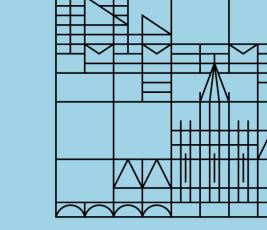
# Mental accounting of time:

# Which information and strategies do people use to decide about their time?

Universität Konstanz



Maria Rosa Miccoli<sup>1</sup>, Malena Miller<sup>1</sup>, Ulf-Dietrich Reips<sup>1</sup>

<sup>1</sup>Department of Psychology, Psychological Methods, Assessment, and iScience, University of Konstanz, Germany

#### Research question:

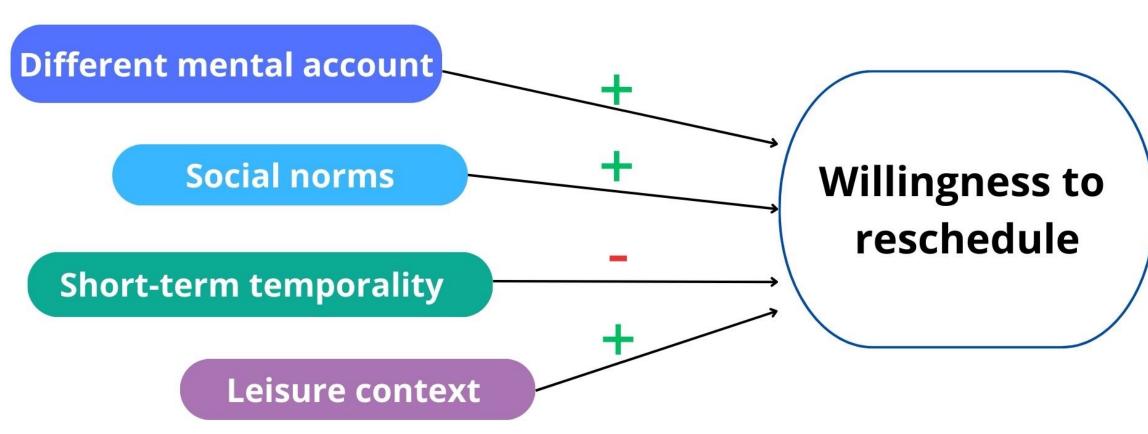
How does the mental accounting of time impact people's decisions about their time, referring to the willingness to reschedule an event after enduring a hypothetical temporal loss? Are other information (social norms, temporality of the loss, and context types) used to make decisions about time?

## Theoretical background

The mental accounting framework (Thaler, 1999) was chosen to investigate which information people use to make decisions about their time. Mental accounting is defined as the human tendency to sort resources into mental accounts, characterized by different subjective values x units (vs. fungibility principle) (Thaler, 1999). The present study employs a variation of the classic theater ticket experiment (Kahneman & Tversky, 1984) because it represents a simple hypothetical situation where people experience a loss, and framing such temporal losses differently (same vs. different mental account) allows us to investigate which information people use when they make decisions about their time in such situations. People make daily decisions about their time, and real life is characterized by the presence of many characteristics impacting the subjective value of time. Social norms, temporality of the loss, and context types are investigated here to evaluate whether such pieces of information about the hypothetical scenarios affect people's willingness to reschedule specific events, after enduring a hypothetical temporal loss.

- Social norms have been proven to impact individual preferences (Melnyk et al., 2022), but there is a lack of study about their role in decision-making processes involving time.
- The temporality of the loss is here defined as the time interval between when individuals discover their temporal loss and the time of the planned event. Decision-making studies in other fields (Ariel & Zakay, 2001) have shown that experiences are evaluated differently depending on their temporal occurrences, but currently, there are no studies on the temporality of the loss impact on individual decisions about temporal resources.
- The context types on which time is spent are important for the perceived value of time. We hereby focus on a classic dichotomization of time: leisure (time devoted to recreation activities or relaxation - Aguiar & Hurst, 2007) and paid work context types (Rajagopal & Rha, 2009).

# **Hypotheses**



## **Project**

 Experiment 1: Mental accounting of time and social norms influence (N = 279)

A 2x2 mixed factorial design investigating the short-term loss, and social norms impact

Experiment 2: The role of the temporality of the loss (N =

A 2x2 mixed factorial design investigating the long-term loss, and the social norms impact

 Experiment 3: Context types and temporality of the loss impact (N = 280)

A 3x2x2x2 mixed factorial design investigating the context types, the temporality of the loss, and the social norms\*.

