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Who is Nudgeable?

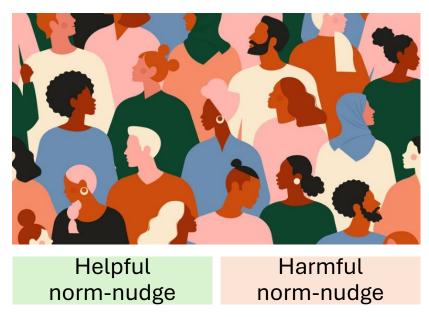
Financial Scarcity as a Moderating Factor of Nudge Effectiveness in Financial Decisions

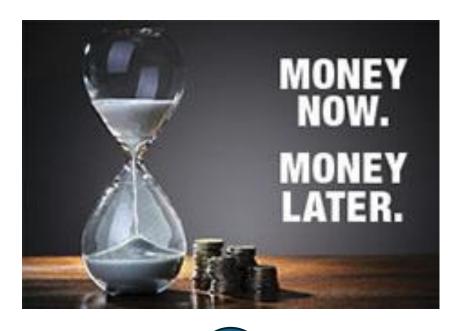
PIER Research Workshop 27-28 June 2567

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Is perceived financial scarcity a moderating factor in a norm-nudge's impact on financial decisions?













1 Scarcity mindset

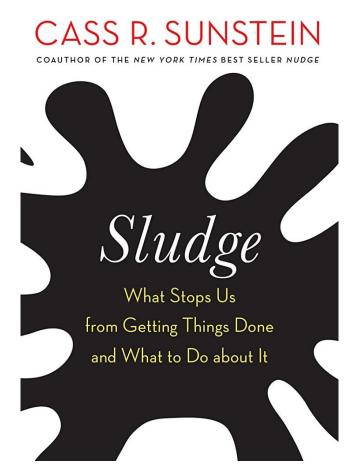
- feeling of having less of a resource than need (e.g., money and time)
- making suboptimal decisions due to heightened stress and cognitive strain
- negatively impact financial outcomes by increasing time discounting (Haushofer et al., 2014; Carvalho et al., 2016;
 - Bartos et al., 2018; Ong et al., 2019)



Nudge is helpful, but can nudge be harmful?

The terms "helpful-nudge" and "harmful-nudge" are used in a way that is closely related to **Sunstein's (2020)** contrast between "nudge" and "sludge."

	Low friction	High friction
Good	Helpful nudge	Deliberative promoting nudge
Bad	Harmful nudge	Sludge



Financial decision: Money now vs Money later

No Nudge (Control)

You get a chance to win a lottery of £100, you have an option to receive part or all of the money today.

Or you can choose to receive part or all of the money a month from now with a 25% bonus

Helpful Norm-nudge (Treatment 1)

According to previous studies, some people may prefer to receive more money later to get the bonus.

Harmful Norm-nudge (Treatment 2)

According to previous studies, some people may prefer to **receive more money now.**

Financial Decision



If you win, how would you like to receive the prize?

Receive today ...%

Receive next month ...%

Individuals with high perceived financial scarcity are **expected** to be relatively more nudgeable

Experimental Design: 2x3 Between-subject design (n = 1,202) Pre-registered online experiment (UK sample)

Randomly assigned participants to either 'low scarcity' condition or 'high scarcity' condition 1 (Burlacu et al., 2021) High Low 2 Scarcity Scarcity n = 602n = 6003 Manipulation check Harmful Helpful Helpful Harmful Norm-Control norm-Control Normnormn = 187nudge n = 213nudge nudge nudge n = 211n = 204n = 197 n = 190

Demographic survey (including self-report financial worry level)

