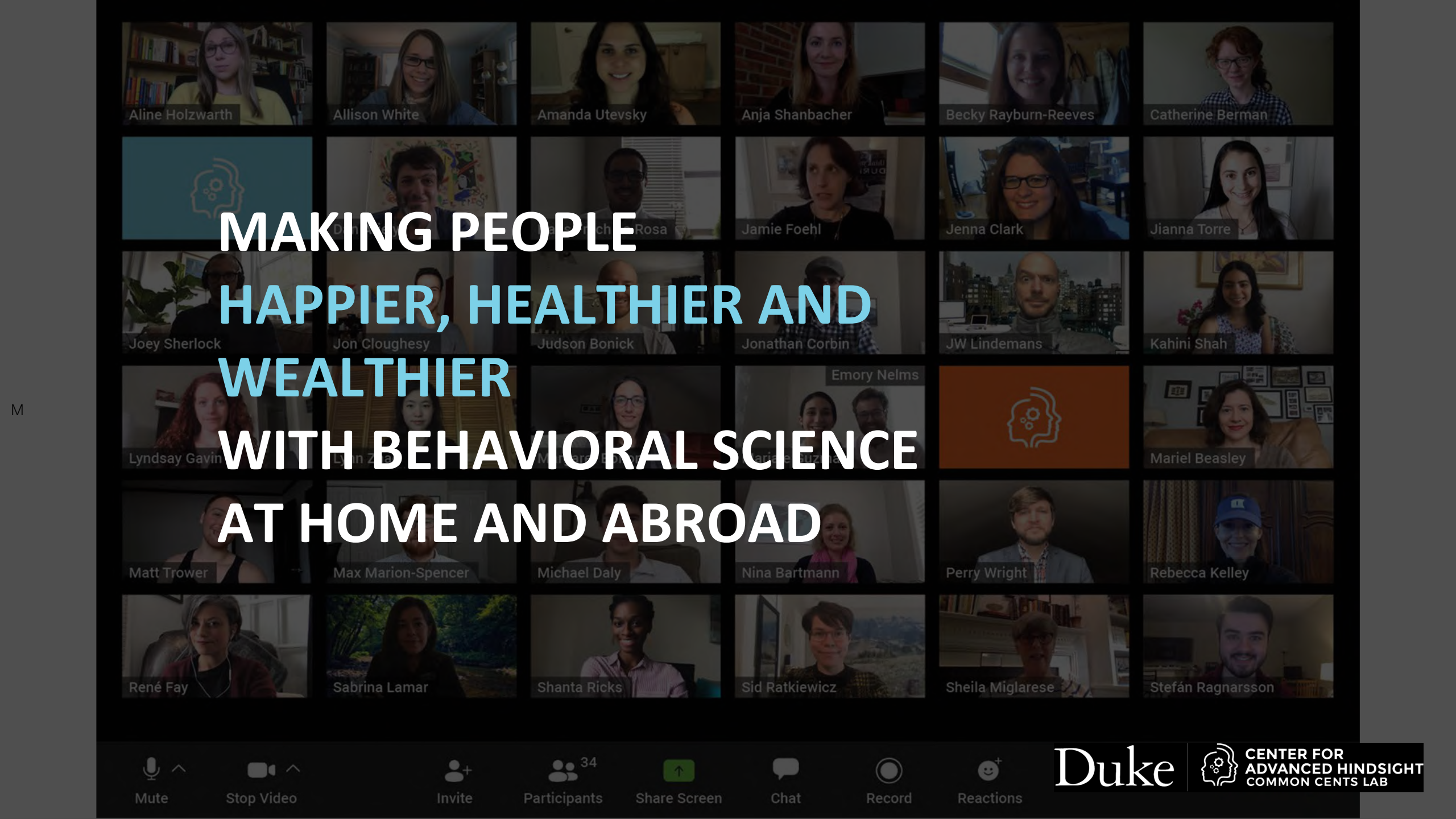
INNOVATION DESTINATION BEHAVIORAL SCIENCE WORKSHOP

Behavioral Science 101


MAKING PEOPLE
HAPPIER, HEALTHIER AND WEALTHIER
WITH BEHAVIORAL SCIENCE
AT HOME AND ABROAD
Aline Holzwarth
Allison White
Amanda Utevsky
Anja Shanbacher
Becky Rayburn-Reeves
Catherine Berman
Jamie Foehl
Jenna Clark
Jianna Torre
Joey Sherlock
Jon Cloughesy
Judson Bonick
Jonathan Corbin
JW Lindemans
Kahini Shah
Emory Nelms
Lyndsay Gavin
Mariel Beasley
Matt Trower
Max Marion-Spencer
Michael Daly
Nina Bartmann
Perry Wright
Rebecca Kelley
René Fay
Sabrina Lamar
Shanta Ricks
Sid Ratkiewicz
Sheila Miglarese
Stefán Ragnarsson
Mute
Stop Video
Invite
Participants
34
Share Screen
Chat
Record
Reactions
Duke
CENTER FOR ADVANCED HINDSIGHT
COMMON CENTS LAB

Classic Economics assumes people:

- Accumulate information
- Account for probabilities
- Accurately weight costs & benefits
- Maximize our own utility
- Have stable preferences

But really…

- We pay attention to social norms
- We use shortcuts to make decisions
- We are present bias
- We like the word FREE
- We are irrational

I’m going to start eating healthy...

🙂 Me

I’m going to start eating healthy...

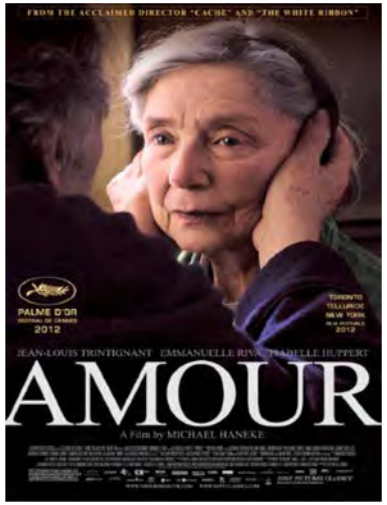
🙂 Me

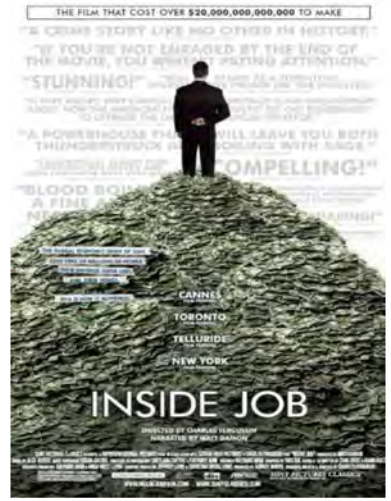
Also me ☝

People aren't rational!

PICKING FOR THE FUTURE

67%

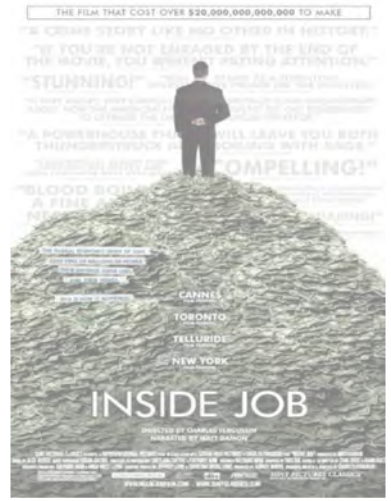




Read, Loewenstein, & Kalyanaraman, 1999

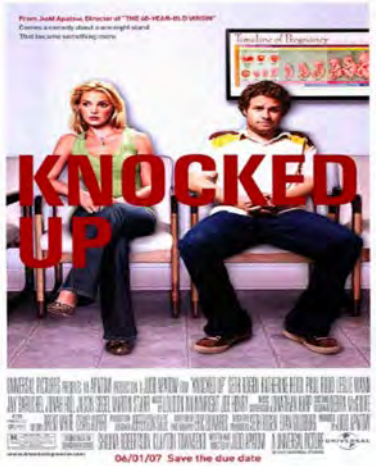
People aren't rational!

PICKING FOR THE FUTURE



PICKING FOR TONIGHT

44%



Read, Loewenstein, & Kalyanaraman, 1999

ACTIONS
INTENTIONS
BEHAVIORAL SCIENCE

HOW TO REMOVE
A BANKRUPTCY
FROM YOUR
CREDIT REPORT
BE A
DIT UNION
UPER
AVER
NATIONAL CREDIT UNION YOUTH WEEK
APRIL 22-28, 2012
Accrued Interest
Insured Deposit
ANNUAL LOAN LIMIT
MONEY TALKS:
Learn Its Language
FIRST TIME HOME BUYERS
ALWAYS ON THE FIRST SATURDAY OF EVERY MONTH
Andrew O. Smith
FINANCIAL LITERACY FOR MILLENNIALS
A Practical Guide to Managing Your Financial Life for Teens, College Students, and Young Adults
What to do when a collection agency calls and more!
DEBT SETTLEMENT
PCRI HOMEOWNERSHIP CLASS
PCRI
WHAT:
Get prepared to settle your debts before you contact your creditors.
WHEN
Thursday
May 26, 2016
6 pm - 7 pm
PCRI ANNEX

BUT DOES IT WORK?

0.3%

The percent of variance in financial behaviors explained by content-based, financial education interventions*

* Based on a meta-analysis of 458 treatment effects (Kaiser, Lusardi, Menkhoff, & Urban, 2020)

KNOWING INFORMATION

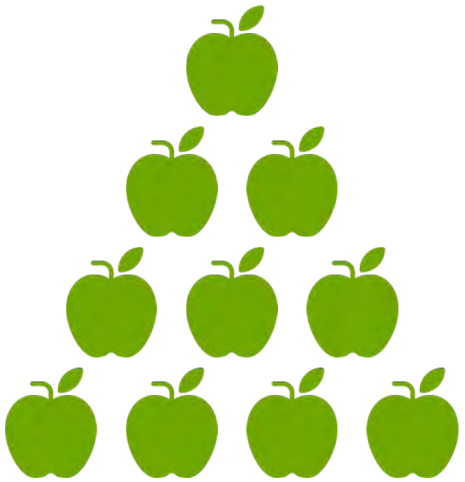
DOES NOT LEAD

TO BEHAVIOR CHANGE

A Goal.
An Intention.
An Objective.

... is not enough

What does work?

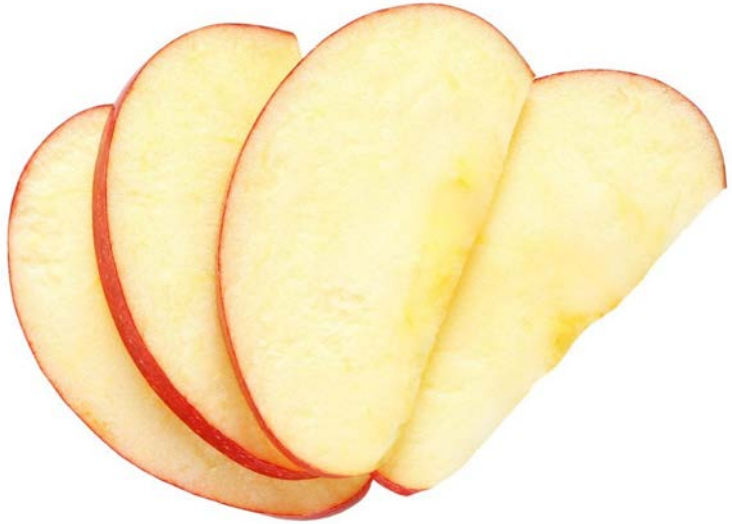


Don’t Like Apples

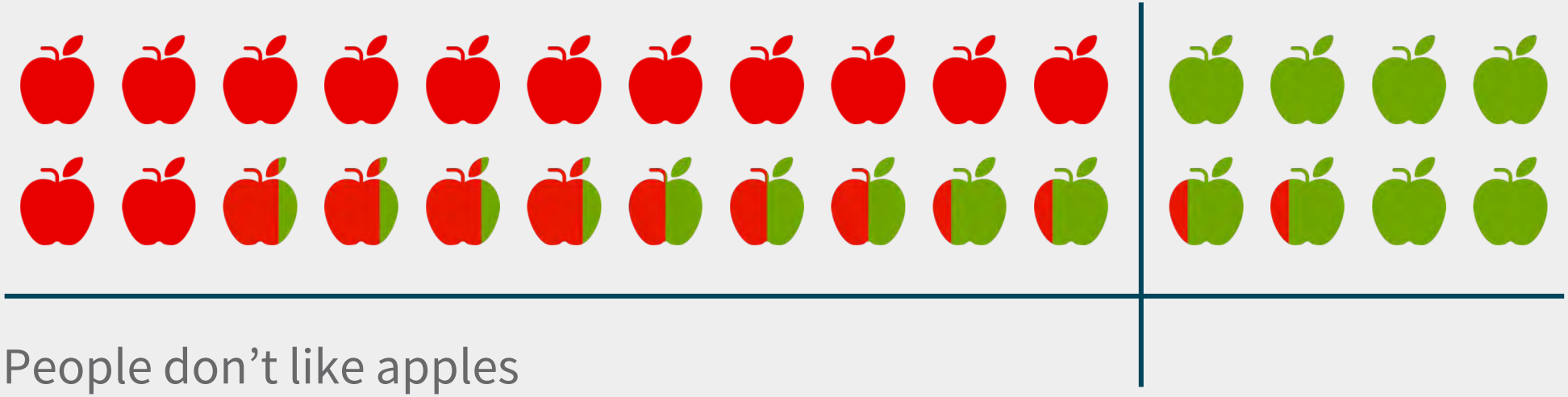
Likes Apples

So they put out free apples...

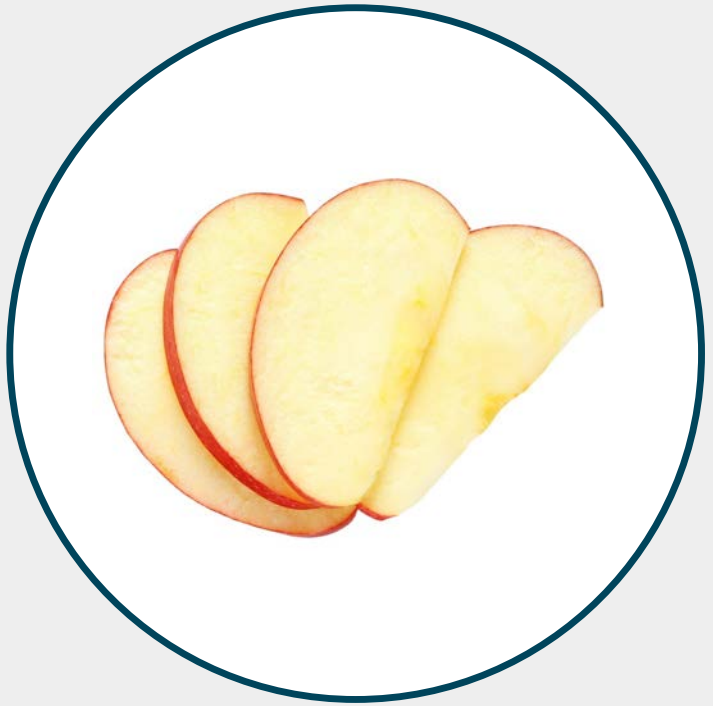
VS

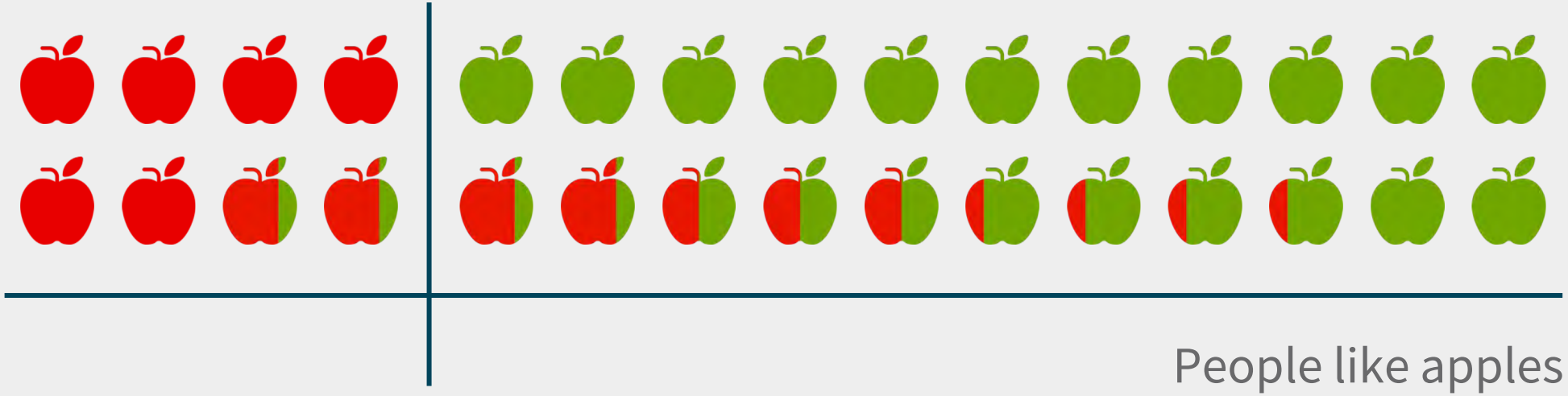


Swanson, Branscum, & Nakayima, 2009



People don’t like apples

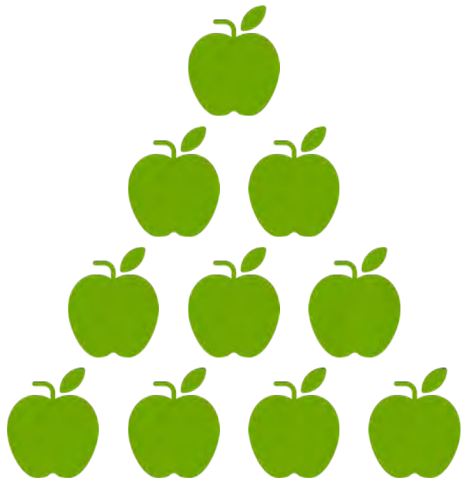




People like apples

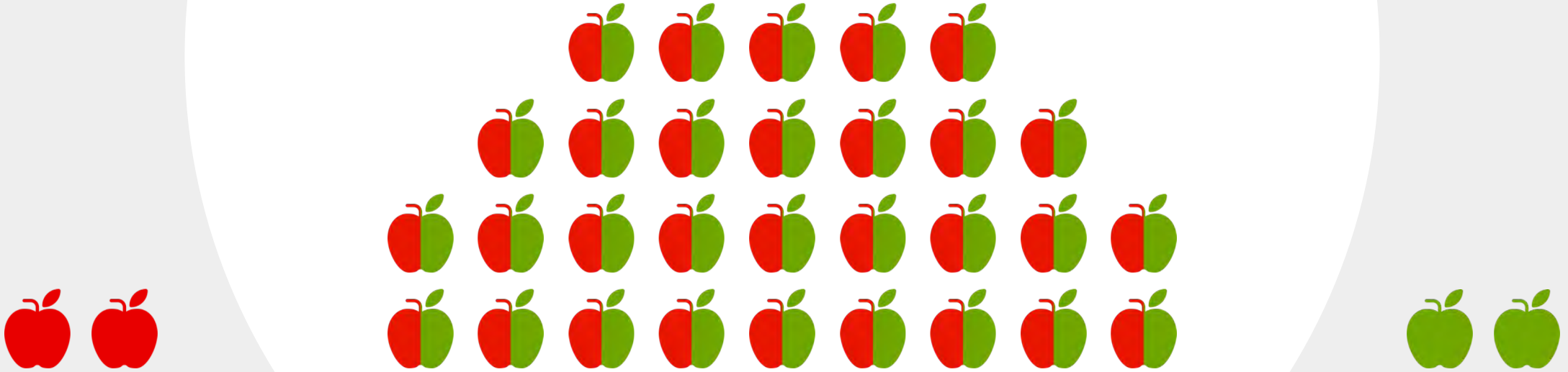
We don’t look like this...

