

# MENTAL CONTRASTING INCREASES SAVINGS FOR HIGH-EFFICACY INDIVIDUALS

## Evidence From a Field Experiment

### ABSTRACT

This field experiment with 1,008 users of a savings app tested the efficacy of a mental contrasting intervention on personal saving. The results reveal that **mental contrasting was effective, but only for high-efficacy individuals**. Those individuals saved more on average when presented with a mental contrasting appeal, whereas low efficacy individuals saved more when presented with a positive thinking appeal.

### INTRO

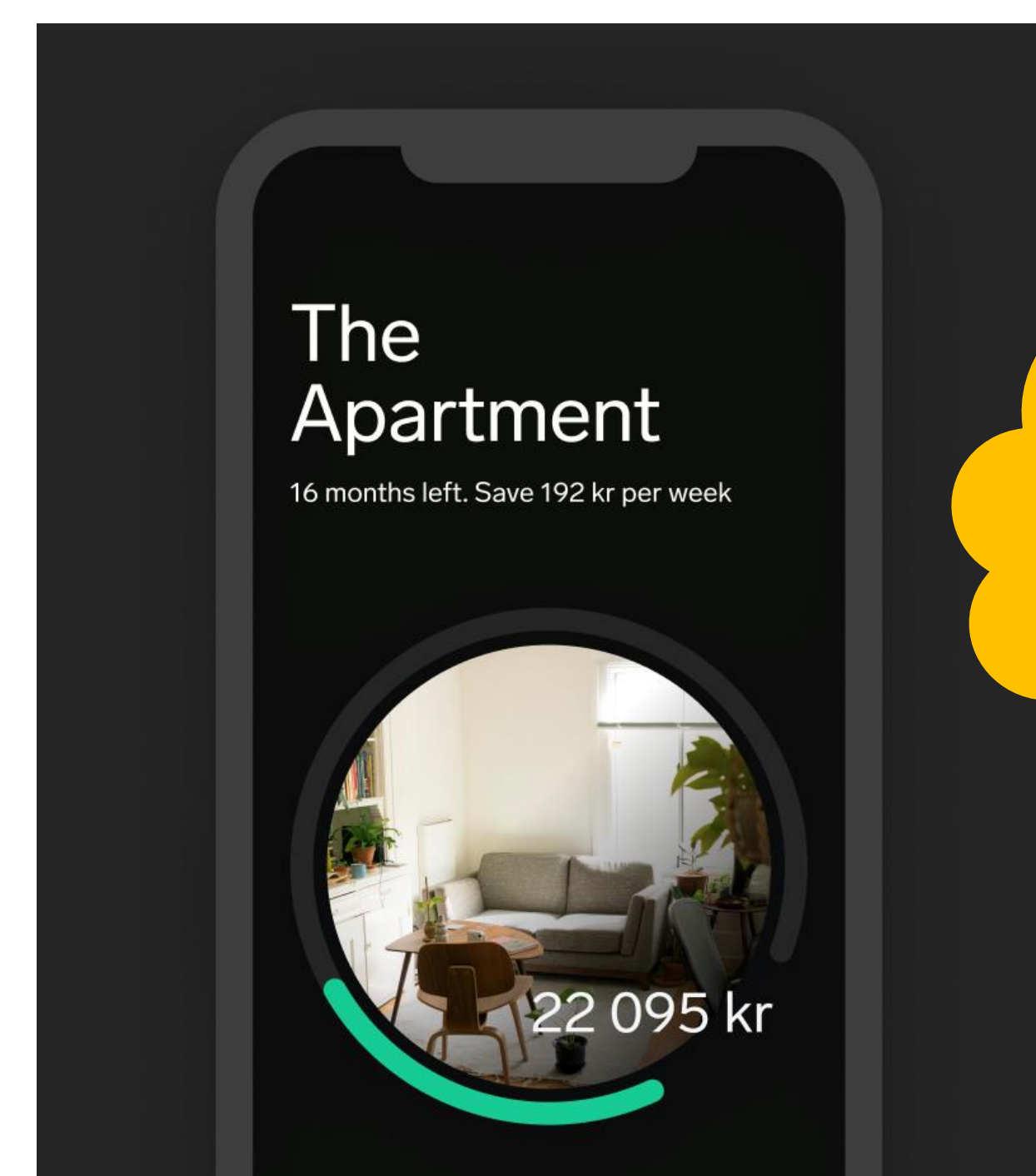
- Sufficient saving is an important aspect of financial wellbeing.
- Involves a trade-off between present rewards and long-term benefits → present bias (Malkoc & Zauberan, 2019).
- New technology presents an opportunity for scalable behavioral interventions to encourage savings (Hershfield et al., 2020).
- According to **Fantasy Realization Theory**, imagining a desired future is not enough for goal attainment. To promote action, the desired future needs to be contrasted with the present reality, i.e., **Mental Contrasting** (Oettingen, 2012).
- **Study aim:** Will a mental contrasting intervention lead to increased savings?

#### Positive Thinking

"What would be the best thing about achieving your dream and how would it feel?"