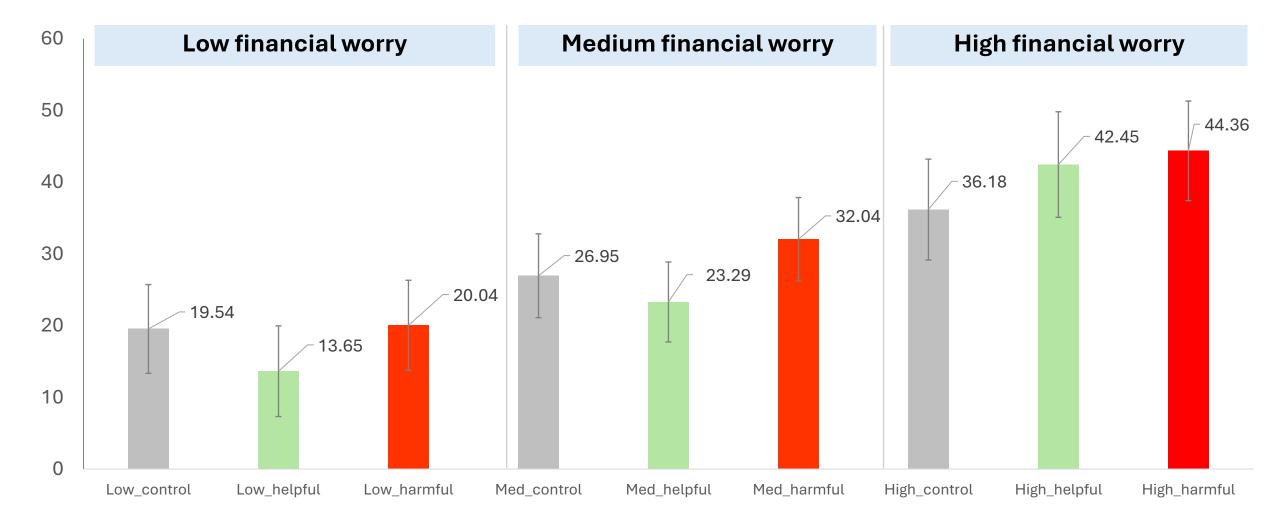
Self-report financial worry level (Subjective financial worry)

Subjective financial worry	n	Percent
1 not at all worried	107	8.9
2 not that worried	298	24.79
3 somewhat worried	482	40.1
4 worried	189	15.72
5 very worried	126	10.48
Total	1,202	100

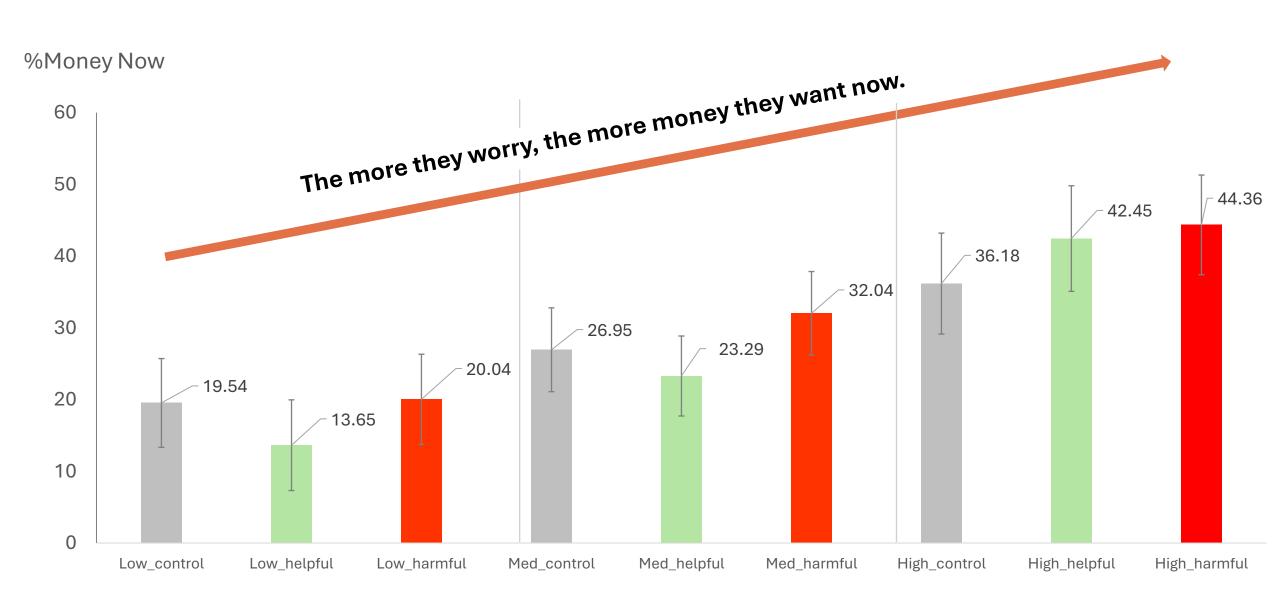
Subjective financial worry	Group	n	Percent
Low financial warm	Control	138	11.48
Low financial worry (level 1 and 2)	Helpful nudge	133	11.06
	Harmful nudge	134	11.15
Medium financial worry	Control	155	12.90
(level 3)	Helpful nudge	170	14.14
	Harmful nudge	157	13.06
High financial worry	Control	107	8.90
(level 4 and 5)	Helpful nudge	98	8.15
	Harmful nudge	110	9.15
	Total	1,202	100

