
Triggers for Free Will

January 20, 2014

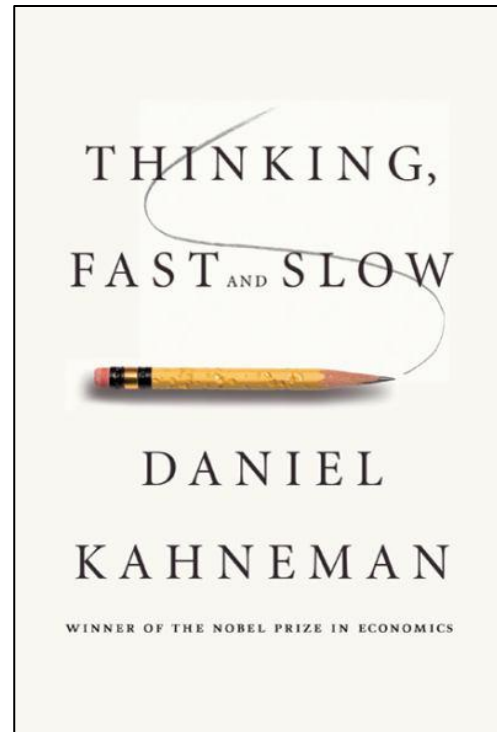
Jason Riis

Visiting Assistant Professor of Marketing

Wharton

University of Pennsylvania

Thinking Fast and Slow



Fast Brain and Slow Brain

Fast (automatic) system

➔ *MOST DECISIONS*

Slow (reflective) system

➔ *FREE WILL*



What is Free Will?

Free Will ...