#### Mental Contrasting

"What would be the biggest barrier to achieving your dream and how would you overcome it?"



Savings goal = "dream"

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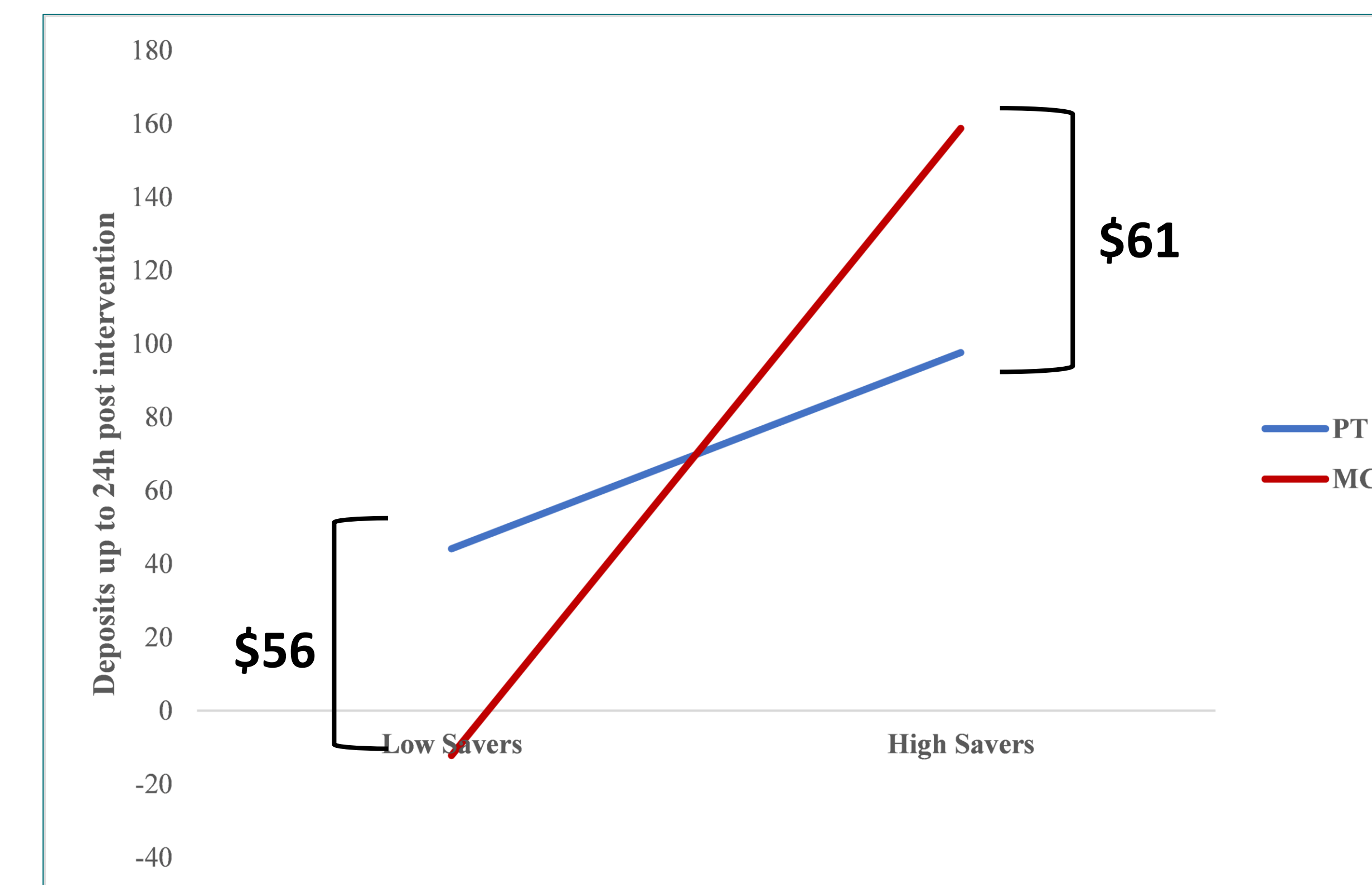
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### METHODS

