INTRODUCTION

- Although “nudges” are increasingly researched and frequently employed, little is known regarding their temporal dynamics. We question the implicit assumption that the efficacy of nudges is temporally invariant.

- We propose that there are periods of time when individuals are particularly sensitive to nudges. These time periods represent “teachable moments” (McBride, Emmons, and Lipkus 2003) that can motivate positive behavior change.

- Drawing on prior work on temporal landmarks (Dai, Milkman, and Riis 2014), we distinguish between optimal deadlines and ultimate deadlines, predicting that the optimal deadline acts as a discrete reference point and a “teachable moment,” enhancing nudge efficacy.

- We focus on a temporally relevant nudge—planning prompts—previously shown to increase deadline fulfillment (e.g., election voting; Nickeon and Rogers 2010). We predict that planning prompts are not consistently effective in promoting behavioral engagement. Rather, we hypothesize that planning nudges will be more effective (relative to no nudges) after an optimal action deadline.

STUDY 1

Financial Aid Communications

Students applying for the 2017-2018 academic year received 2 university financial aid email communications regarding the first instantiation of FAFSA’s early-application date (i.e., October 1, 2016)

- n = 1,247 prospective students
- (timing) x 2 (framing) mixed design
- Timing (relative to optimal deadline): [within-subjects]
- Before – 3 days before Oct. 1
- After – 2 days after Oct. 1
- Framing:
  - Planning prompts (e.g., “make a plan”)
  - No planning prompts
- DV: email engagement
  - (0 = didn’t open, 1 = opened)

Email Engagement

Students who received the early application planning prompt had better engagement.

- p = .003

STUDY 2

Lottery Enrollment

Participants learned of a lottery, requiring code entry for enrollment. Participants could only enter once, but earlier enrollment earned extra entries (resulting in 15, 10, 5, or 1 total entries). Participants could not enter until the following day, making the next entry opportunity identical for all participants.

- n = 699 MTurk workers
- (2 timing) x 2 (framing) BD design
- Timing (relative to optimal deadline):
  - Before – no prior deadline info
  - After – just missed 20-entry deadline
- Framing:
  - Planning prompts (e.g., “schedule time”)
  - No planning prompts
- DV: enrollment (0 = no, 1 = yes)

The busier you are, the more important it is to plan to enter your code early! The entry window opens soon!

Participants can enter their code as early as 2/24. It’s a busy time of year, so plan on setting aside some time to do this! Entries can only be made during a specific period of time. This means that prioritizing entering your code early could help increase your chances of winning.

STUDY 3

Mystery Discount Email Responsiveness

Participants simulated actions they would take in response to a promotional email from their favorite online clothing retailer.

- n = 432 MTurk workers
- (2 timing) x 2 (framing) BS design
- Timing (relative to optimal deadline):
  - Before – early bird deadline
  - After – just missed early bird deadline
- Framing:
  - Planning prompts (e.g., “make a plan”)
  - No planning prompts
- DV: action button (0 = no click, 1 = click)

“Mark on Calendar” Button

- p = .003
- Email 1 interaction (γ1=1.08, p=0.02)

Promotional emails with planning prompts increased likelihood planning-related behavioral action after, but not before, the early bird deadline.

When no extension provided, results support prior findings: a planning prompt may draw attention to lost opportunity but when past-deadline opportunity’s gain status is preserved by an “extension,” the effect of planning prompts disappears.

STUDY 4

Reclaiming Gain Via Deadline Extension

If “teachable moments” result from a shift to a loss frame, reframing the post-optimal action deadline as an opportunity to reclaim a gain should eliminate the benefit of planning prompts in nudge sensitive windows.

- n = 576 MTurk workers
- (3 timing) x 2 (framing) BS design
- Timing (relative to optimal deadline):
  - Before – sale is coming
  - After – (loss) just missed original sale
  - After (extension/gain) – extended sale
- Framing:
  - Planning prompts (e.g., “put it in your phone”)
  - No planning prompts
- DV: Composite index of beneficial gain perceptions (3 items; 1 – SD; 7 – SA; α = .91)

CONTRIBUTIONS & FUTURE RESEARCH

- Demonstrates that the behavioral efficacy of planning nudges is shaped by proximity to optimal deadlines, with the addition of planning prompts primarily increasing behavioral action after an optimal deadline has passed.

- Extends recent studies examining how consumers’ cognitive representation and categorization of time markers influences the likelihood of subsequent action (e.g., Dai, Milkman, and Riis 2015; Tu and Soman 2014).

- Proposes that temporal events can act as “teachable moments,” suggesting that future research may want to consider temporal dynamics of other nudges or identify similarly sensitive timeframes for interventions.

REFERENCES