Average %money now, by "Subjective financial worry"

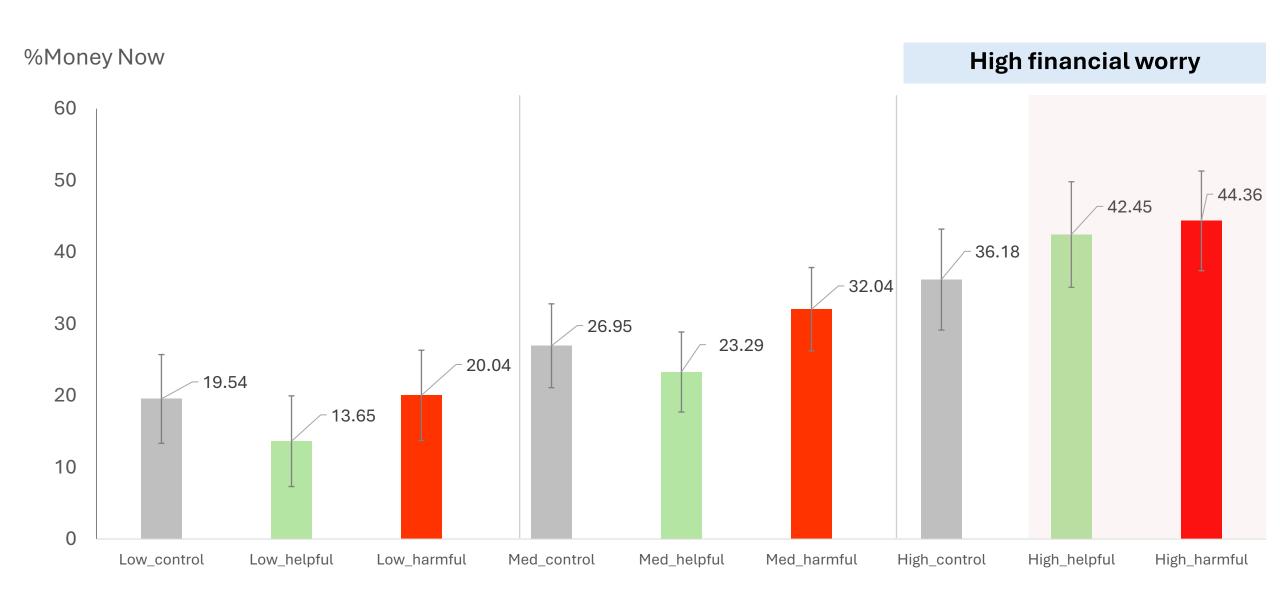
%Money Now



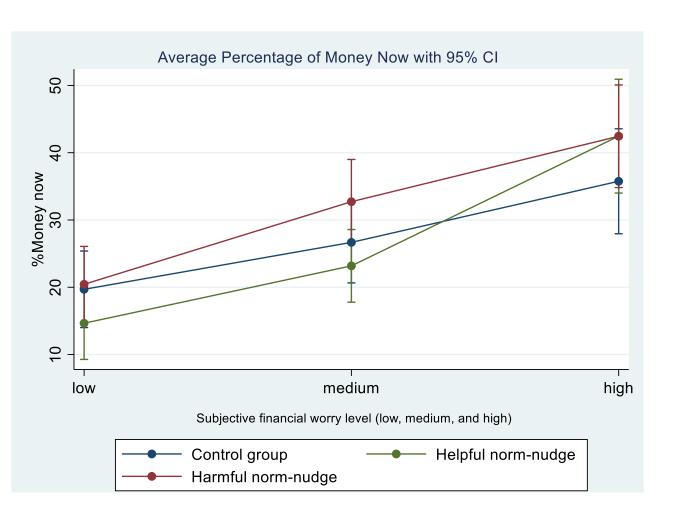
Average %money now, by "Subjective financial worry"



Average %money now, by "Subjective financial worry"



If people are concerned about their financial situation (i.e., high financial worry), they are <u>not</u> nudgeable by helpful norm-nudge.



Money now (0%-100%) Constant 17.768*** 16.954*** 22.859** 19.536*** 25.386** (1.598) (2.217) (10.166) (2.822) (10.388) Medium financial worry (0/1) 9.552*** 9.620*** 9.212*** 7.419* 6.978 (2.359) (2.356) (2.444) (4.157) (4.253) High financial worry (0/1) 23.219*** 23.107*** 21.809*** 16.641*** 16.059*** (2.841) (2.844) (2.963) (4.856) (4.975) Nudges Helpful norm-nudge (0/1) -1.903 -1.448 -5.89 -5.039 (2.594) (2.595) (3.865) (3.931)
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(2.594) (2.595) (3.865) (3.931)
Harmful norm-nudge (0/1) 4.35 4.419* 0.501 0.748
(2.665) (2.653) (4.001) (4.021)
Moderating effect
Medium financial worry × 2.229 1.546
Helpful norm-nudge (5.637) (5.736)
Medium financial worry × 4.582 5.299
Harmful norm-nudge (5.981) (6.002)
High financial worry × 12.161* 11.749*
Helpful norm-nudge (7.048) (7.038)
High financial worry × 7.685 5.945
Harmful norm-nudge (6.868) (6.840)
Controlled for characteristics No No Yes No Yes
Observations 1,202 1,202 1,202 1,202 1,202
Adjusted R-squared 0.053 0.056 0.073 0.056 0.073