Don’t Like Apples



Likes Apples

We look like this.



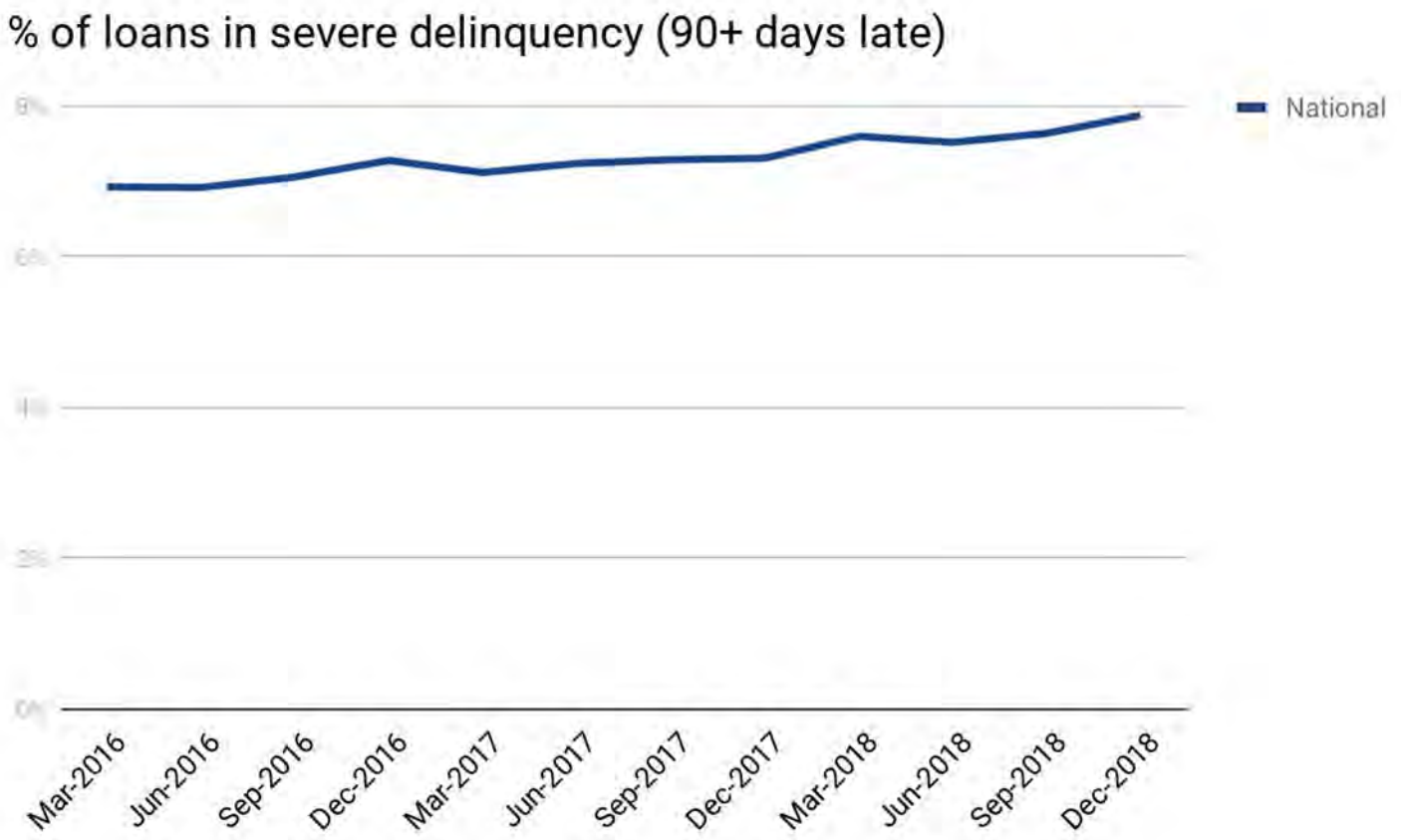
Hate apples

Loves apples

Our environment shapes our behavior and our choices more than information alone.

An Example:

National auto loan delinquency



What can we do to make repayment easier?

Syncing income to repayment

If people schedule their loan repayment for days when they know they'll have money, this should:

1) decrease late payments and loan defaults
2) help consumers anticipate and manage their cash flow

beneficial state bank **Recurring Payments**

Name _____

Phone Num. _____

Car Make _____

Car Model _____

Set up automatic payments that ***match when you get paid***!

(A) Monthly Total Car Payment _____

(B) Times You Get Paid per Month _____

(C) Amount per Payment (A ÷ B) _____

Paid when paychecks ***enter your account***

1. THE SAME DAY OF THE WEEK

☐ Weekly on _____

☐ Bi-weekly on _____

☐ Monthly on the _____ _____

OR

2. ON SPECIFIC DATES

☐ 1x Monthly on the _____

☐ 2x Monthly on the _____ and _____

☐ I completed a Welcome Call & changed my monthly due date to match when I get paid.

My monthly due date is _____

My **recurring payments** will start on _____

**First paycheck deposit date after you make your first full monthly payment*

To be paid by *either by*

☐ 1. ELECTRONIC CHECK

Bank Name _____

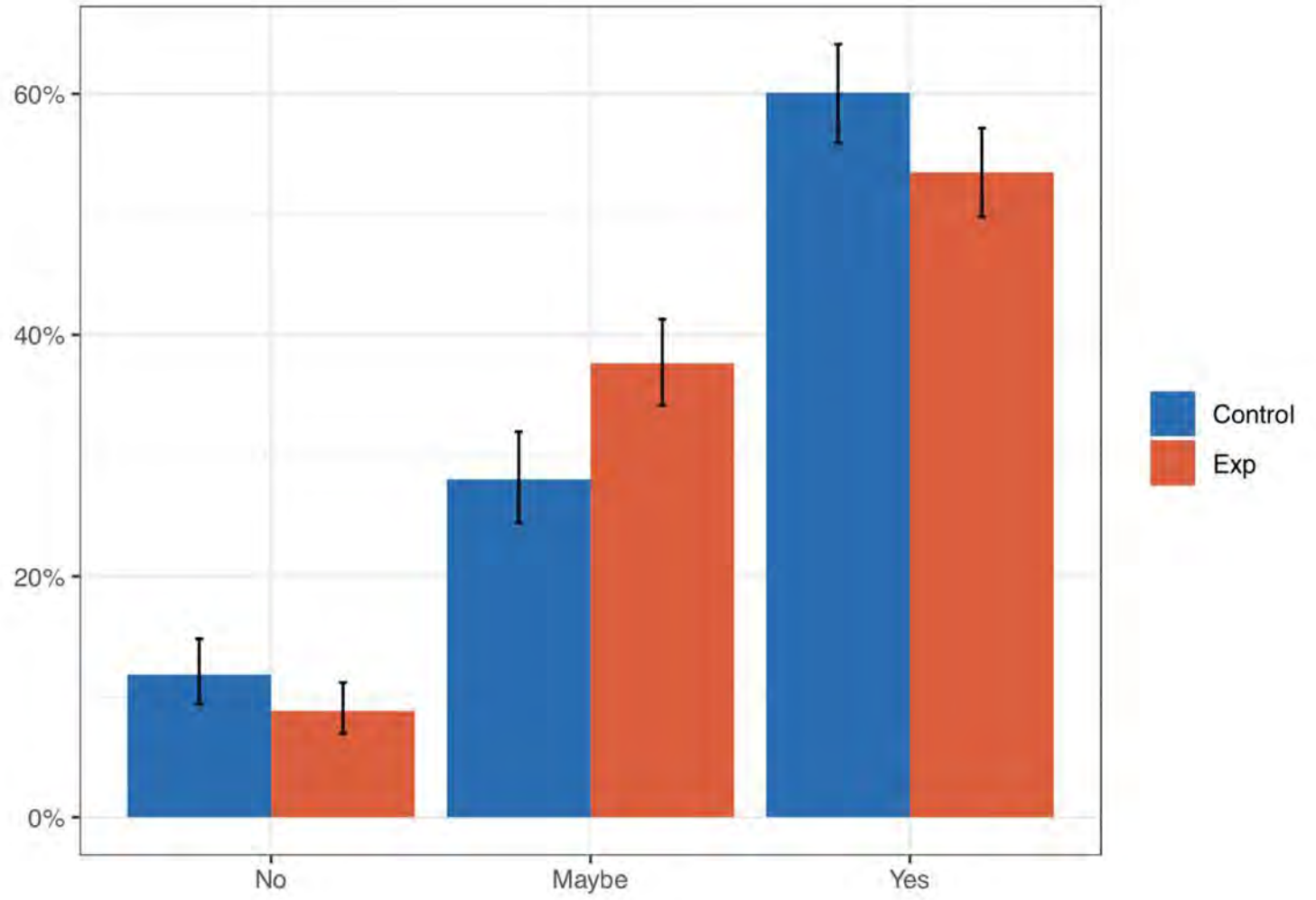
☐ Checking OR ☐ Savings

(Example check)

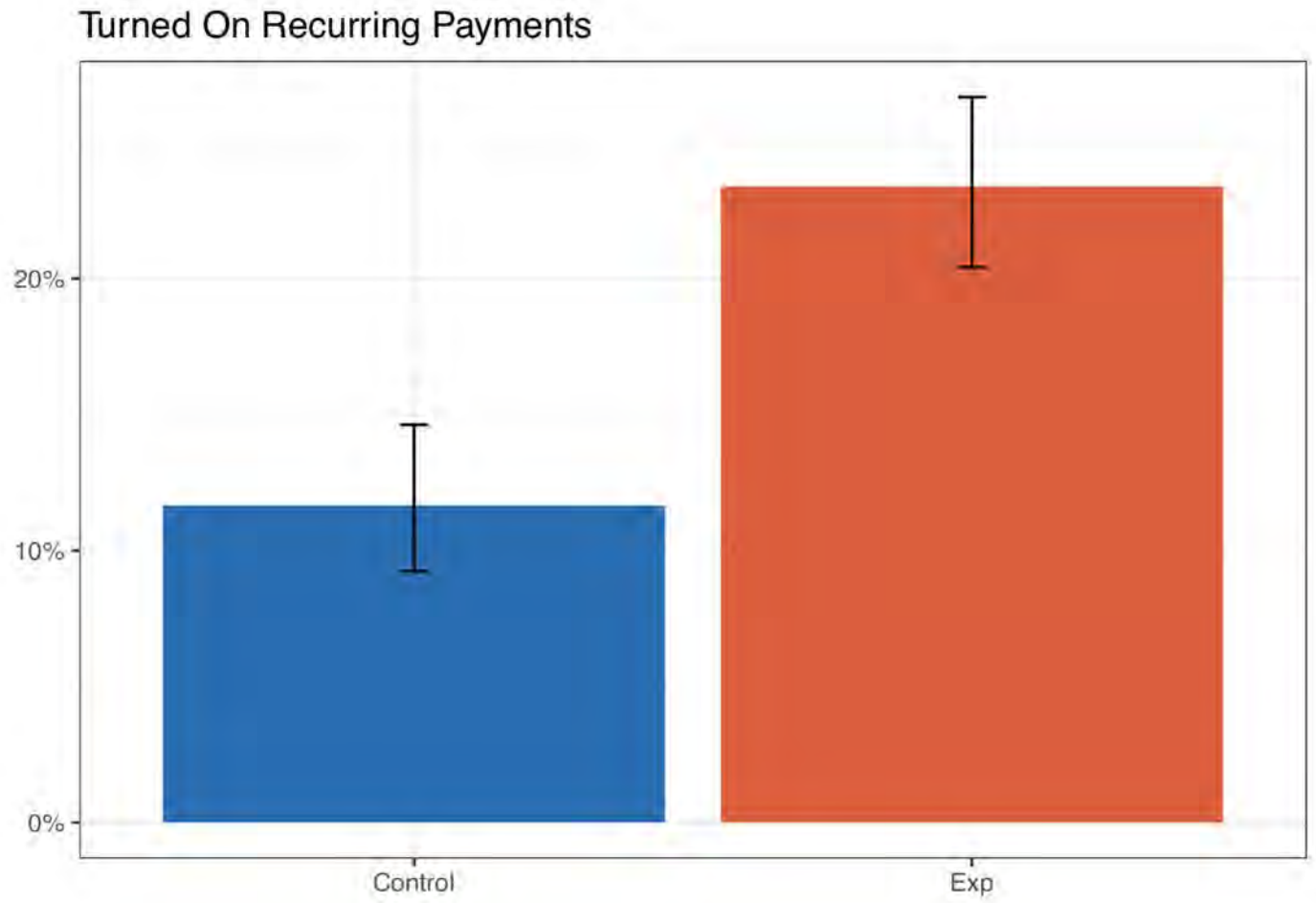
Routing Num. _____

Account Num. _____

Interest in enrolling in automatic, synced payments is equal...

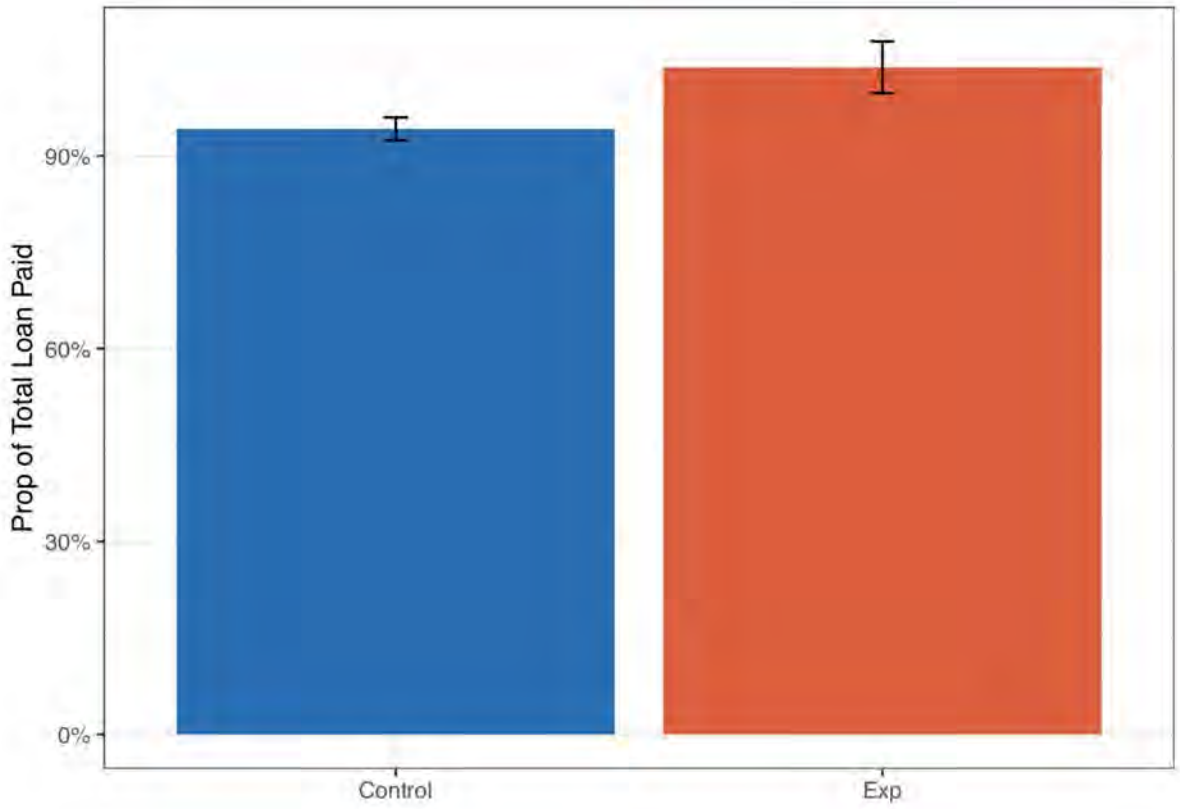


...But the texted group actually does it



Make it easy!