= Slow System

= Self Control

= Long term thinking

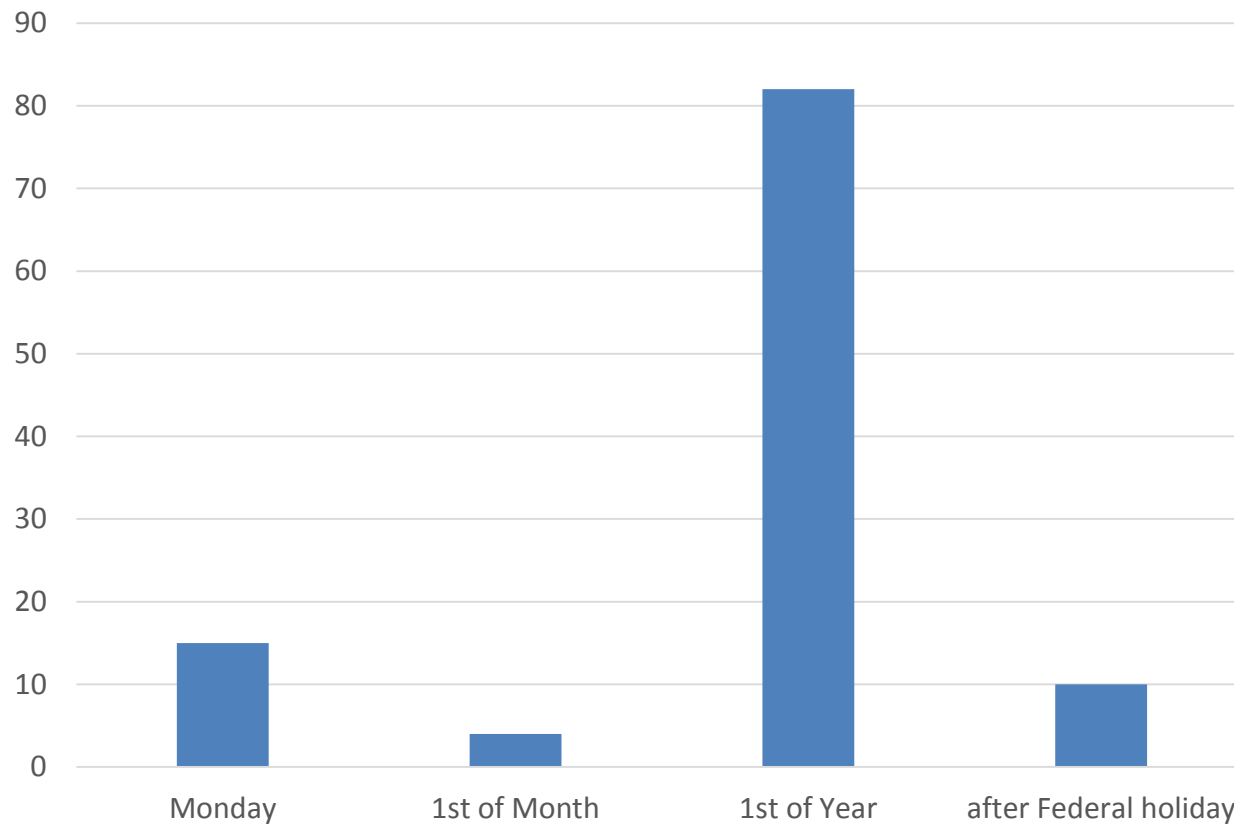


This system can
be triggered!

Free Will Comes and Goes

- “The Fresh Start Effect: Temporal Landmarks Motivate Aspirational Behavior”
 - Forthcoming, Management Science
 - With Hengchen Dai and Katy Milkman

Free Will Comes and Goes: *Google searches on “Diet”*



Free Will Comes and Goes: Stickk.com

stickk

The smartest way to set and achieve your goals

Home

How it works

About stickK

Contact Us

FAQ

Login

I commit to

featured | create your own

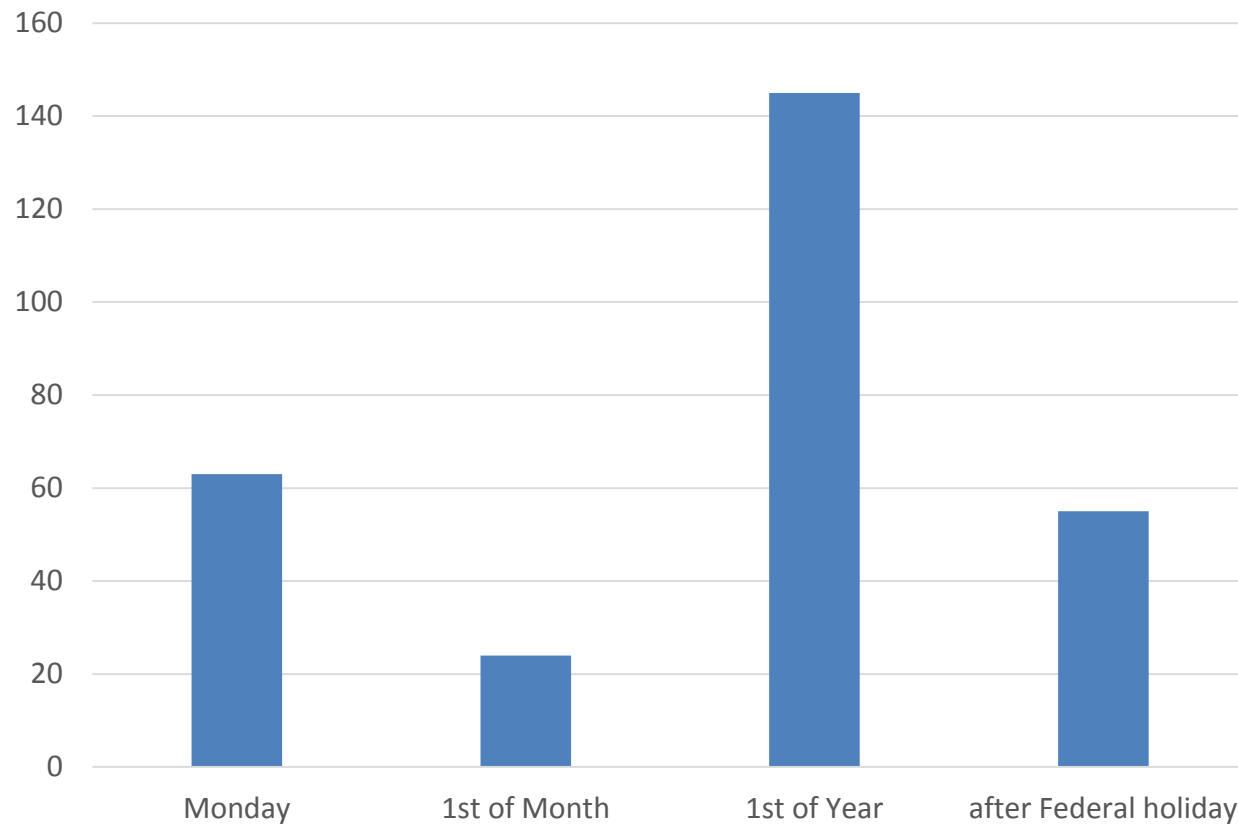
(Select your Goal)

