
Observations	8,933	8,933	8,933	8,933
Number of groups	6,091	6,091	6,091	6,091

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 7. Study 3b – Effect of financial scarcity on discretionary spending

	Discretionary	Discretionary
	spending	spending
VARIABLES	Model 1	Model 2
Financial scarcity	0.312*	0.363**
Tillalicial scarcity	(0.177)	(0.181)
Race	0.348	(0.101)
(white = 1)	(0.384)	
Race	0.635	
(black = 1)	(0.510)	
Race	0.0414	
(Native American=1)	(0.557)	
Race	-0.126	
(Asian = 1)	(0.374)	
Sexual orientation	0.271	
(heterosexual=1)	(0.390)	
Sexual orientation	0.930	
(homosexual=1)	(0.564)	
Sexual orientation	0.902**	
(bisexual=1)	(0.446)	
Male	-0.0434	
Wate	(0.181)	
Ago	-0.0155*	
Age	(0.00828)	
State of residence	-0.00249	
State of Testuelice	(0.00468)	
Political orientation	0.157***	
Fontical offentation	(0.0472)	
Income	-0.0123	
meome	(0.0289)	
Employed	0.431	
Employed	(0.268)	
Educational attainment	0.0878	
(degree=1)	(0.219)	
Constant	2.598***	3.460***
Constant	(0.703)	(0.118)
	(0.703)	(0.110)
Observations	231	231
R-squared	0.164	0.017
N-squared	U.1UT	0.017

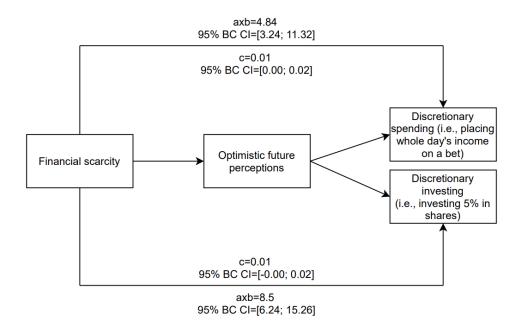
Note: Standard errors in parentheses, *** p < 0.01, ** p < 0.05, * p < 0.1

 $Table\ 8.\ Study\ 3b-Mediating\ effect\ of\ optimistic\ future\ perceptions\ on\ the\ effect\ of\ financial\ scarcity\ on\ discretionary\ spending$

	DV: Discretionary	DV: Optimistic future	DV: Discretionary
	spending	perceptions	spending
VARIABLES	c-path	a-path	b-path and c'-path
Financial scarcity	0.312*	0.403**	0.169
•	(0.177)	(0.179)	(0.168)
Optimistic future	,	,	0.354***
perceptions			
			(0.0631)
Race	0.348	0.339	0.228
(white = 1)	(0.384)	(0.389)	(0.360)
Race	0.635	0.540	0.444
(black = 1)	(0.510)	(0.515)	(0.478)
Race	0.0414	0.371	-0.0896
(Native American=1)	(0.557)	(0.563)	(0.522)
Race	-0.126	0.312	-0.236
(Asian = 1)	(0.374)	(0.378)	(0.351)
Sexual orientation	0.271	0.0165	0.265
(heterosexual=1)	(0.390)	(0.394)	(0.365)
Sexual orientation	0.930	0.131	0.883*
(homosexual=1)	(0.564)	(0.570)	(0.528)
Sexual orientation	0.902**	-0.187	0.968**
(bisexual=1)	(0.446)	(0.451)	(0.418)
Male	-0.0434	0.106	-0.0811
	(0.181)	(0.183)	(0.169)
Age	-0.0155*	-0.00434	-0.0139*
	(0.00828)	(0.00837)	(0.00776)
State of residence	-0.00249	-0.00264	-0.00156
	(0.00468)	(0.00473)	(0.00438)
Political orientation	0.157***	0.127***	0.112**
	(0.0472)	(0.0477)	(0.0449)
Income	-0.0123	-0.0258	-0.00321
T 1 1	(0.0289)	(0.0292)	(0.0271)
Employed	0.431	0.157	0.375
E44'1-4-'	(0.268)	(0.271)	(0.251)
Educational attainment	0.0878	0.143	0.0372
(degree=1)	(0.219)	(0.221)	(0.205)
Constant	2.598***	2.794***	1.611**
	(0.703)	(0.711)	(0.682)
Observations	231	231	231
R-squared	0.164	0.077	0.271
1x-squareu	0.107	0.077	0.2/1

Note: Standard errors in parentheses, *** p < 0.01, *** p < 0.05, * p < 0.1

Figure 1. Study 3a - Mediating effect of optimistic future perceptions on discretionary spending and discretionary investing



Notes

Study 1b

Participants answered the following attention check question: "It is important that you pay attention to this survey. Please tick "strongly disagree"." The responses of those participants that failed the attention check question are removed from the analyses.

Study 2

Student loans, which are educational costs, are nondiscretionary expenses because they are part of fixed expenses (https://www.thebalance.com/discretionary-expense-definition-1293678).

Study 3a

Betting is considered to be a proxy for discretionary spending because it is an expense that is incurred at the discretion of the consumer (<u>Millennials Spending Less Money 'On The Casino Floor'</u> | by Fitch | Why? Forum | Medium).

Investing is considered to be a discretionary expense because it is incurred at the discretion of the consumer (Retrieved from: Discretionary Investment Management).