- The synced group was on track with their loan payments while the control was slightly behind
- Only 17 people defaulted; all were in the control group



3 Things to Remember

Most Decisions are Made with Shortcuts

Info Alone Doesn't Change Behavior

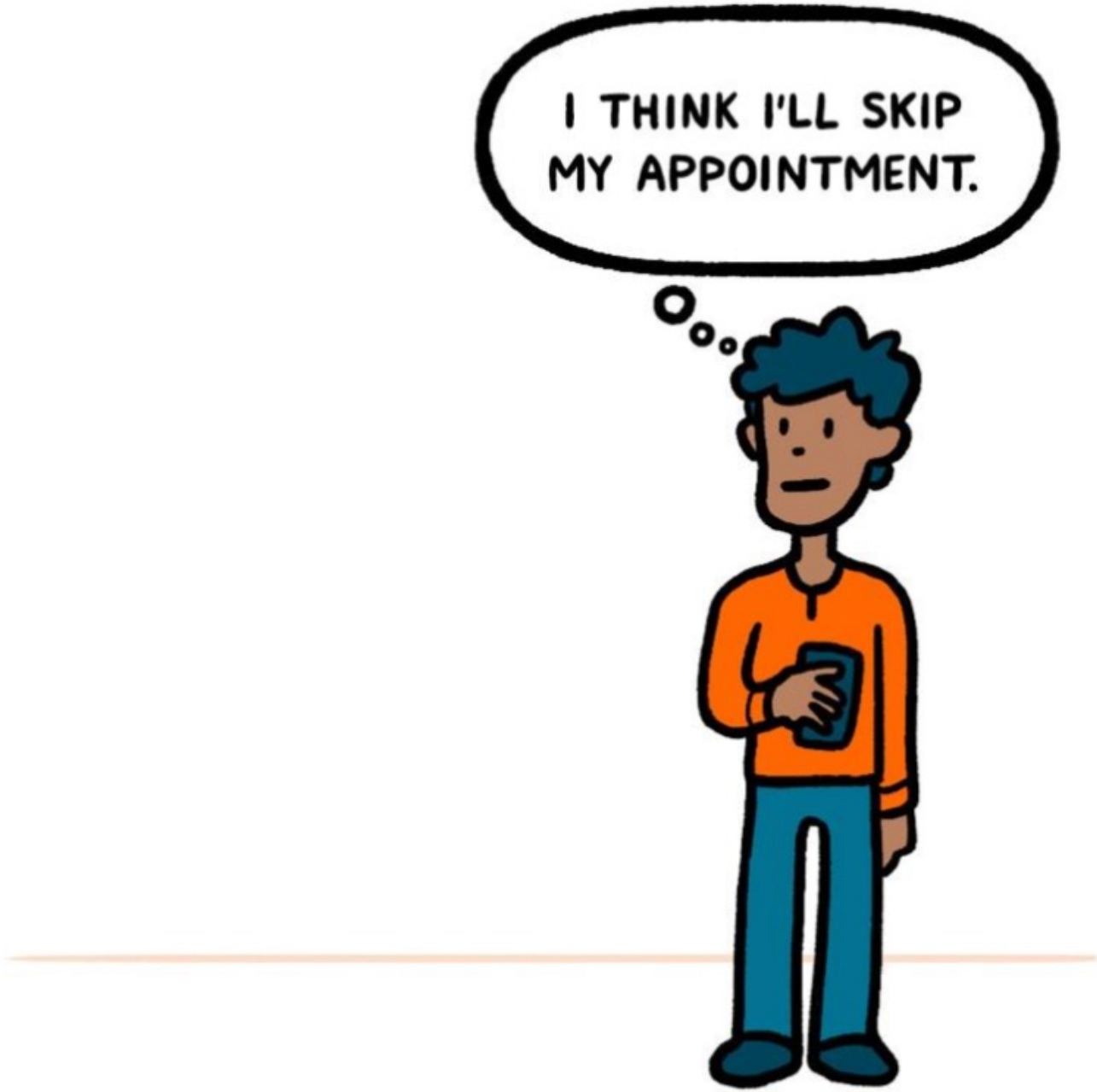
0.3%

The percent of variance in financial behaviors explained by content-based, financial education interventions*

* Based on a meta-analysis of 458 treatment effects (Kaiser, Lusardi, Menkhoff, & Urban, 2020)

Change Environment to Change Behavior

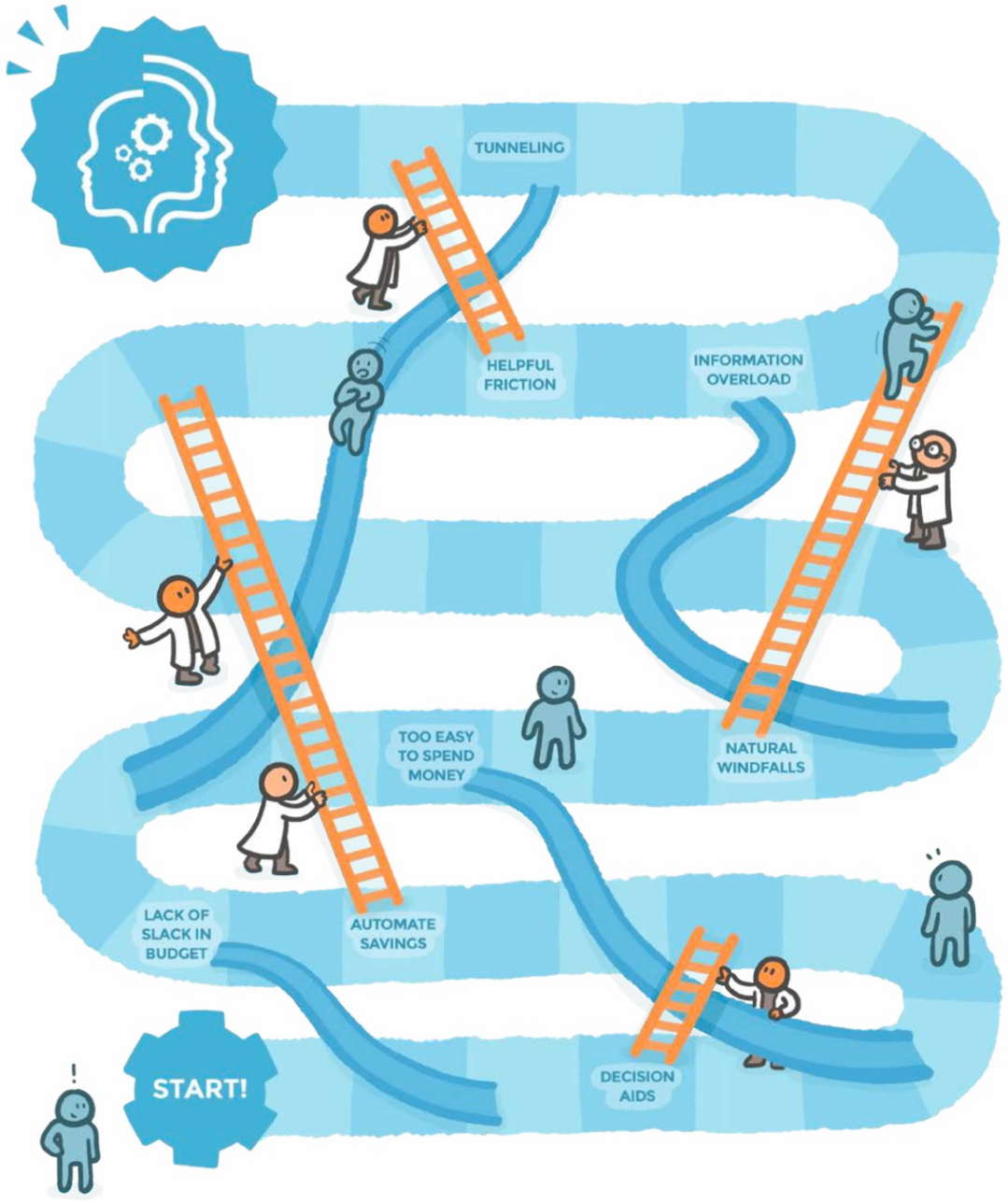
Becoming a Choice Architect


I THINK I'LL SKIP
MY APPOINTMENT.

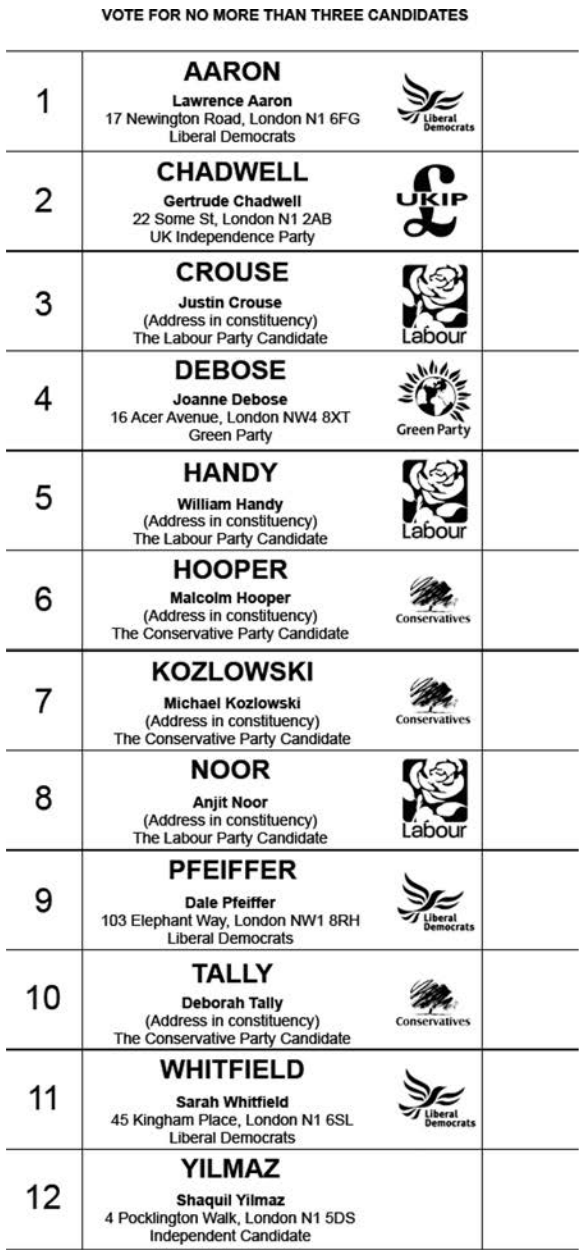
Credit Union
FREE FINANCIAL LITERACY CLASS!
MONDAYS 6:30PM
I THINK I'LL SKIP MY APPOINTMENT.
HEY!!
LOOK HERE!
HIV TEST NOW!
DEALS, DEALS, DEALS 4 YOU
ARE YOU... INSURED??
SMOKING KILLS
YOU! NEED! TO KNOW! ABOUT! CREDIT!
SAVE EARTH!
SALE
END TIME
TO DO:
BIG SALE
WET CEMENT
DID YOU RECYCLE TODAY?
50% OFF HEELS

Choice Architecture:

Designing the context in which people make decisions



There is no neutral design



VOTE FOR NO MORE THAN THREE CANDIDATES

1	**AARON** **Lawrence Aaron** 17 Newington Road, London N1 6FG Liberal Democrats	Liberal Democrats	
2	**CHADWELL** **Gertrude Chadwell** 22 Some St, London N1 2AB UK Independence Party	UKIP	
3	**CROUSE** **Justin Crouse** (Address in constituency) The Labour Party Candidate	Labour	
4	**DEBOSE** **Joanne Debose** 16 Acer Avenue, London NW4 8XT Green Party	Green Party	
5	**HANDY** **William Handy** (Address in constituency) The Labour Party Candidate	Labour	
6	**HOOPER** **Malcolm Hooper** (Address in constituency) The Conservative Party Candidate	Conservatives	
7	**KOZLOWSKI** **Michael Kozlowski** (Address in constituency) The Conservative Party Candidate	Conservatives	
8	**NOOR** **Anjit Noor** (Address in constituency) The Labour Party Candidate	Labour	
9	**PFEIFFER** **Dale Pfeiffer** 103 Elephant Way, London NW1 8RH Liberal Democrats	Liberal Democrats	
10	**TALLY** **Deborah Tally** (Address in constituency) The Conservative Party Candidate	Conservatives	
11	**WHITFIELD** **Sarah Whitfield** 45 Kingham Place, London N1 6SL Liberal Democrats	Liberal Democrats	
12	**YILMAZ** **Shaquil Yilmaz** 4 Pocklington Walk, London N1 5DS Independent Candidate		

This is your ballot. It’s your choice.

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It’s good to be named Aaron if your voting board uses alphabetical ballots!

We are all choice architects

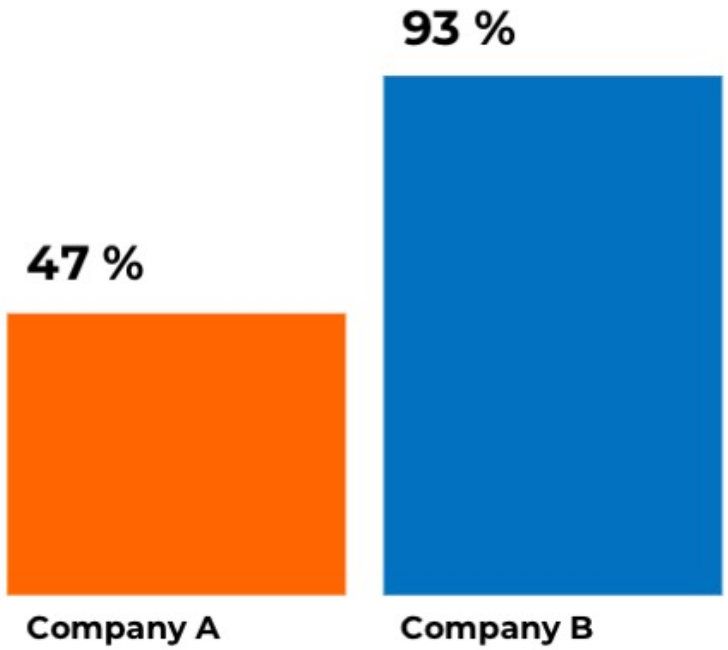
Becoming a “behaviorally-informed” choice architect

Behavioral Science

informs

Diagnosis

What drives the decision to save for retirement?



Voluntary enrollment:

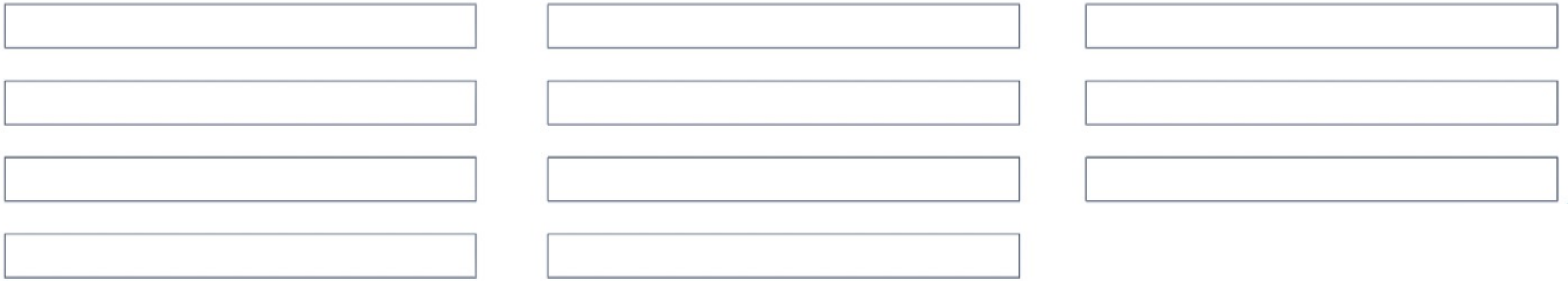
Opt-in if you **want to save for retirement**

Default enrollment:

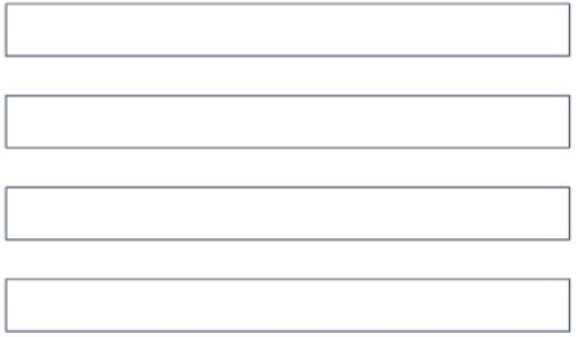
Opt-out if you **don't want to save for retirement**

Every form,
every click,
every field,
every signature,
every step,
every call,
every **choice matters**

Let’s say we have a form with 11 fields...



...we reduce it to 4 fields



+160%

form submissions

The paradox of choice:

How much choice is too much?

75%
participation

72%
participation

67.5%
participation

The paradox of choice:

How much choice is too much?