Discussion

1. Nudgeability: helpful norm-nudge อาจช่วยคนที่เครียดเรื่องเงินมาก ๆ ไม่ได้

If people are concerned about their financial situation (i.e., high financial worry), they are not nudgeable by the helpful norm-nudge.

2. Unintended consequences: เพียงความหวังดีจากการออกนโยบาย อาจไม่เพียงพอ

The moderating effect, even with marginal statistical significance (p < 0.10), is robust and meaningful for policy implementation, as good intentions from nudging seem not to be sufficient to help people with high financial scarcity.

3. Scarcity theory: ความขาดแคลน ทำให้คน focus กับสิ่งที่สำคัญที่สุด ณ ตอนนั้น

This evidence can possibly be explained by using scarcity theory in that people focus on what matters most (e.g., money) (Mullainathan & Shafir, 2013).

4. Descriptive norm: descriptive norm-nudge อาจเป็นเครื่องมือที่อ่อนไป

The descriptive helpful norm-nudge might be too light to change people's behaviour.

5. Evidence of backfire, when comparing up: เปรียบเทียบกับคนที่มีมากกว่า อาจท้อแท้ได้

- Beshears et al. (2015): low-wage workers feel discouraged compared with their higher-economic-status colleagues. Therefore, they decide not to save money at all.
- Silva and John (2017): used the descriptive norm-nudge with late payment of tuition fees behaviour in the UK and found no significant effect



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Thank you

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