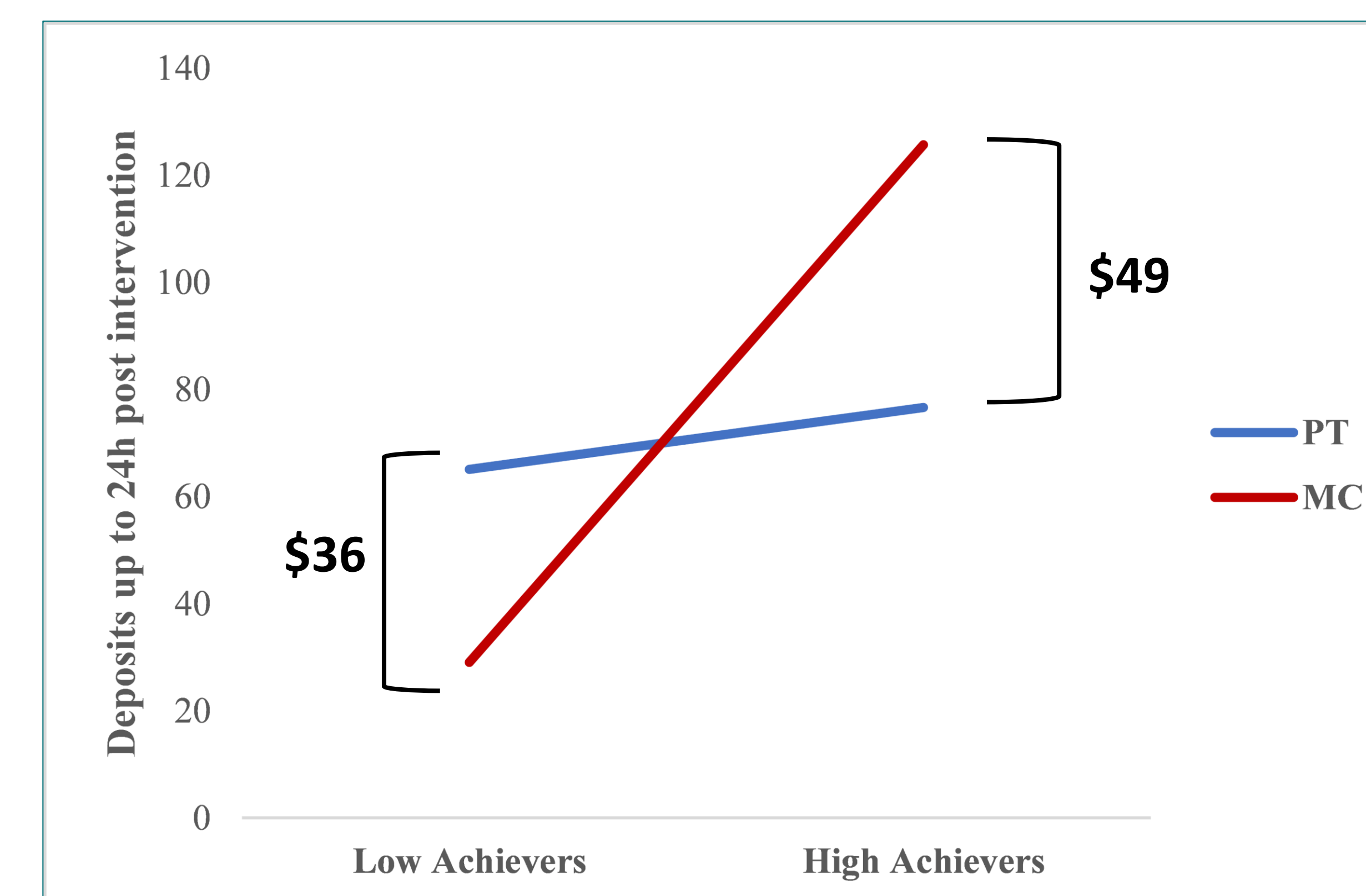
- A pre-registered field experiment conducted via a savings app.
- N = 1,008 savers
- 2 conditions: Mental Contrasting treatment (MC) and Positive Thinking control (PT).
- Main outcome variable: amount of saving 24h post intervention (in USD).

#### References:

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2):191.
- Duckworth, A., Kirby, T., Gollwitzer, A., and Oettingen, G. (2013). From fantasy to action: Mental contrasting with implementation intentions improves academic performance in children. *Social Psychological and Personality Science*, 4(6):745–753.
- Hershfield, H., Shu, S., and Benartzi, S. (2020). Temporal reframing and participation in a savings program: A field experiment. *Marketing Science*, 39(6):1039–1051.
- Malkoc, S. and Zauberan, G. (2019). Psychological analysis of consumer intertemporal decisions. *Consumer Psychology Review*, 2(1):97–113.
- Oettingen, G. (2012). Future thought and behaviour change. *European Review of Social Psychology*, 23(1):1–63.



**Figure 1:** Conditional effects of MC on deposits up to 24 hours post-intervention as moderated by total savings (mean centered). "High / Low Savers" = +/- 1 SD from mean



**Figure 2:** Conditional effects of MC on deposits up to 24 hours post-intervention as moderated by number of dreams achieved (mean centered). "High / Low Achievers" = +/- 1 SD from mean

### RESULTS AND DISCUSSION

- Mental contrasting was effective in increasing savings, but only for **high-efficacy individuals (Figures 1 and 2)**.
- These results persisted even 30 days post intervention
- This finding can be explained by **Fantasy Realization Theory**:
  - Past performance affects expectancy judgements (Bandura, 1977)
  - Expectancy judgements affect whether individuals feel that obstacles are surmountable, and therefore determine whether goal pursuit will be seen as feasible
  - Mental contrasting triggers expectations of success without altering their direction and therefore is only effective for **high-efficacy individuals** (Oettingen, 2012)
- **This provides field evidence to a lab-generated theory, in a novel domain (financial decision making)**