Each additional 10 investment choices
cut participation rates by an additional 2%

Behavioral Science

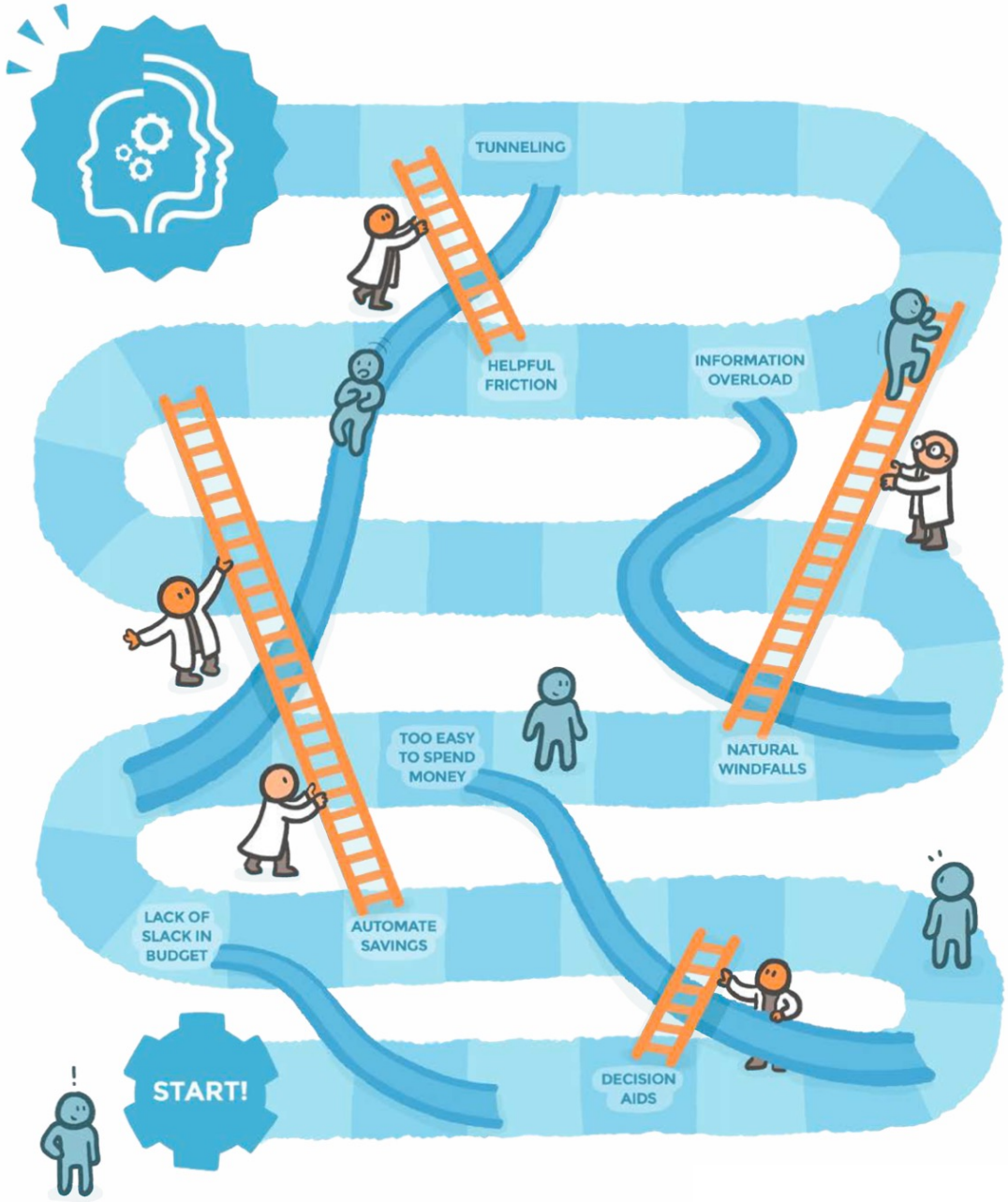
informs

Design decisions

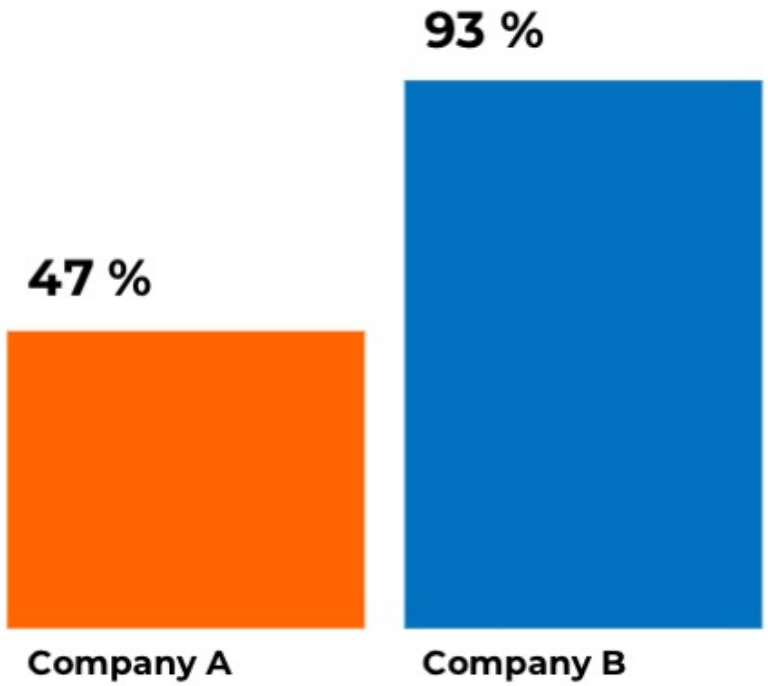
from
Changing minds

to
Changing environments

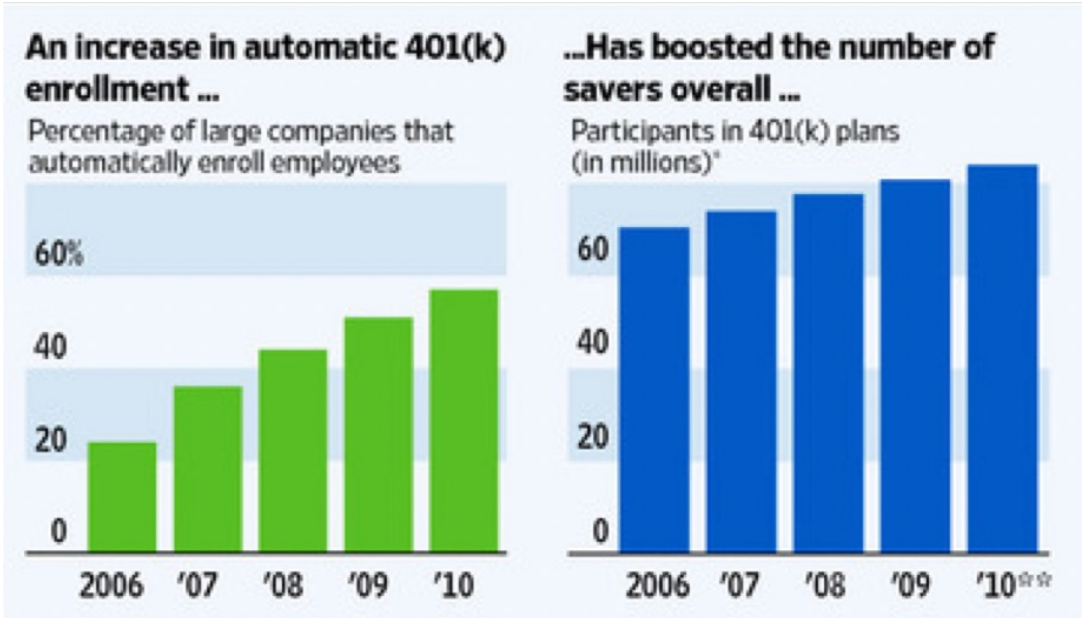
Set your users up for success by making it easy!



Solution 1: Use defaults (wisely)



"The biggest thing to happen to America's saving rate"



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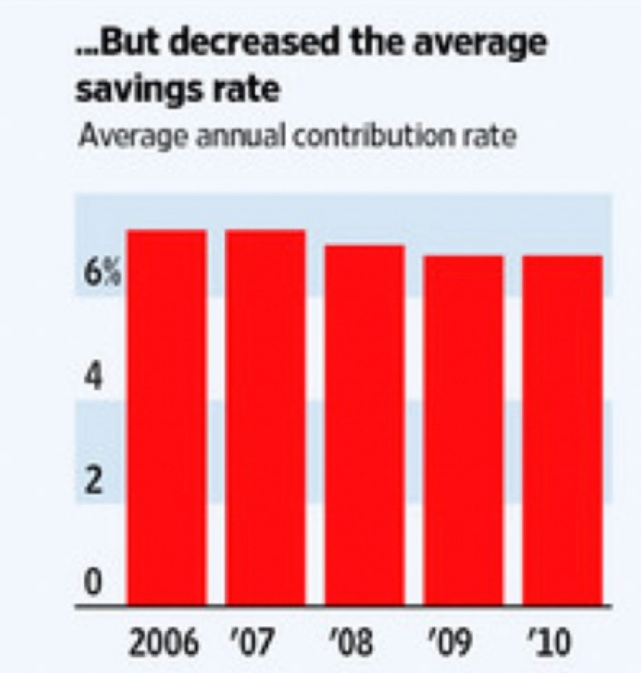
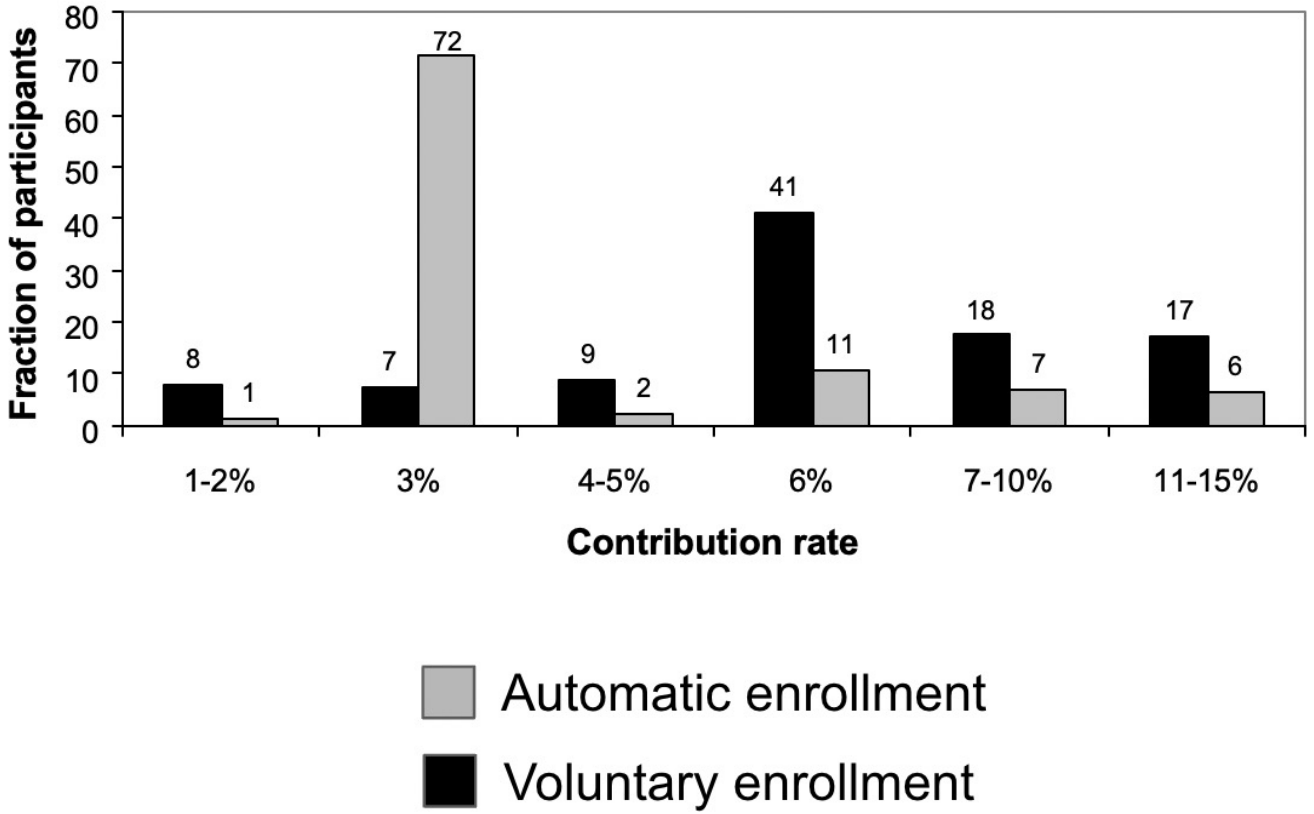
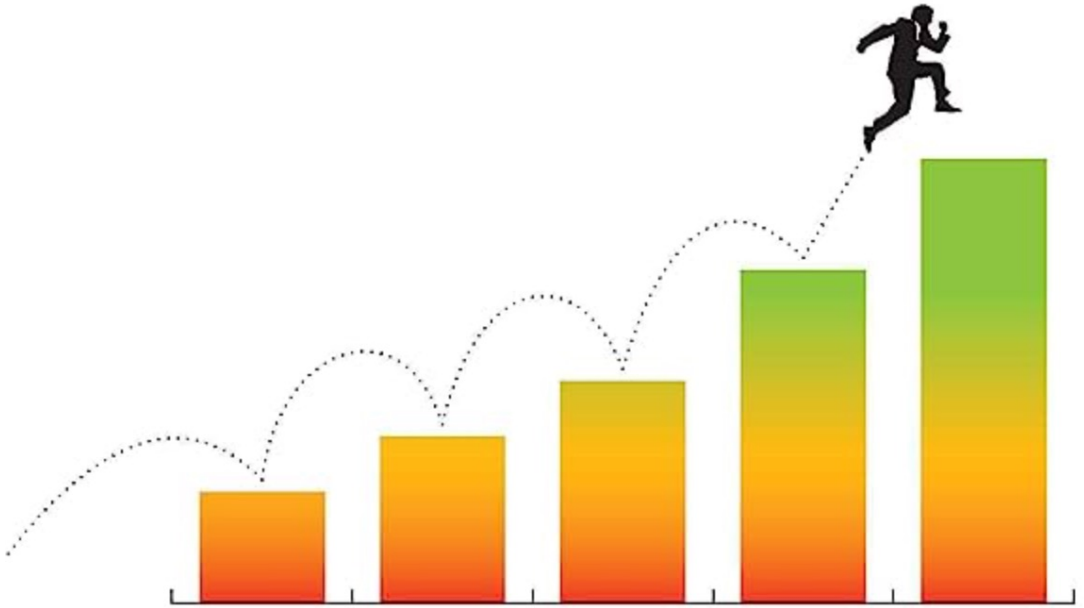




Solution 2: Automate the right behavior

Save More Tomorrow:

- Payroll-based savings
- Pre-commit today for future raises tomorrow
- **Automatic escalation** with each pay rise
- Opt-out at any time

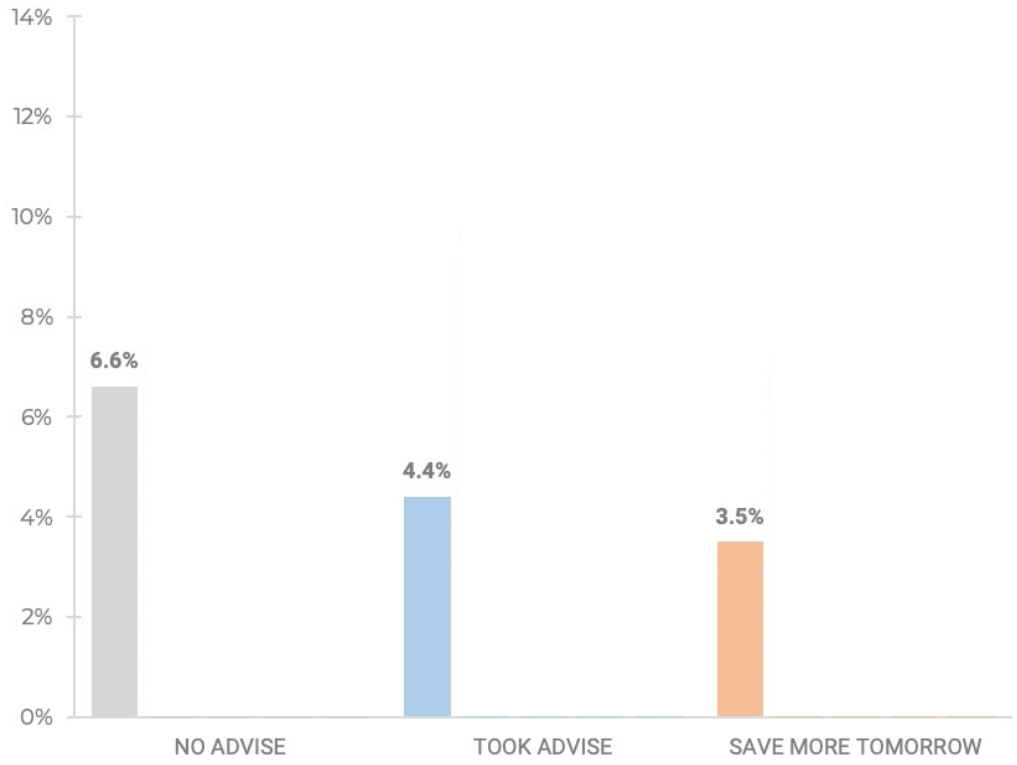


Solution 2: Automate the right behavior

Save More Tomorrow:

- Payroll-based savings
- Pre-commit today for future raises tomorrow
- **Automatic escalation** with each pay rise
- Opt-out at any time

Saving rates **before** pay rise…

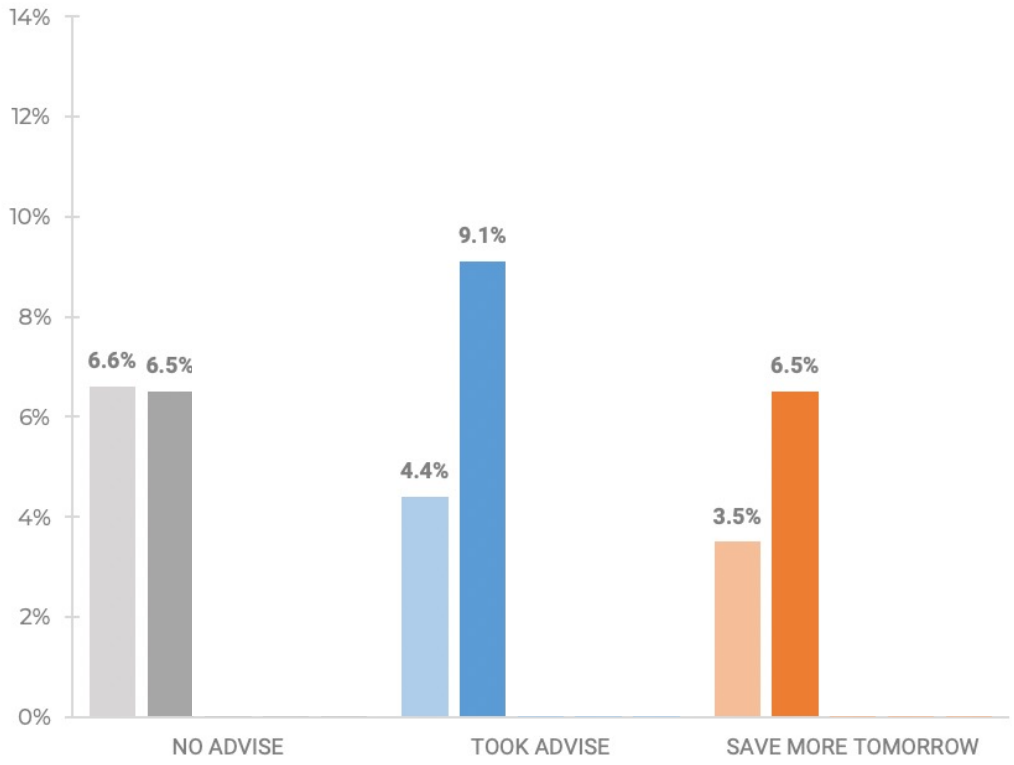


Solution 2: Automate the right behavior

Save More Tomorrow:

