Time is Money? How a Scarcity Mindset Shifts How Consumers Trade off Time and Money Savings.

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Objective: This research investigates how experiencing resource scarcity (Cannon, Goldsmith, & Roux 2019) affects individuals' ability to evaluate resources and make decisions. In the first two studies, we examined the effect of monetary scarcity on economic decisions. In the following two studies, we investigated how experiencing a scarcity of money, as compared to a scarcity of time, impacts allocation trade-offs between these resources.

H1 (Studies 1 & 2): Participants experiencing money scarcity will undervalue their time more than those in a control condition in order to save (even a relatively small amount of) money on a purchase.

H2 (Studies 3 & 4): Time (vs. money) will be more undervalued by participants experiencing scarcity (vs. control), regardless of the type of scarcity (time vs. money) they are experiencing.

Study 1

IV: Episodic recall task adapted from Roux, Goldsmith & Bonezzi (2015) to manipulate money scarcity.

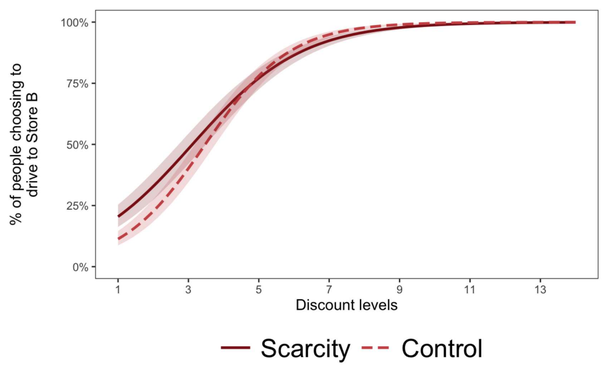
DV: Purchase decision of a low vs. high-price jacket. Participants were presented with 14 dichotomic choices, each offering the opportunity between paying the full price or drive a fixed amount of time (i.e., 20 minutes) to another store for an increasing discount, ranging from $5 to $70 (in $5 increments).

Results

- NO effect of price
- Main effect of scarcity (χ^2= 15.28, p < .001)
- Main effect of discount levels (χ^2 = 902.4, p < .001)
- Two- way interaction between scarcity and discount levels (χ^2 = 30.33, p < .001)
- NO effect of income (p = .22)

N = 750 Mturk participants (58% female, M_{age} = 33, ranging from 18 to 75 years old).

Participants in the scarcity condition were willing to drive for a discount sooner than those in the control condition.



Study 2

IV: Episodic recall task adapted from Roux, Goldsmith & Bonezzi (2015) to manipulate money scarcity.

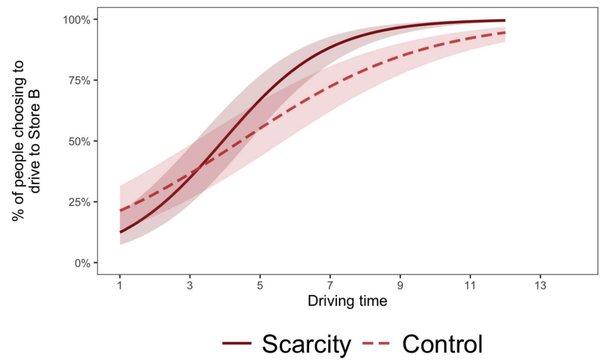
DV: Participants were presented with 12 dichotomic choices to purchase a jacket, each offering the opportunity between paying the full price or get a fixed discount (i.e., $35) by driving a decreasing amount of time to a different store, ranging from 60 minutes to 5 minutes (in 5 minutes intervals).

Results

- Main effect of condition (χ^2 = 4.49, p < .05)
- Main effect of driving time (χ^2 = 216.6, p < .001)
- Two way interaction between condition and driving time (χ^2 = 31.34, p < .001)
- NO effect of income (p =.72)

N = 180 Mturk participants (48% female, M_{age} = 35, ranging from 19 to 73 years old).

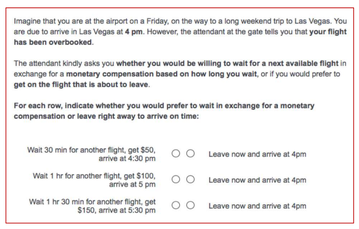
Participants experiencing scarcity were slightly less likely to drive to another store for a discount when driving time was high, but increasingly more likely to do so as the driving time decreased.



Study 3

IV: Episodic recall task adapted from Roux, Goldsmith & Bonezzi (2015) to manipulate money and time scarcity.

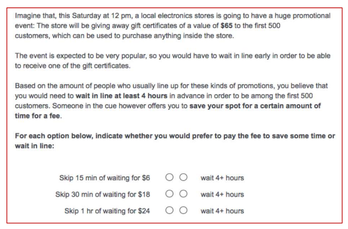
DV: Two types of scenarios, each with two different versions (adapted from Becker, DeGroot & Marschak, 1964) to elicit a tradeoff between money and time in a series of binary choices.


Imagine that you are at the airport on a Friday, on the way to a long weekend trip to Las Vegas. You are due to arrive in Las Vegas at **4 pm**. However, the attendant at the gate tells you that **your flight has been overbooked**.

The attendant kindly asks you **whether you would be willing to wait for a next available flight** in exchange for a **monetary compensation based on how long you wait**, or if you would prefer to **get on the flight that is about to leave**.