\*This poster illustrates the scenarios and main results of Experiment 3.

#### Method

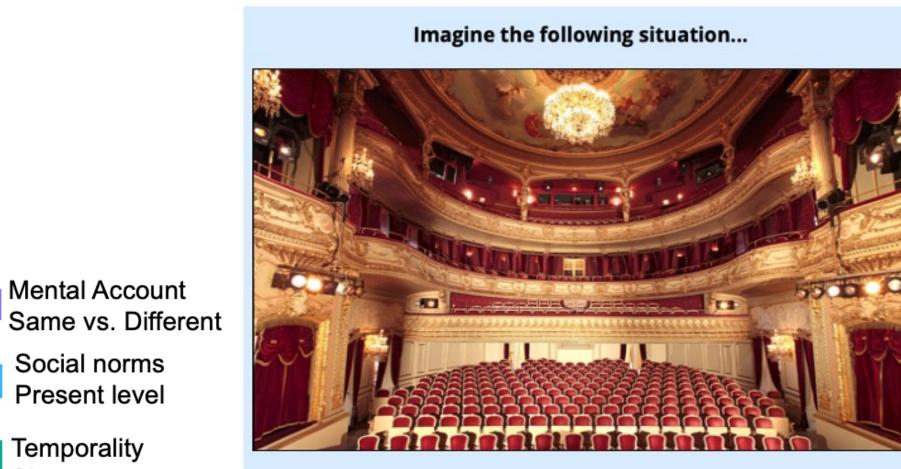
<u>Independent variables</u>: Over three Web Experiments (<u>www.wextor.eu</u>), mental account, social norms, temporality of the loss, and context types were manipulated.

Dependent variable: The willingness to reschedule the missed event was measured in the different scenarios, through a visual analogue scale.

Experimental design (Experiment 3): We implemented a 3x2x2x2 mixed factorial experimental design varying the between-subjects independent variable (the social norm condition: present, not present, alone) and the three within-subjects independent variables (mental account: same or different, temporality: shortterm or long-term, and context: work or leisure).

### Scenarios examples: Mental account





It is Friday evening and you are going to the theater with a friend. The theater tickets were a gift from you to your friend. As you arrive at the theater, you discover that the play the two of you wanted to watch has been rescheduled for the following Friday. It is too late to organize something else that evening, but you and your friend are both available the following week.

How likely would you reserve again the next Friday for the theater

#### Different



It is Friday evening, and you and a friend are going to the theater. The theater tickets were a gift from you to your friend. As you arrive at the theater, you receive an urgent call from another friend. The call prevents you from watching the theater play. It is too late to organize something else that evening, but you and your friend are both available the following week.

How likely would you reserve again the next Friday for the theater

## Results

Mental Account

Social norms

Present level

Temporality

Short-term

# A repeated measures ANOVA partially confirmed the hypotheses:

A significant main effect of mental accounting was observed:  $F(1, 277) = 14.08, p < .001, \eta^2 < .001$ . •  $M_{same} = 117.22$ ;  $SD_{same} = 62$ . •  $M_{different} = 128.50$ ;  $SD_{different} = 56.11$ .