- Payroll-based savings
- Pre-commit today for future raises tomorrow
- **Automatic escalation** with each pay rise
- Opt-out at any time

Saving rates after 1st pay rise…



Solution 2: Automate the right behavior

Save More Tomorrow:

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- Pre-commit today for future raises tomorrow
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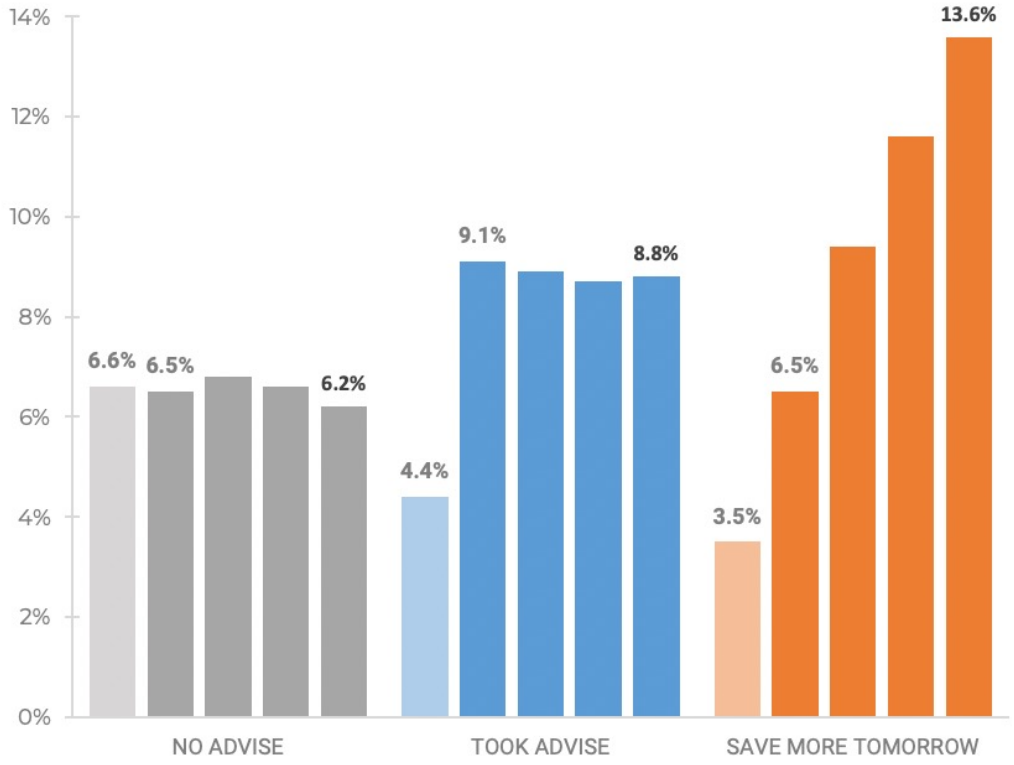
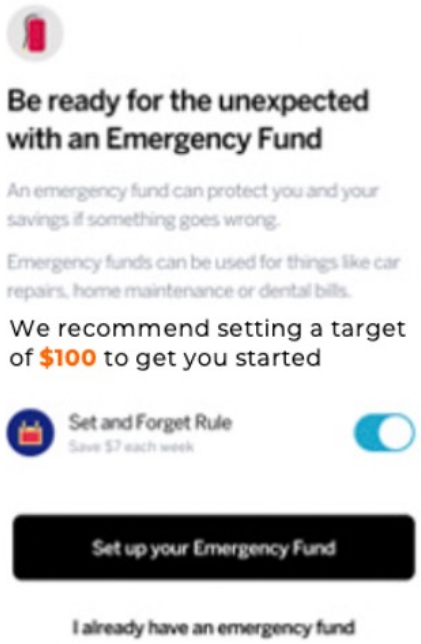
Fast forward to **4th pay rise**…

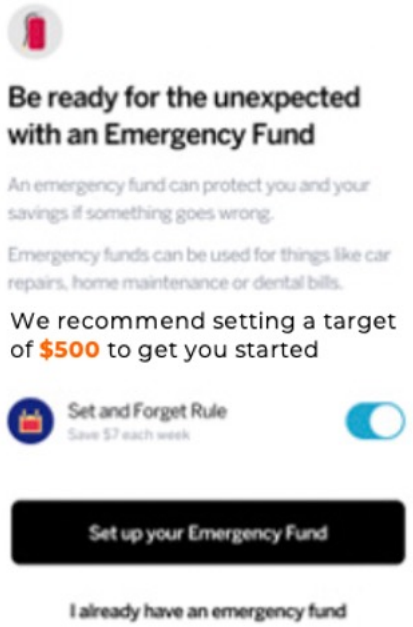


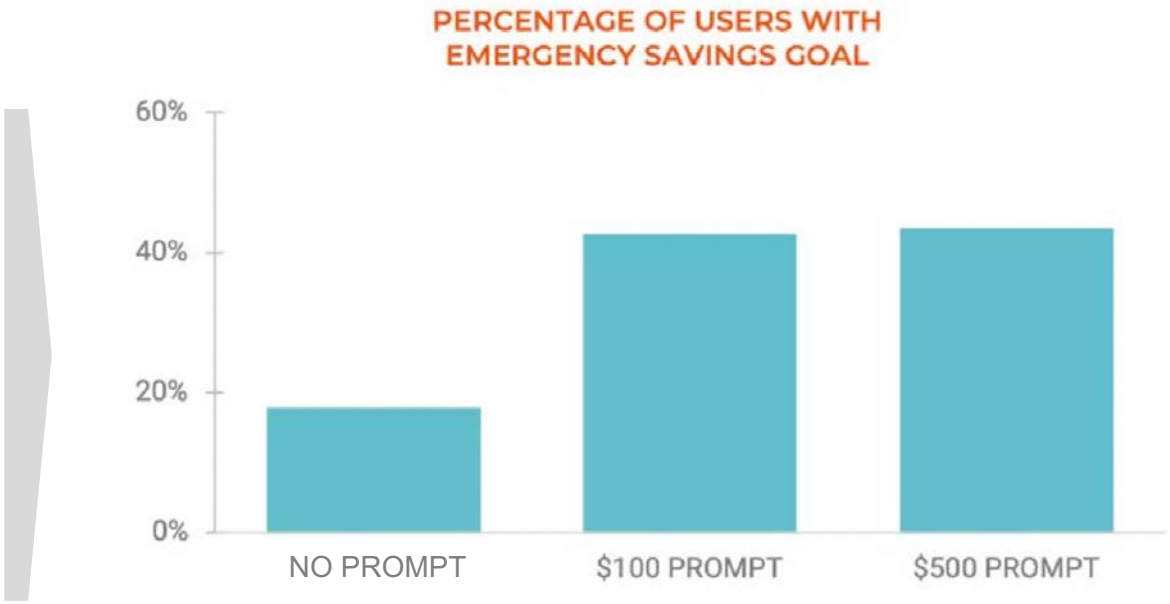
Solution 3: Simplify complex choice

Condition 1:
$100 prompt

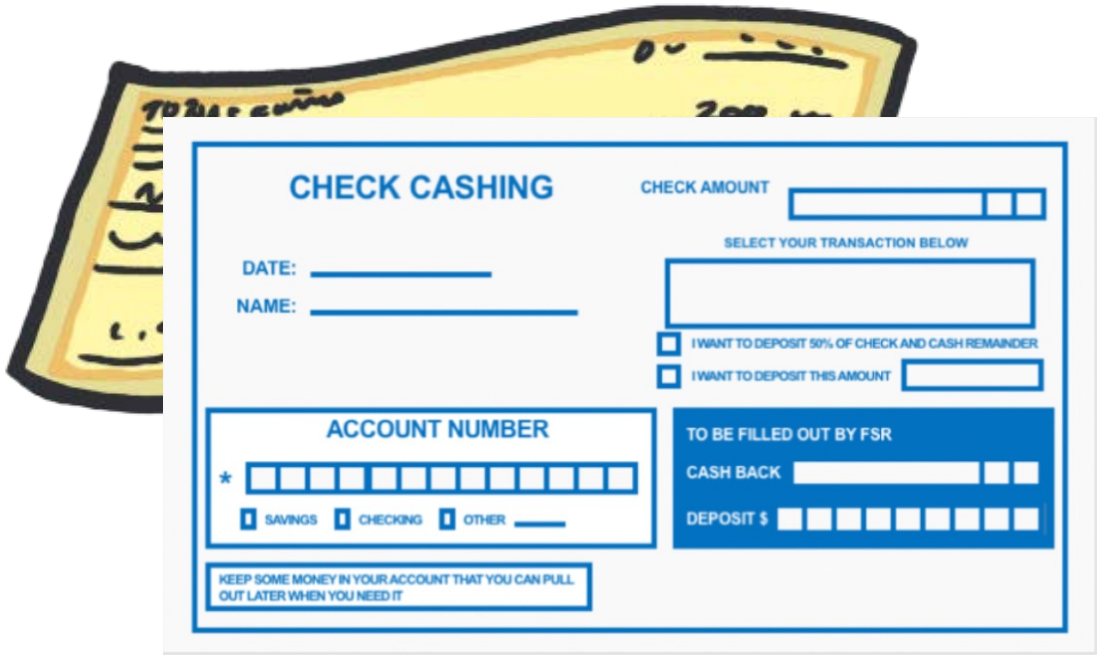


Condition 1:
$500 prompt





Solution 4: Add friction when necessary



9.26%

decided to make a deposit

$262

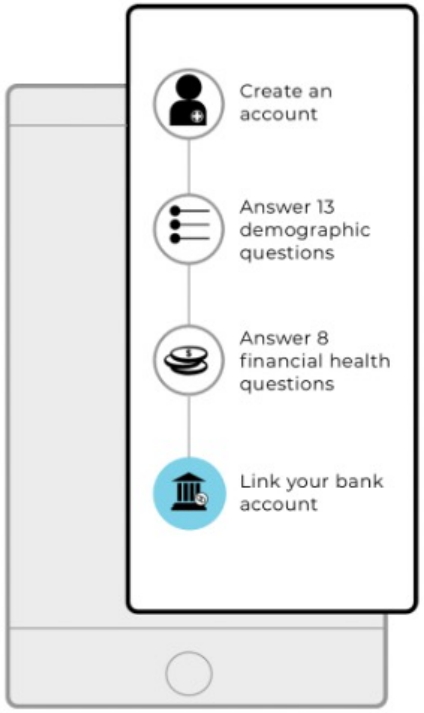
deposited on average

2.1M

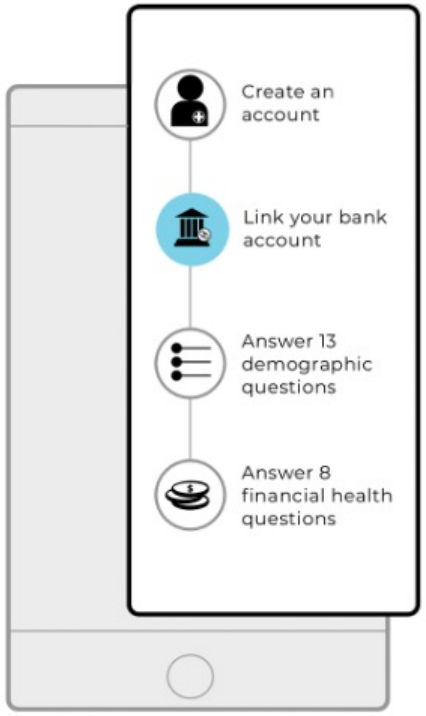
yearly deposits estimate

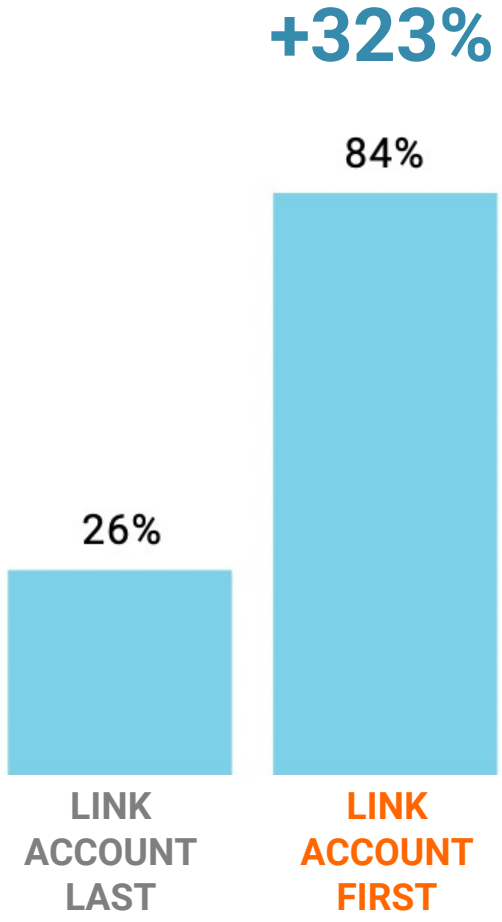
Bonus Track: structural changes do not need to be costly

Control:
Link account last



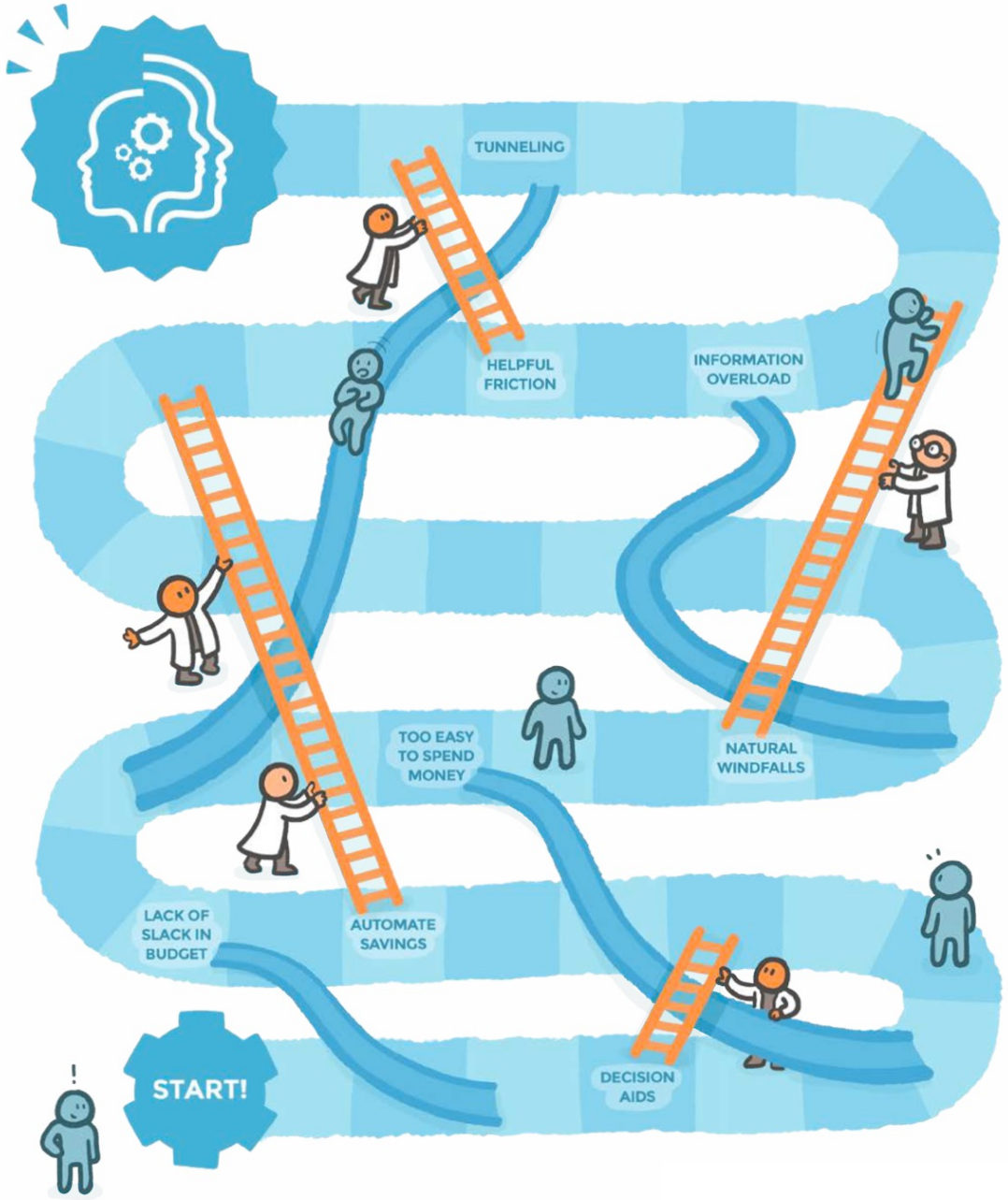
Condition:
Link account first





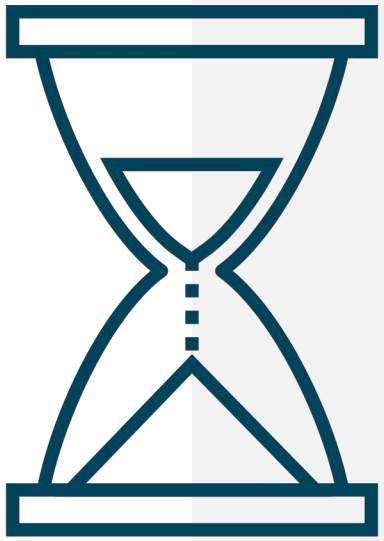
Set your users up for success by making it easy!