For each row, indicate whether you would prefer to wait in exchange for a monetary compensation or leave right away to arrive on time:

Wait 30 min for another flight, get $50, arrive at 4:30 pm	○ ○	Leave now and arrive at 4pm
Wait 1 hr for another flight, get $100, arrive at 5 pm	○ ○	Leave now and arrive at 4pm
Wait 1 hr 30 min for another flight, get $150, arrive at 5:30 pm	○ ○	Leave now and arrive at 4pm


Imagine that, this Saturday at 12 pm, a local electronics stores is going to have a huge promotional event: The store will be giving away gift certificates of a value of **$65** to the first 500 customers, which can be used to purchase anything inside the store.

The event is expected to be very popular, so you would have to wait in line early in order to be able to receive one of the gift certificates.

Based on the amount of people who usually line up for these kinds of promotions, you believe that you would need to **wait in line at least 4 hours** in advance in order to be among the first 500 customers. Someone in the cue however offers you to **save your spot for a certain amount of time for a fee**.

For each option below, indicate whether you would prefer to pay the fee to save some time or wait in line:

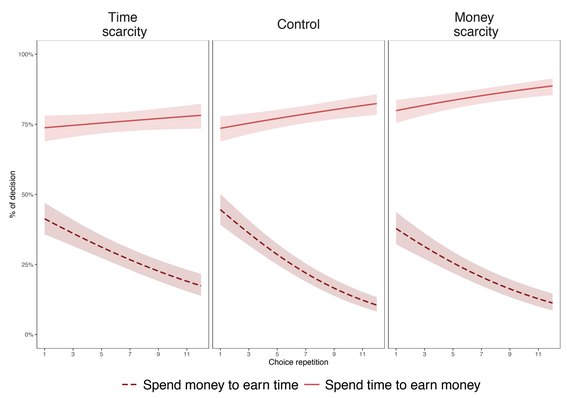
Skip 15 min of waiting for $6	○ ○	wait 4+ hours
Skip 30 min of waiting for $18	○ ○	wait 4+ hours
Skip 1 hr of waiting for $24	○ ○	wait 4+ hours

N = 733 Mturk participants (50% female, M_{age} = 37, ranging from 19 to 88 years).

Results

- Main effect of scenario type (χ^2 = 249.95, p < .001)
- Main effect of choice repetition (χ^2 = 239.61, p < .001)
- Interaction between scenario type and choice repetition (χ^2 = 208.86, p < .001)
- Interaction between scenario type and scarcity (χ^2 = 10.18, p < .01)
- Three-way interaction between condition, choice repetition and scenario type (χ^2 = 5.63, p < .05)
- NO effect of income (p = .66)

Participants experiencing scarcity were less willing to spend money to save time as the amount of money required increased.



Study 4

IV: Episodic recall task adapted from Roux, Goldsmith & Bonezzi (2015) to manipulate money and time scarcity.

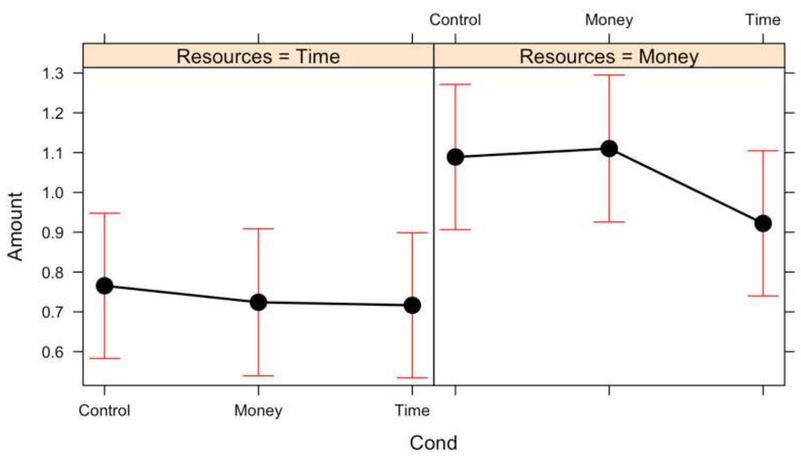
DV: Open-ended versions of the scenarios used in Study 3. Participants were asked to estimate how long they would accept to wait in order to obtain a fixed amount of money (i.e., gift certificate), or to indicate how much a gift certificate should be worth in dollars if they had to wait a fixed amount of time to obtain it.

Results:

- NO effect of condition
- Effect of resource type (χ2 = 39.32, p < .001)
- NO interaction effect
- NO effect of amount of weekly leisure time (p = .97) or weekly monetary availability (p = .74)

N = 239 undergraduate students (62% female, M_{age} = 21, ranging from 18 to 44)

Participants experiencing scarcity valued money more than time, irrespective of the type of scarcity experienced.



Main results

- Participants in the money scarcity (vs. control) condition were more likely to commit their time to save on a purchase.
- Participants in the money scarcity (vs. control) condition were progressively more likely to drive to the second store as the driving time decreased.
- People perceived money as more valuable than time.
- Participants' level of income or objective levels of resources did not impact the results.

References

- Becker, G. M., DeGroot, M. H., & Marschak, J. (1964). Measuring utility by a single-response sequential method. Systems Research and Behavioral Science, 9(3), 226-232. DOI: 10.1002/bs.3830090304
- Cannon, C., Goldsmith, K., & Roux, C. (2019). A self-regulatory model of resource scarcity. Journal of Consumer Psychology, 29(1), 104-127. DOI: 10.1002/jcpy.1035
- Roux, C., Goldsmith, K., & Bonezzi, A. (2015). On the psychology of scarcity: When reminders of resource scarcity promote selfish (and generous) behavior. Journal of consumer research, 42(4), 615-631. DOI: 10.1093/jcr/ucv048