

Your Money or Your Life: Interplay Between Appeal Type and Valence Framing in Reducing Smoking Behavior

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INTRO

- Smoking is one of the leading causes of preventable death globally, yet it remains a common behavior
- We know little about which future consequences should be highlighted to encourage smoking cessation
- Study aim:** Explore the efficacy of two types of framing of smoking cessation consequences: appeal type (time vs. money) and valence (gain vs. loss).

METHODS

- A pre-registered field experiment conducted via a digital therapeutics app
- N = 2,935
- 2x2 between-subjects design (Appeal type [Money-Time] x valence [Gain-Loss])
- Experimental manipulation
- Outcome variables (analysis): 1) number of cigarettes reported day of intervention (Poisson Regression), 2) motivation (1-6 Likert scale, Ordinal Regression), 3) smoking cessation rate at end of program (Logistic Regression)

Focusing on money
(time) is more likely to
lead to immediate
reduced smoking
behavior when
framed as a gain (loss)

MONEY

Stopping
smoking will
save you \$ 104K
over your
lifetime.

LIFE EXPECTANCY

Continuing
smoking will
take away up
to 7 years from
your life
expectancy.

Money
Gain

If you stop smoking by [smoke-free date], you will save [money] over your lifetime that would otherwise be spent on cigarettes.

Fantastic, right?

If you continue smoking past [smoke-free date], you will lose [money] over your lifetime that will be spent on cigarettes.

Is it really worth it?

Money
Loss

Time
Gain

If you stop smoking by [smoke-free date], you will add up to xx years to your life expectancy.

Fantastic, right?

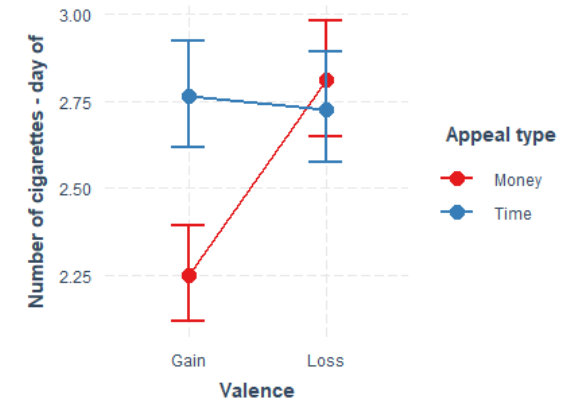
If you continue smoking past [smoke-free date], you will take away up to xx years from your life expectancy.

Is it really worth it?

Time
Loss

RESULTS

- Significant interaction ($p < .001$) between message appeal type and valence framing in the short-term so that messages focusing on money (time) are more likely to produce immediate reduction in smoking when framed as a gain (loss)
- No significant effect for the intervention on motivation or smoking cessation



DISCUSSION

- Results illustrate psychological differences between money and time, between attitudes and behaviors, and between short-term and long-term behavior change
- Study highlights importance of considering both appeal type and valence framing when designing smoking cessation messages
- Given the scalability and cost efficiency of framing interventions, results could also be valuable health organizations, policymakers, and news outlets crafting health promoting messages

SJDM Zoom link:

<https://hhs-se.zoom.us/j/64297604213>