1. Use defaults (wisely)
2. Automate the right behavior
3. Simplify complex choice
4. Add friction when necessary



Layering Interventions for Maximum Effect

To what age do you expect to live?



By what age do you expect to die?

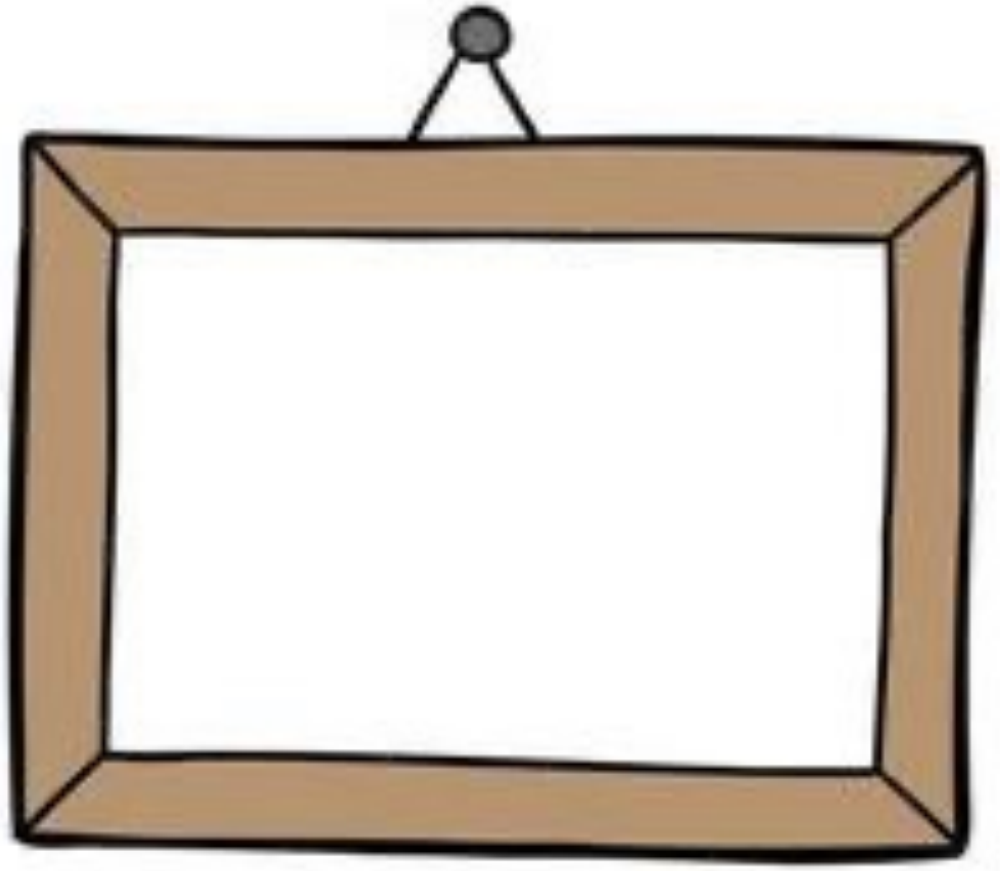
85.0

75.1

Payne et al., 2013

Framing effect

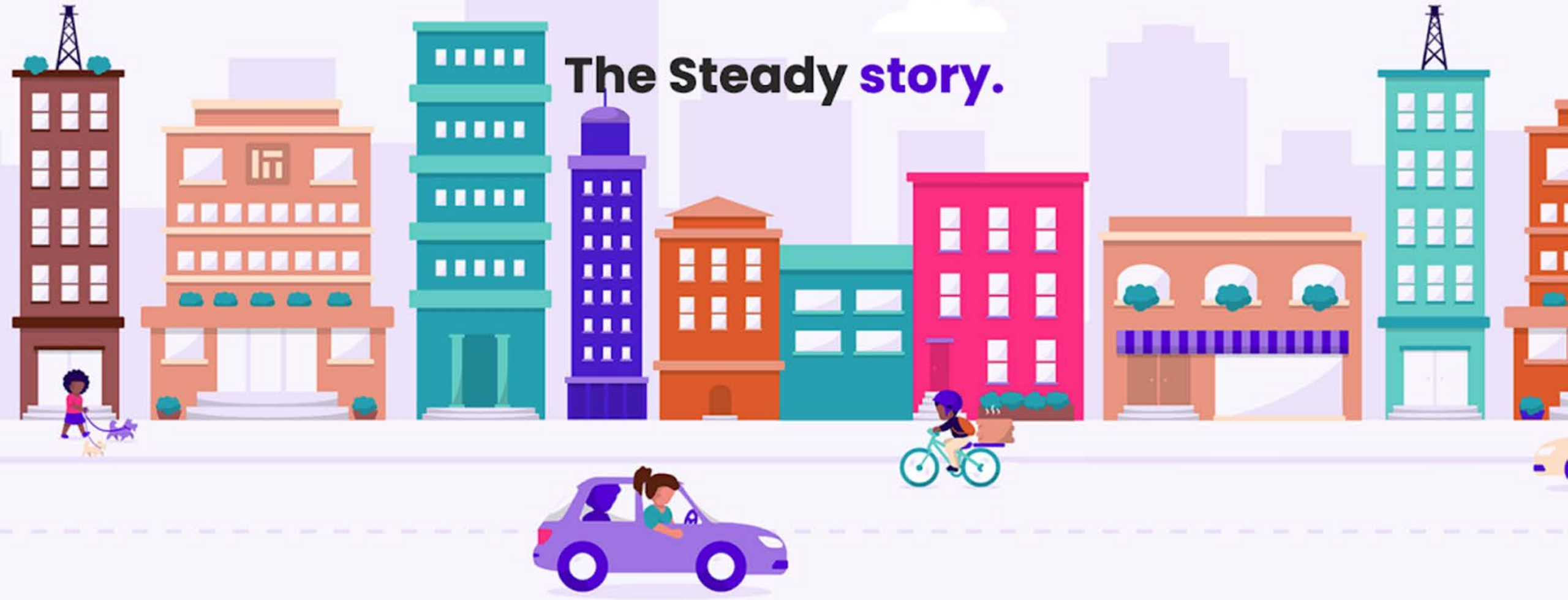
Our decisions are impacted by the way in which choices are framed through copywriting, imagery, tone and placement.



Grab attention and emphasize immediate benefits

Steady

The Steady story.



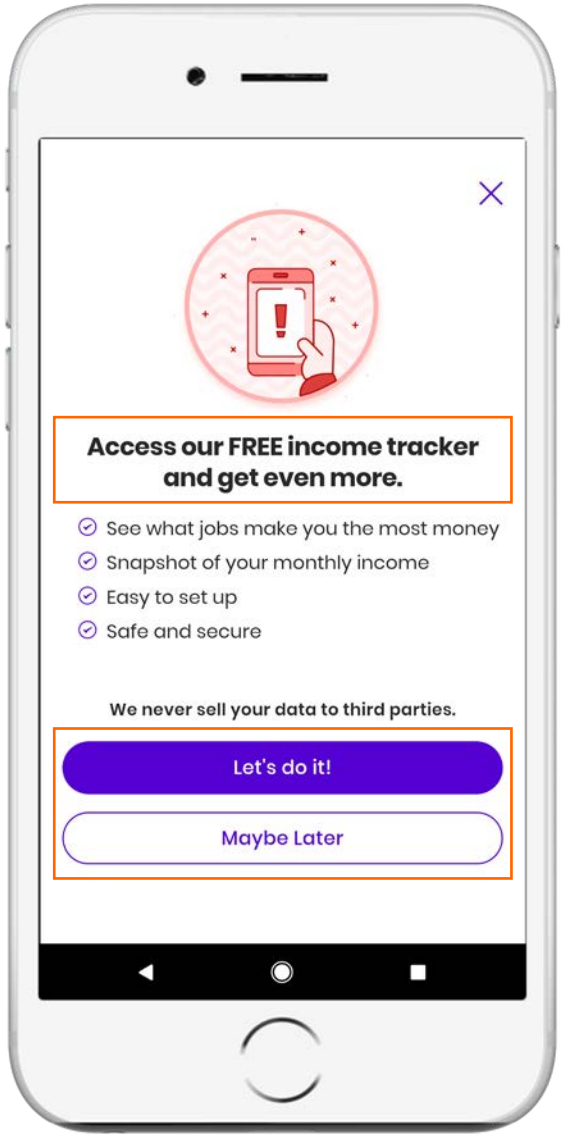
Identify psychological barriers at play

Status quo bias: Skipping this step is easy and the costs are invisible.

Procrastination: Behaviors without a deadline are pushed into an optimistic future.

Intention-action gap: “Maybe” or “later” becomes no, despite out best intentions.

Control



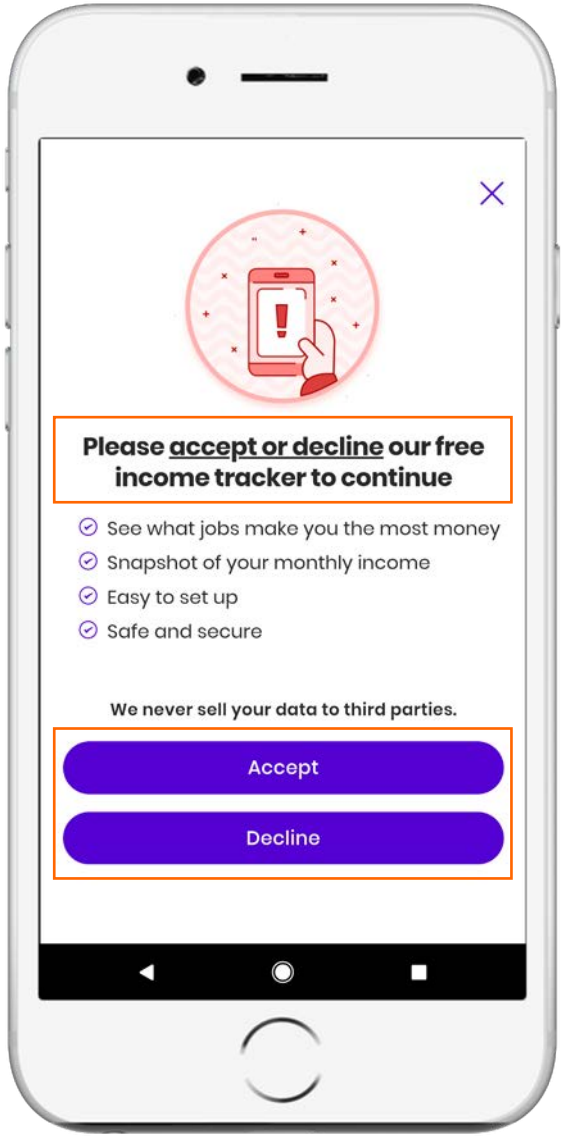
Emphasize or add benefits to change behavior now

Status quo bias: Skipping this step is easy and the costs are invisible.

Procrastination: Behaviors without a deadline are pushed into an optimistic future.

Intention-action gap: “Maybe” or “later” becomes no, despite out best intentions.

Forced choice

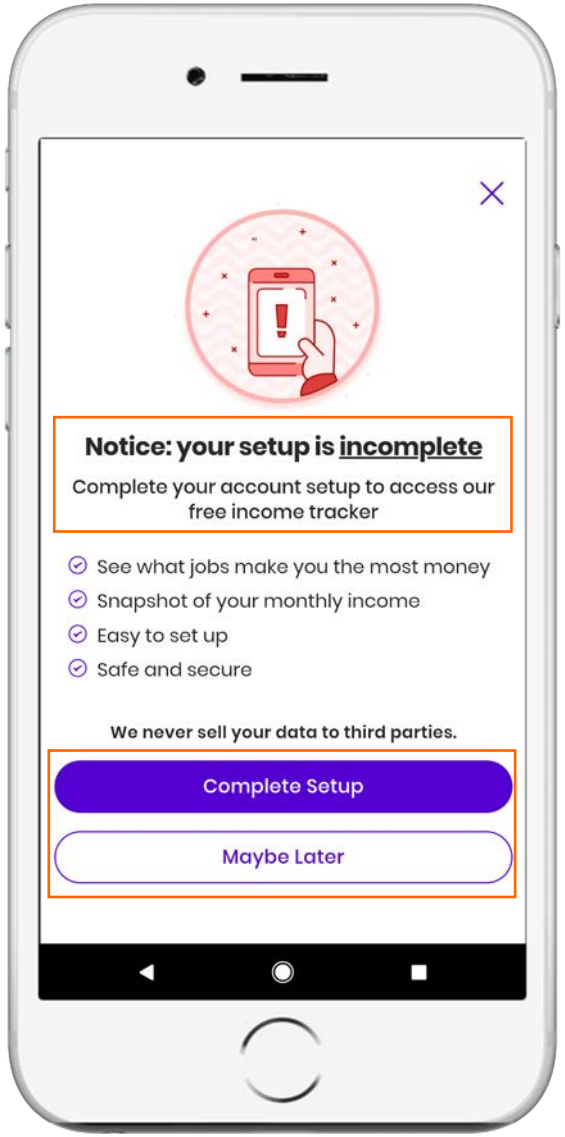


Emphasize or add benefits to change behavior now

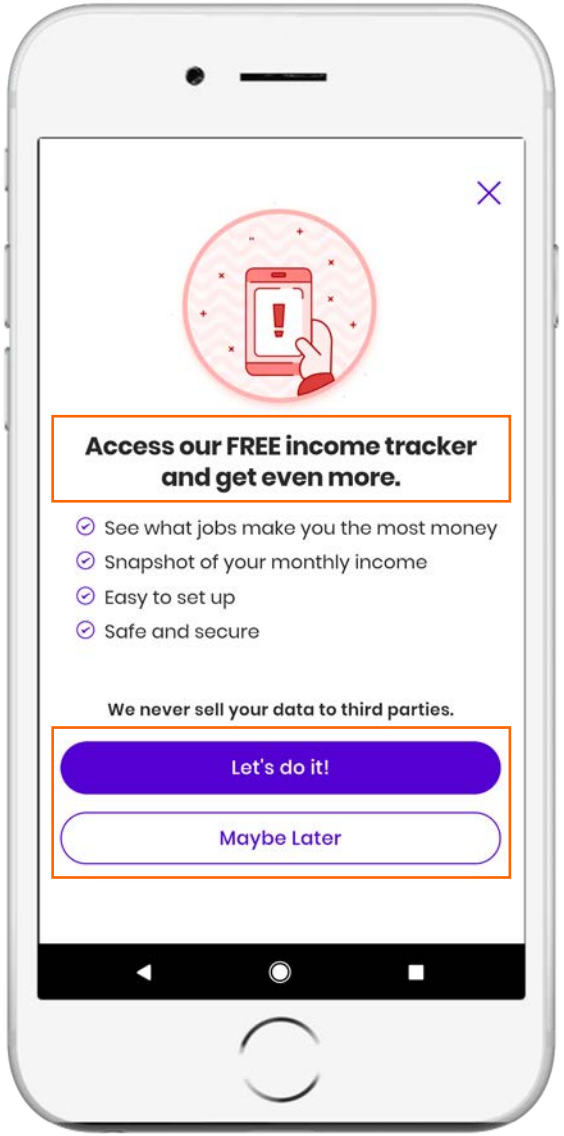
Completion bias: As the end approaches, people become more motivated to complete a task.

Error avoidance: People look for order and harmony and seek to fix what's broken.