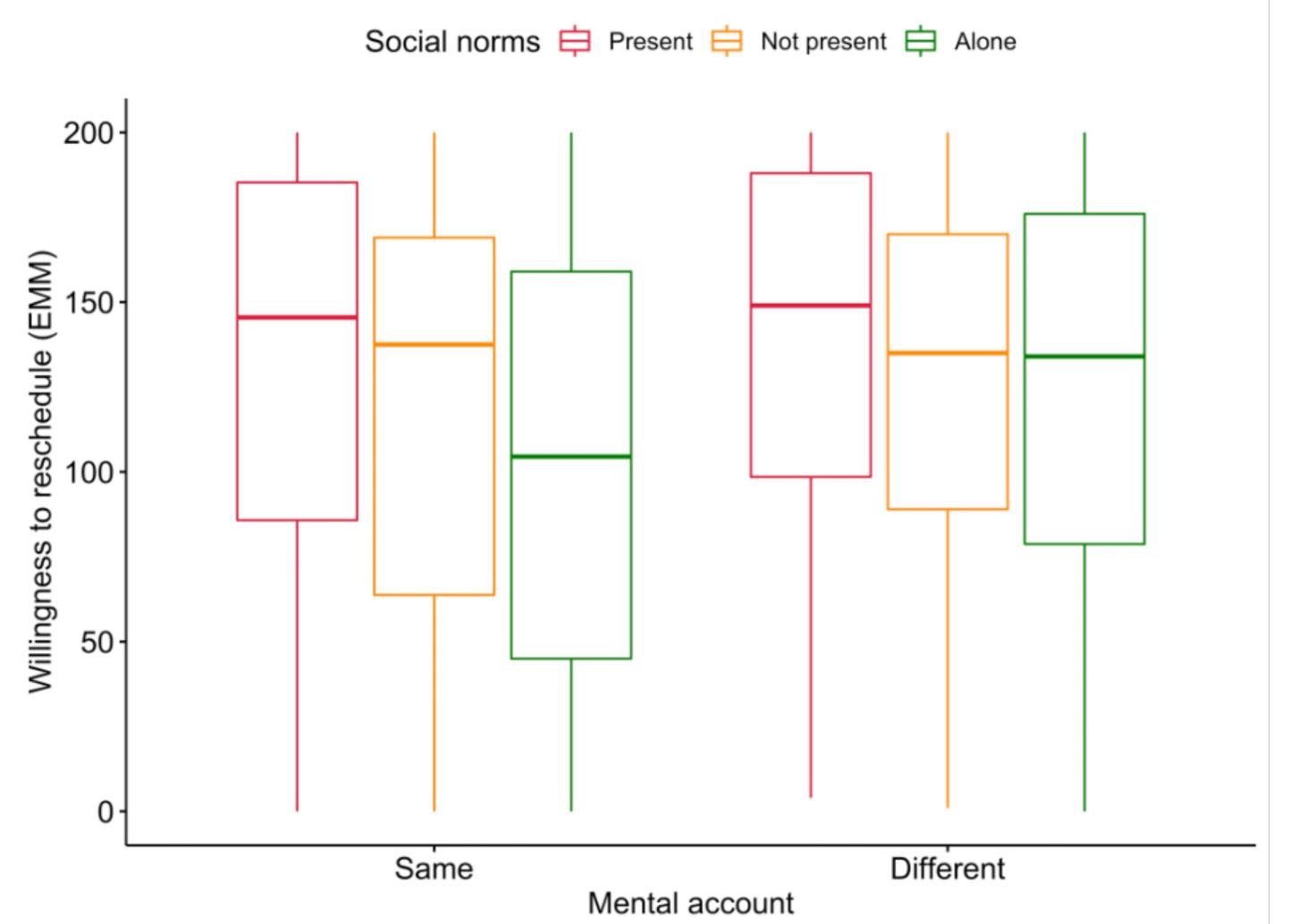
A significant main effect of the social norms was observed: F(2, 277) = 22.53, p < .001,  $\eta^2 < .001$ .

•  $M_{alone} = 114.35$ ;  $SD_{alone} = 24.36$ . •  $M_{present} = 132.45$ ;  $SD_{present} = 28.45$ . •  $M_{notpresent} = 123.08$ ;  $SD_{notpresent} = 24.22$ .

A significant main effect of the temporality was observed: F(1, 277) = 127.99, p < .001,  $\eta^2 = .19$ . •  $M_{long-term} = 96.65$ ;  $SD_{long-term} = 58.66$ .  $M_{short-term} = 149.06$ ;  $SD_{short-term} = 47.33$ .

A significant main effect of context was observed: F(1, 277) = 9.22, p = .002,  $\eta^2 = .004$ .  $M_{work}$  = 126.87;  $SD_{work}$  = 59.65. •  $M_{leisure} = 118.85$ ;  $SD_{leisure} = 58.87$ 

# The role of social norms and mental account in decisions about time



## Conclusion

The mental accounting of time exists: when the loss is framed as the same mental account, the loss is indeed perceived as stronger: participants show lower willingness to reschedule the target events than when the loss is framed as different mental account. Also, the study suggests that specific information are used by people to make their decisions about time, and they increase the willingness to reschedule target events:



Social norms:



A short-term temporality of the loss;



#### References and contact

For poster references and additional project details, please use the QR code below:



Contact information:

Research group: <u>iscience.com</u>

E-mail address: maria-rosa.miccoli@uni-konstanz.de