Small cues change savings choices☆

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ABSTRACT

We present evidence from randomized field experiments that 401(k) savings choices are significantly affected by one- to two-sentence anchoring, goal-setting, or savings threshold cues embedded in emails sent to employees about their 401(k) plan. Even though these cues contain little to no marginal information, cues that make high savings rates salient increased 401(k) contribution rates by up to 2.9% of income in a pay period, and cues that make low savings rates salient decreased 401(k) contribution rates by up to 1.4% of income in a pay period. Cue effects persist between two months and a year after the email.

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In this paper, we show using randomized field experiments that seeing subtle cues that make a certain savings choice salient significantly affects individuals' contributions to their 401(k) retirement savings plan, even though the cues contain little to no marginal information. The design of the three types of cues we test was inspired by psychological phenomena documented in the psychology and behavioral economics literature. Based on this literature, we predicted that savings choices would move towards the choice made salient by each of these cues. Indeed, we find that high savings cues raise 401(k) contribution rates, and low savings cues depress 401(k) contribution rates.

In the terminology of Raiffa (1982) and Thaler and Benartzi (2004), our paper is a work of prescriptive economics, which aims to provide tools to improve economic outcomes. To date, the practice of choice architecture (Thaler and Sunstein,

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Table 1
Experimental design overview.

Cue type	Treatment	Year sent	Eligible population	Cue text added to emails
Anchor	1% anchor	2009	Employees on pace to contribute $5000–$16,499 to 401(k) in 2009	For example, you could increase your contribution rate by 1% of your income and get more of the match money for which you're eligible. (1% is just an example, and shouldn't be interpreted as advice on what the right contribution increase is for you.)
	3% anchor	2010	Employees on pace to contribute $6000–$16,499 to 401(k) in 2010	For example, you could increase your contribution rate by 3% of your income and get more of the match money for which you're eligible. (3% is just an example, and shouldn't be interpreted as advice on what the right contribution increase is for you.)
	10% anchor	2010	Employees on pace to contribute $6000–$16,499 to 401(k) in 2010	For example, you could increase your contribution rate by 10% of your income and get more of the match money for which you're eligible. (10% is just an example, and shouldn't be interpreted as advice on what the right contribution increase is for you.)
	20% anchor	2010	Employees on pace to contribute $6000–$16,499 to 401(k) in 2010	For example, you could increase your contribution rate by 20% of your income and get more of the match money for which you're eligible. (20% is just an example, and shouldn't be interpreted as advice on what the right contribution increase is for you.)
Savings threshold	60% threshold	2009	Employees on pace to contribute <$16,500 to 401(k) in 2009	You can contribute up to 60% of your income in any pay period.
	$3000 threshold	2010	Employees on pace to contribute <$3000 to 401(k) in 2010	The next $x of contributions you make between now and December 31 will be matched at a 100% rate. [x is the difference between $3000 and the recipient's year-to-date match-eligible contributions]
	$16,500 threshold	2010	Employees on pace to contribute <$3000 to 401(k) in 2010	Contributing $y more between now and December 31 would earn you the maximum possible match. [y is the difference between $16,500 and the recipient's year-to-date match-eligible contributions]
Savings goal	$7000 goal	2010	Employees on pace to contribute $3000–$5999 to 401(k) in 2010	For example, suppose you set a goal to contribute $7000 for the year and you attained it. You would earn $500 more in matching money this year than you're currently on pace for.
	$11,000 goal	2010	Employees on pace to contribute $3000–$5999 to 401(k) in 2010	For example, suppose you set a goal to contribute $11,000 for the year and you attained it. You would earn $2500 more in matching money this year than you're currently on pace for.

2008)—a prominent example of prescriptive economics—in retirement savings systems has focused on defaults and the composition of the savings rate and investment option menus (Madrian and Shea, 2001; Benartzi and Thaler, 2001; Thaler and Benartzi, 2004; Huberman et al., 2004; Huberman and Jiang, 2006; Iyengar and Kamenica, 2010; Beshears et al., 2013). Our results indicate that the salience of particular savings choices is another tool available to the choice architect that is less heavy-handed (and thus potentially less controversial) than changing the default or narrowing the choice menu.

Our field experiments randomized exposure to savings cues in emails about the 401(k) that were sent to one large technology company's employees in two waves about a year apart from each other: the first in November 2009 and the second in October 2010. The only difference between the control and treatment emails was that the treatment emails included one or two additional sentences. Table 1 gives an overview of the experimental design and cue text.

We call the first type of cues "anchors" (Tversky and Kahneman, 1974) because they mentioned an arbitrary savings increase amount while trying to sound maximally uninformative. Psychologists have long known that the presentation of arbitrary numbers—or anchors—can shift subjects' judgments and willingness to pay for goods (Tversky and Kahneman, 1974). However, evidence is only beginning to emerge on the importance of anchoring for economic decisions outside the laboratory (Beggs and Graddy, 2009; Baker et al., 2012; Dougal et al., 2015; Keys and Wang, 2016). Since any cue that makes a particular savings behavior salient is likely to also cause that savings behavior to become an anchor, an anchoring cue can be thought of as a constituent ingredient of all other cues and thus an interesting place to begin the study of cues.[1]

The second type of cue mentioned a savings threshold that was created by the 401(k)'s employer matching contribution rules or contribution limits. Choi et al. (2002) and Benartzi and Thaler (2007) argue that many people choose their 401(k) contribution rate by using a rule of thumb based on a savings threshold created by the plan's structure, such as "contribute the maximum possible amount," or "contribute the minimum necessary to earn the maximum possible employer matching

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[1] Of course, an anchor may also be subsequently adopted as a goal, or may coincide with a certain savings threshold created by the plan's rules.