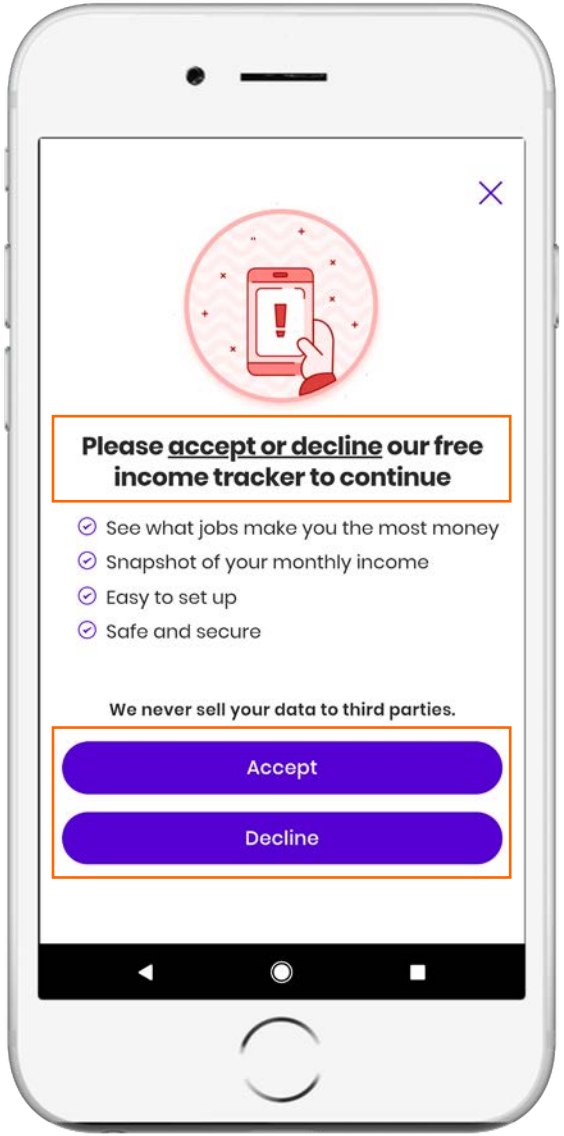
Incomplete information



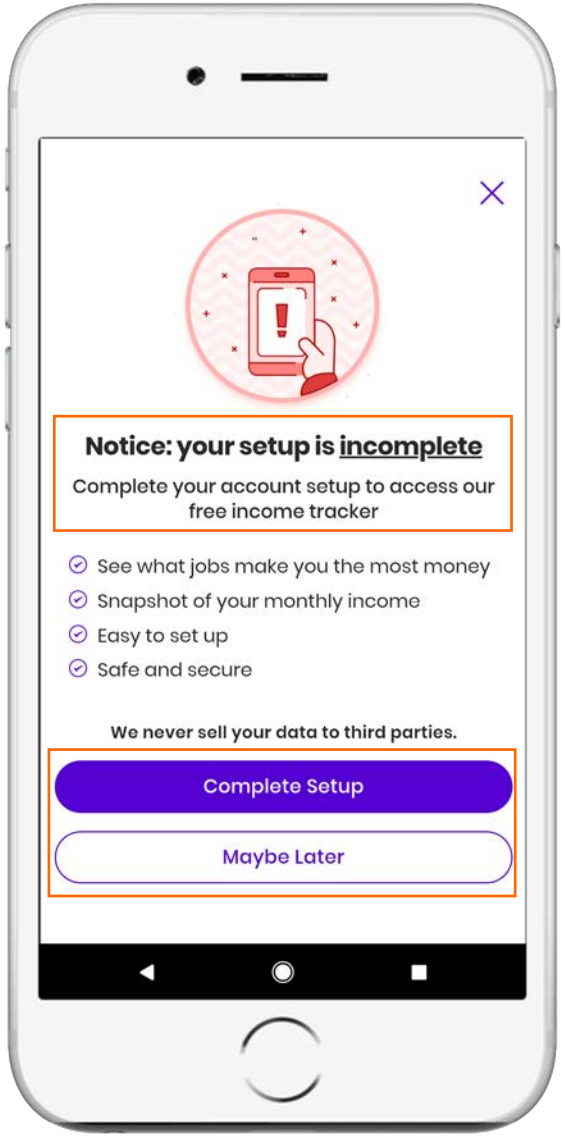
Control



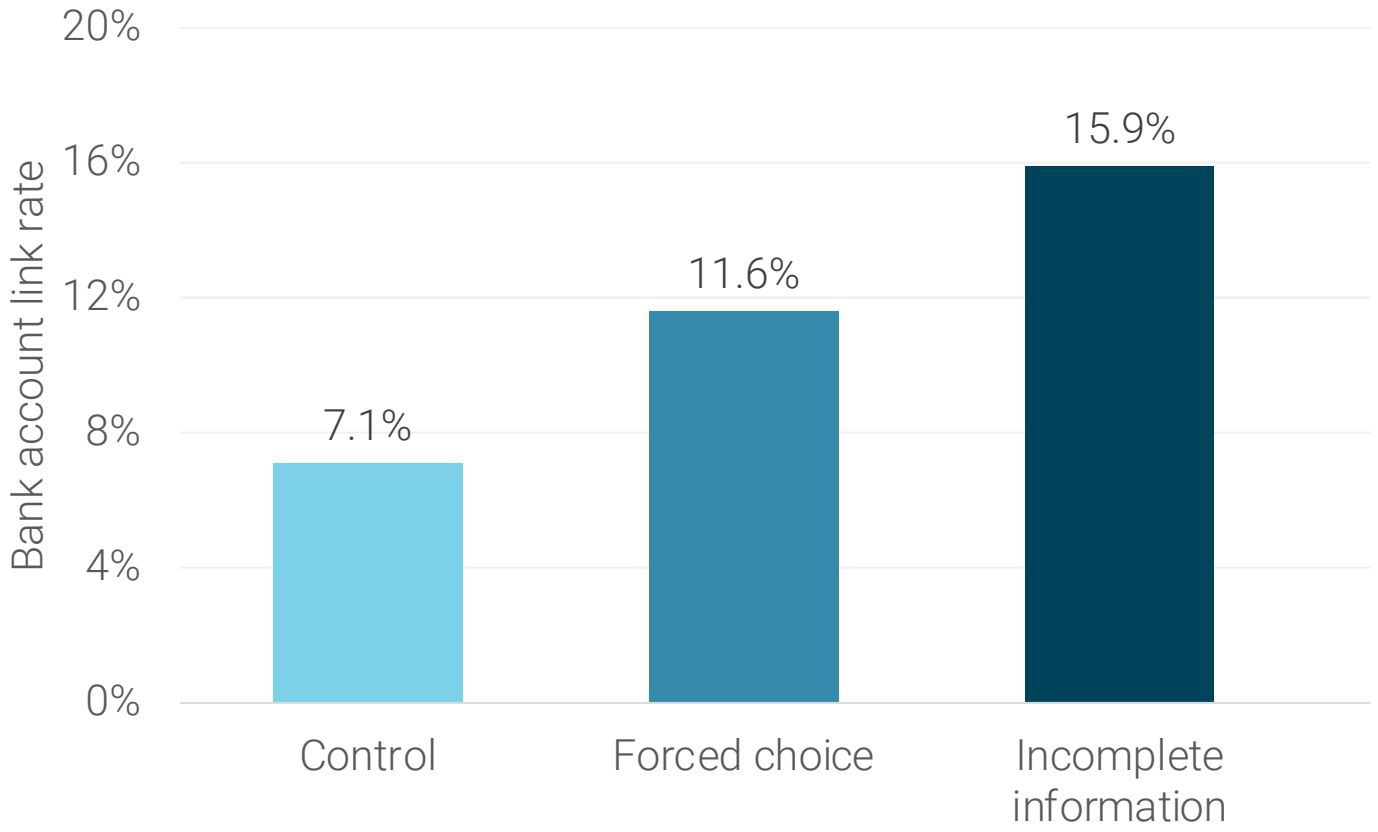
Forced choice



Incomplete information

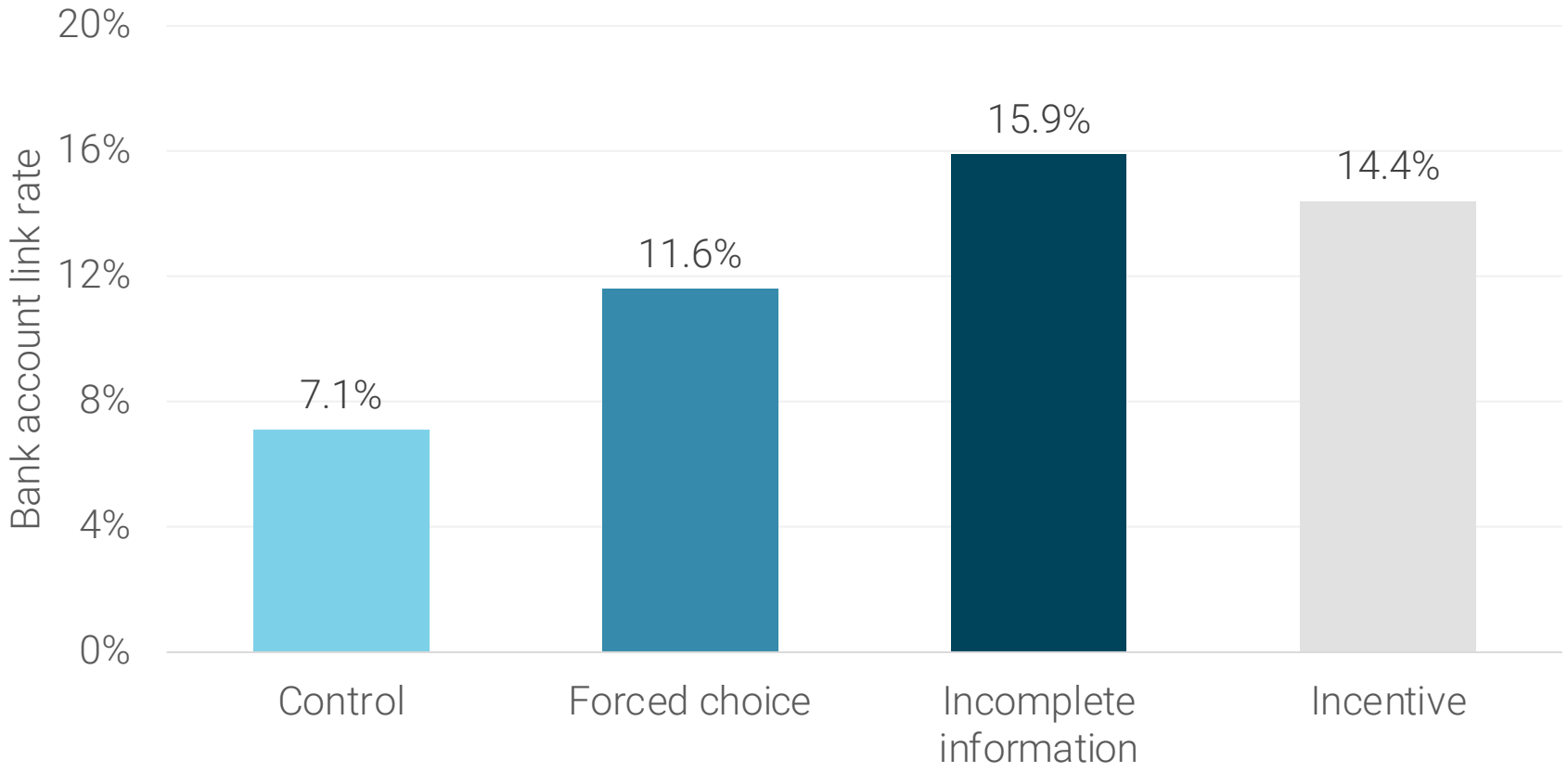


Both conditions led to higher link rates compared to the control



All conditions statistically significantly different at $p < 0.001$

Both conditions led to higher link rates compared to the control



All conditions statistically significantly different at $p < 0.001$

Use contextual and social cues to guide behavior

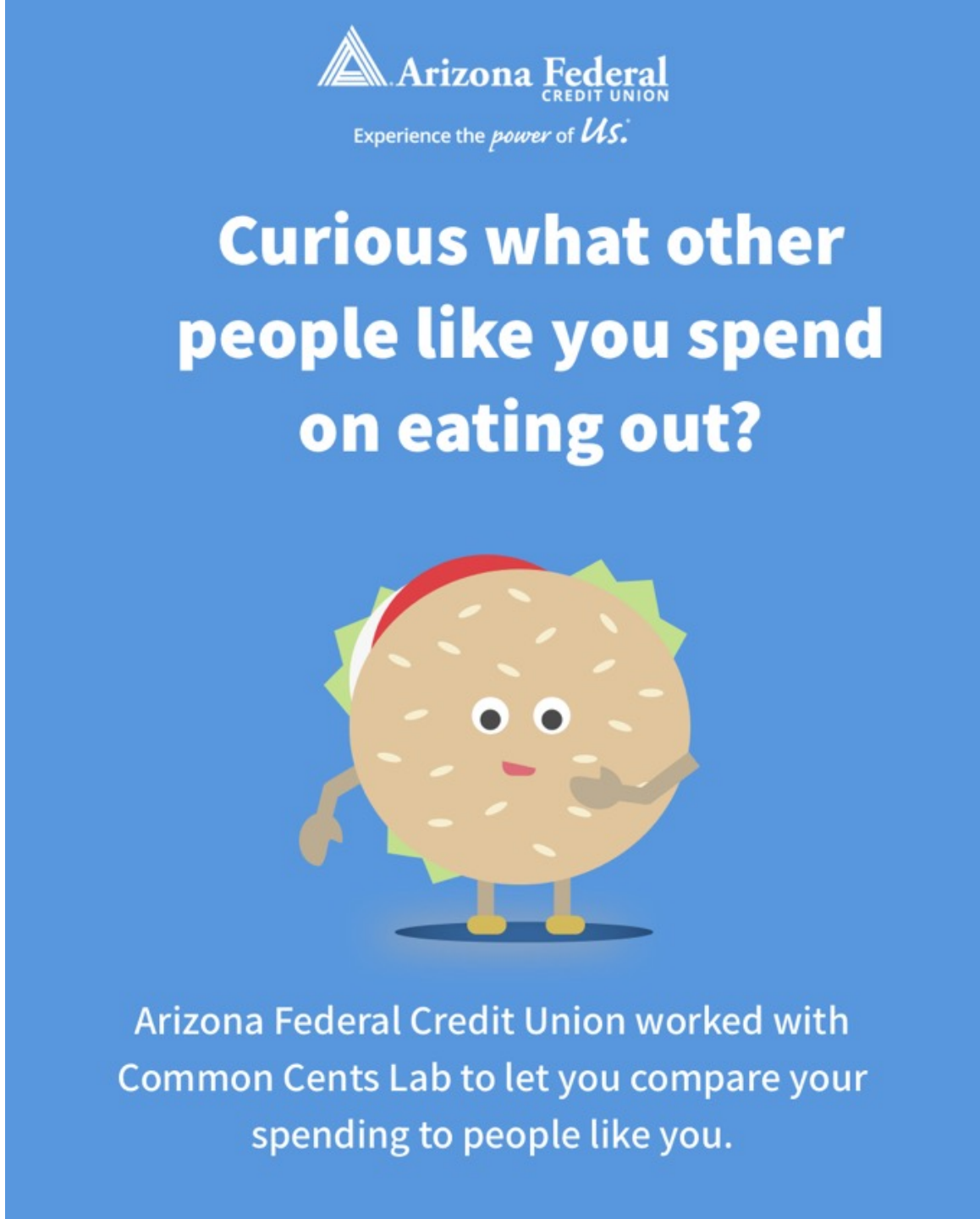
Social norms

People's behaviors are shaped by **what others do** (descriptive norms) & by **what others think they should do** (injunctive norms).

Why do social norms work?

- Form accurate perceptions of reality
- Develop meaningful relationships
- Maintain favorable self concept

How might we use social norms to help people decrease their spending?

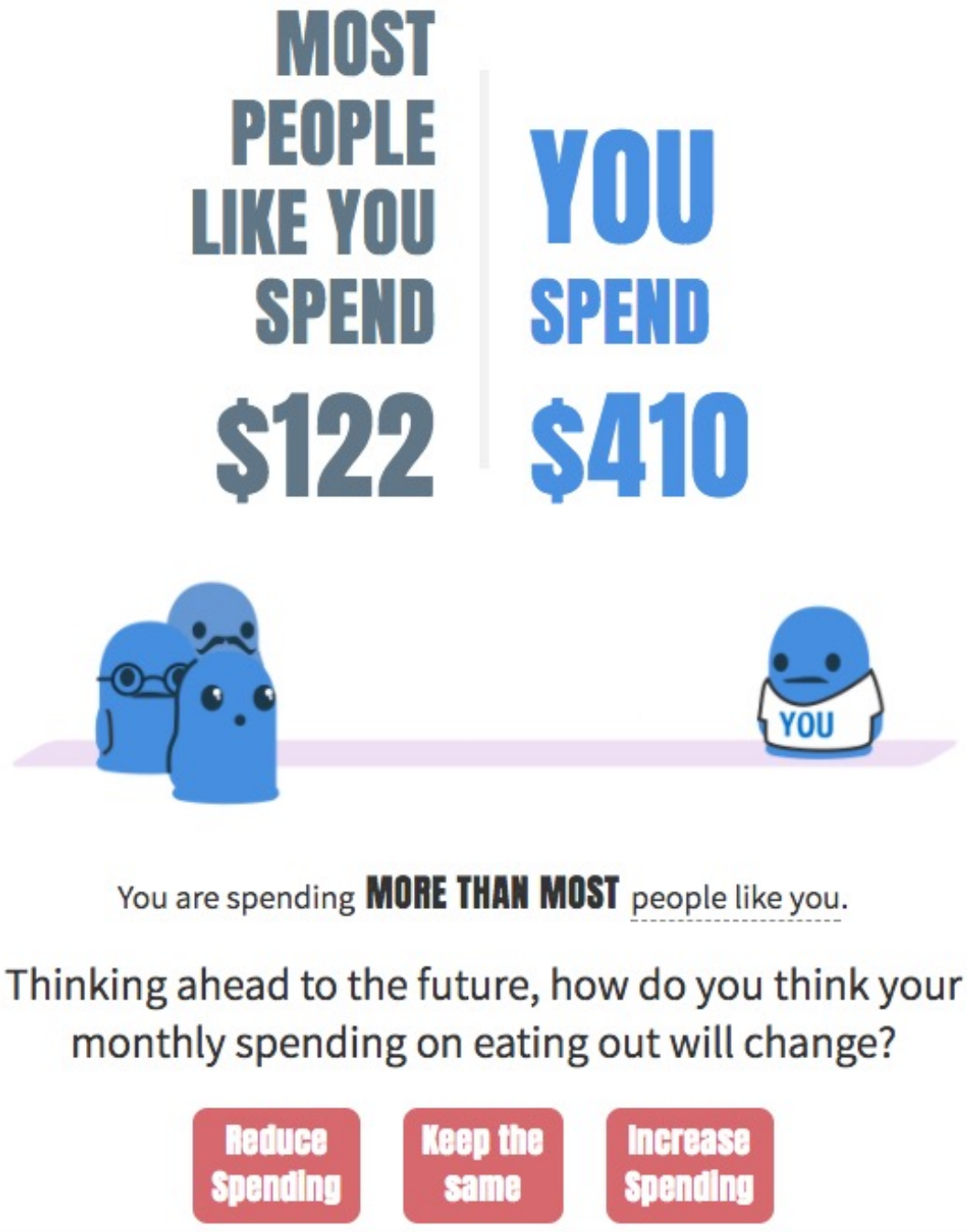


MOST PEOPLE LIKE YOU SPEND	YOU SPEND
$122	$410

You are spending **MORE THAN MOST** people like you.

Thinking ahead to the future, how do you think your monthly spending on eating out will change?