start
Now!

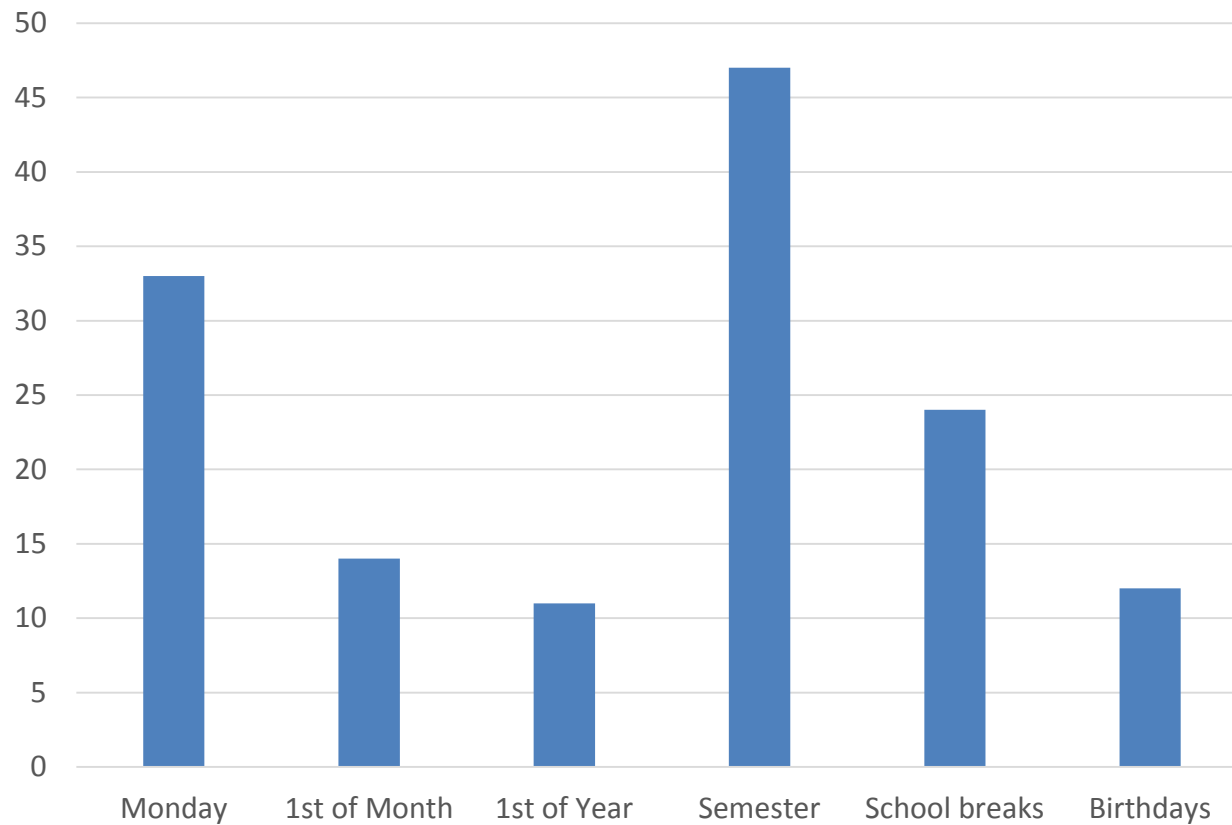
Be on time, study hard, lose weight, no more debt,
more time with family, better sleep schedule, eat better,
go back to the gym, help others, go jogging,
learn something new...