Reduce Spending | Keep the same | Increase Spending



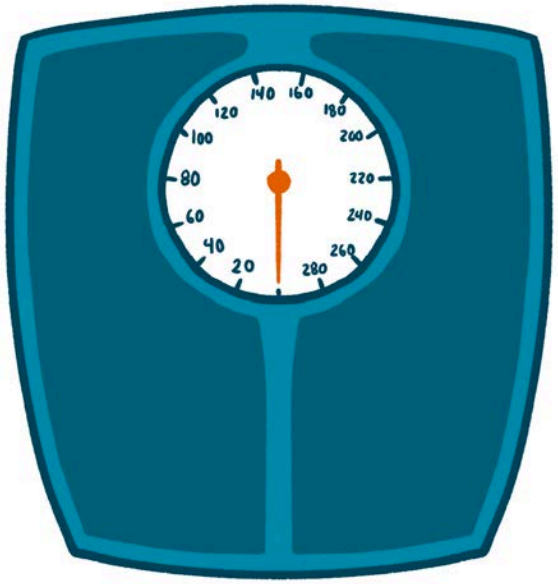
$17

Decrease in spending among people who were told they were overspending very badly.

Prompt users when most receptive

Natural “moments” of receptiveness

Activity-driven	Gmail prompts
Daily	Scale before breakfast
Monthly/bimonthly	Payday
Annual	New Year’s resolutions
Season of life	Birth of a child



Natural “moments” of receptiveness

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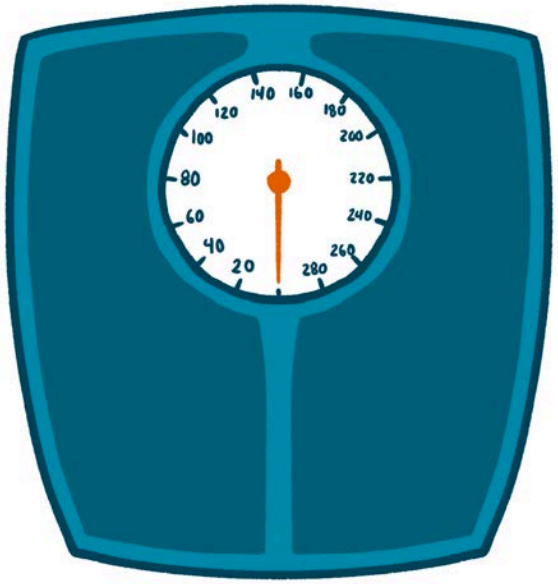
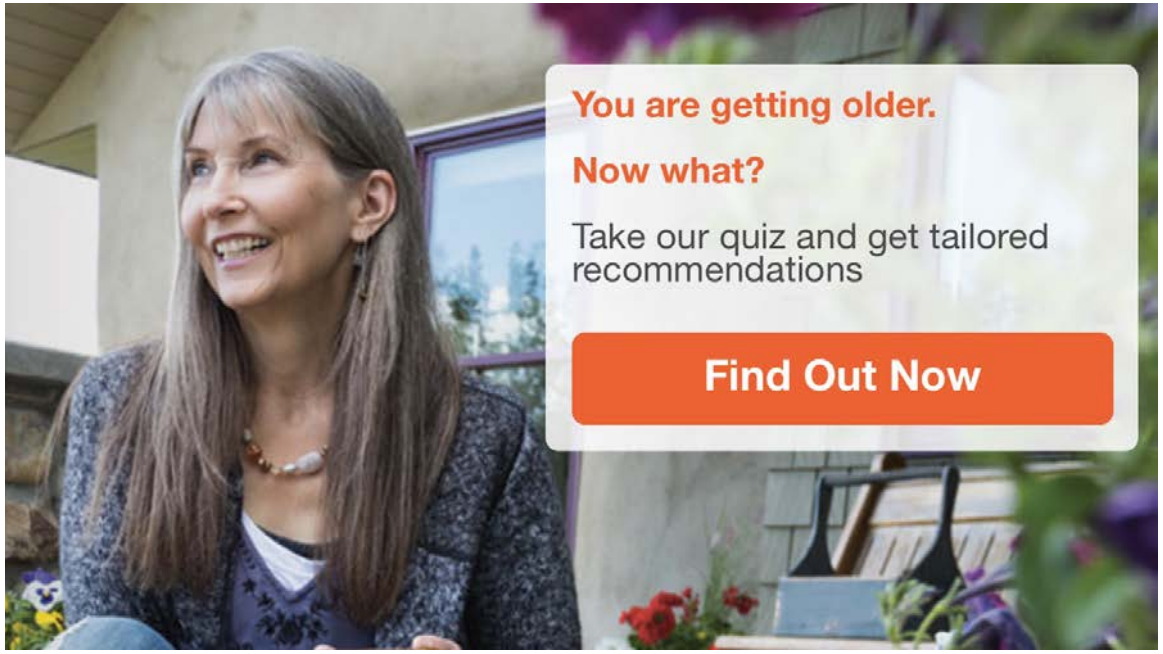


What should you do when there’s no natural moment?

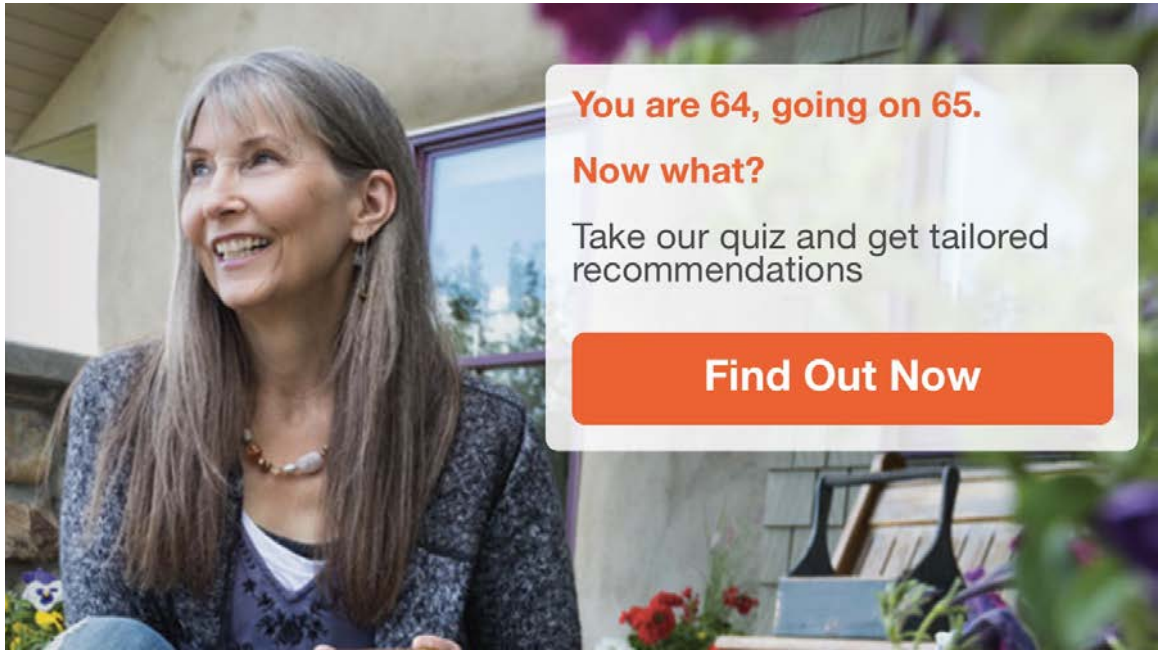
Creating a moment

Creating a moment

Control Condition

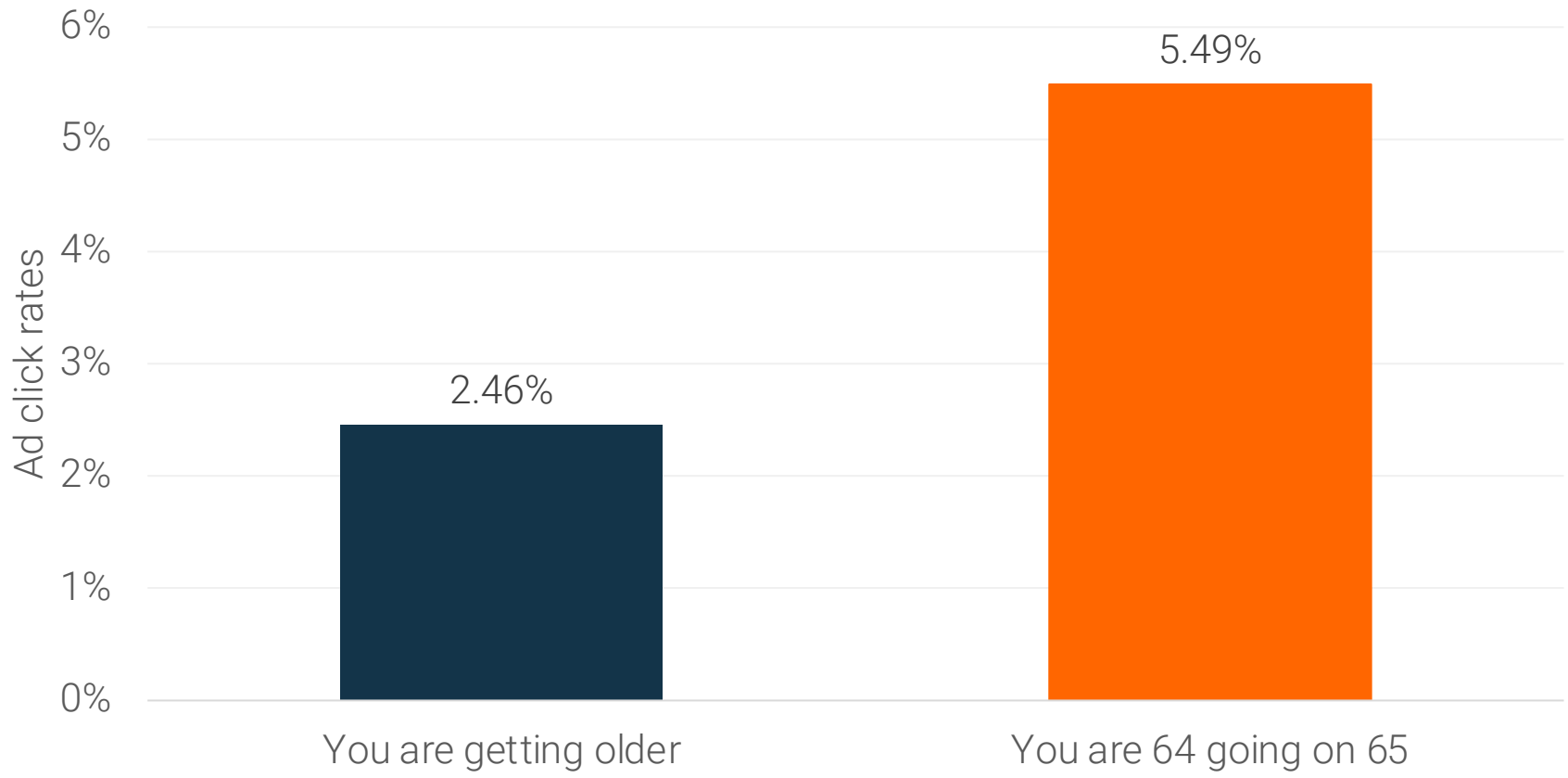


Experimental Condition



Creating a moment

Using age milestones more than doubled click-through rates.

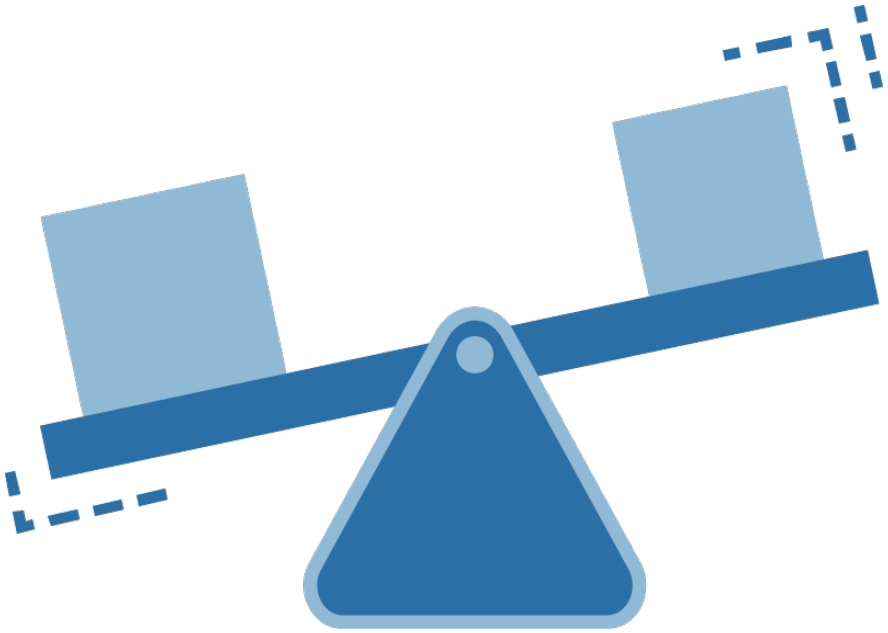


Fresh start effect

We are more likely to take action on a goal after a special occasion or significant date.

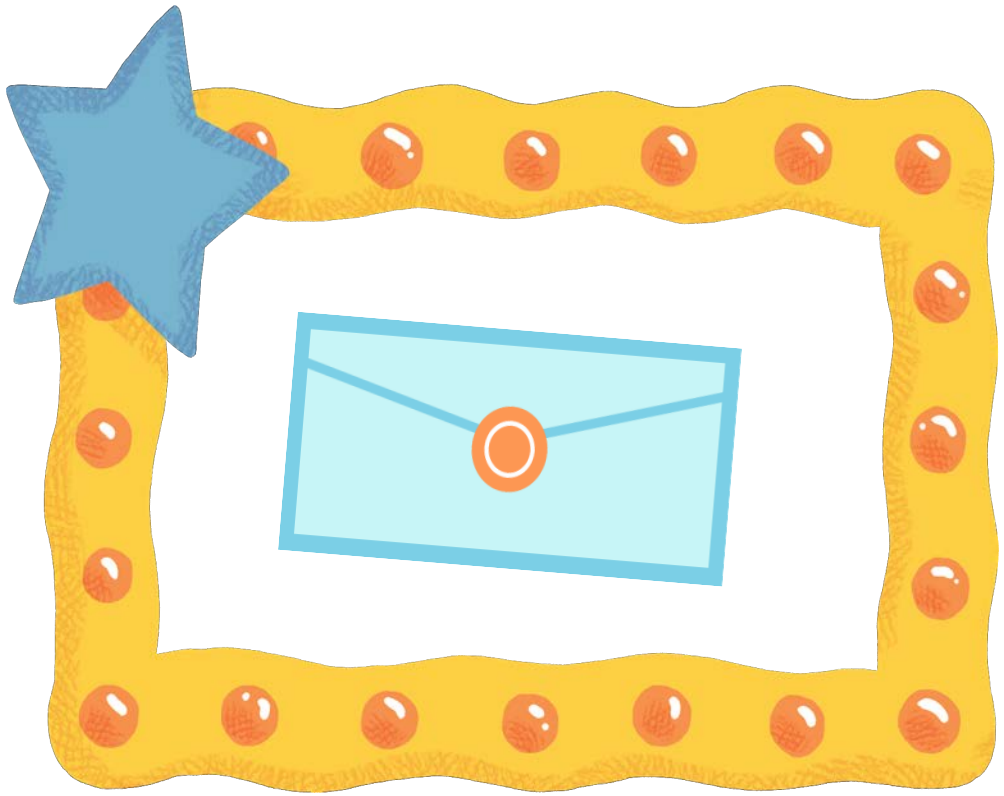
What are the tradeoffs?

- Cheaper and faster to implement but may have lower returns
- Can reach people in the moment but don't help form a habit
- Can powerfully invoke behavioral principles but can also have unintended consequences



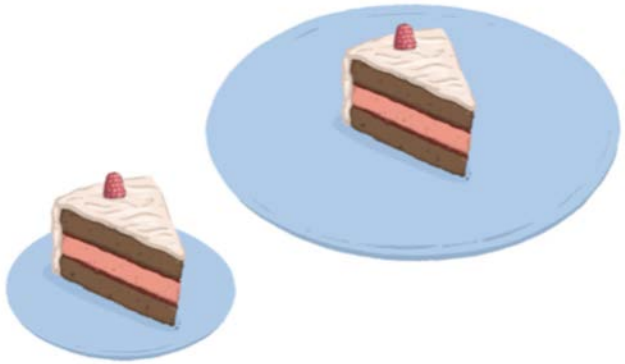
Strengthen your message by choosing the right frame!

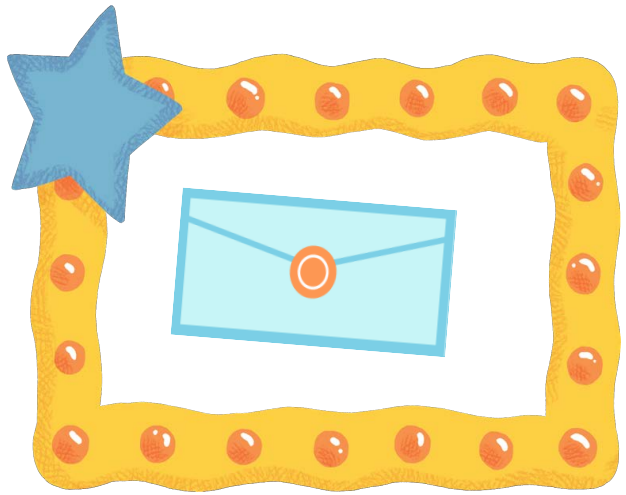
1. Emphasize immediate benefits
2. Leverage social cues
3. Prompt when most receptive
4. Carefully consider tradeoffs



Three important concepts

Change the environment to change behavior



Help your users by making it easy

Strengthen your message with the right frame