Free Will Comes and Goes: Stickk.com



Free Will Comes and Goes: *Gym Attendance on Campus*



How can free will be triggered?

Traditional tools

- Price (taxes / subsidies)
- Information (raw)



Triggers self control

“Strong Nudge”

... Directive ... but not too directive

- 1) Invitation to downsize
- 2) Traffic light labels
- 3) Feedback
- 4) Incentives
- 5) Temptation bundling



“Weak Nudge”

- Change default
- Change salience



By-passes self control

How can we trigger free will?

5 Triggers:

- 1) Invitation to downsize
- 2) Traffic light labels
- 3) Feedback
- 4) Incentives
- 5) Temptation bundling

Triggers self control



When will they work best:

- When language is not too strong
- When consumers do want to eat better
- When choice is preserved (so people can still eat stuff they love)

Trigger 1: Invitation to Downsize

FEBRUARY 2012 31:2 HEALTH AFFAIRS

By Janet Schwartz, Jason Riis, Brian Elbel, and Dan Ariely

Inviting Consumers To Downsize Fast-Food Portions Significantly Reduces Calorie Consumption

Pilot study: Attitudes to portions

How big are the portions at the restaurants you typically visit? (N=142)		
<i>Usually too small</i> 4%	<i>Usually about right</i> 59%	<i>Usually too large</i> 37%

Pilot study: Attitudes to portions

At the restaurants you go to, how often do you specifically request a smaller portion than is offered on the menu? (N=81)

<i>Almost never</i> 89%	<i>Often</i> 10%	<i>Most of the time</i> 1%
-----------------------------------	----------------------------	--------------------------------------

Pilot study: Attitudes to portions

If the restaurants you go to started offering optional “downsized” portions at a very small discount, how often would you accept? (N=61)

<i>Almost never</i> 38%	<i>Often</i> 51%	<i>Most of the time</i> 11%
-----------------------------------	----------------------------	---------------------------------------

Field Experiment at Panda Express: Questions

- Do customers spontaneously request smaller portions?
- Do customers accept strong nudges to take smaller portions for no discount or for a nominal discount? (Can free will be triggered?)

Ordering a meal at Panda Express

Step 1

Order meal size



Step 2

Order side dish



Step 3

Order entrée(s)



Step 4

Pay

Fried rice	Steamed rice
Chow mein	Mixed veggies

Orange chicken	Beijing beef	BBQ pork	...
Mushrm chicken	Broccoli beef	Country tofu	...



How the nudge worked

Step 1

Order meal size



Step 2

Order side dish



Step 3

Order entrée(s)

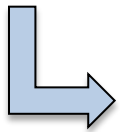


Step 4

Pay

Fried rice	Steamed rice
Chow mein	Mixed veggies

Orange chicken	Beijing beef	BBQ pork	...
Mushrm chicken	Broccoli beef	Country tofu	...



“Would you like to cut more than 200 calories from your meal by taking a half portion of your side dish?”

Study 1 Design

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	BASELINE	BASELINE	<u>NUDGE</u> <i>no discount</i>	<u>NUDGE</u> <i>no discount</i>		
	BASELINE	BASELINE				

Study 1 Design

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	BASELINE	BASELINE	<u>NUDGE</u> <i>no discount</i>	<u>NUDGE</u> <i>no discount</i>		
	BASELINE	BASELINE	<u>NUDGE</u> <i>25¢ discount</i>	<u>NUDGE</u> <i>25¢ discount</i>		

“Would you like to cut more than 200 calories from your meal (and save 25¢) by taking a half portion of your side dish?”

Proportion taking half sized side dish portion

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	BASELINE 1%	BASELINE	<u>NUDGE</u> <i>no discount</i> 35%	<u>NUDGE</u> <i>no discount</i>		
	BASELINE 4%	BASELINE	<u>NUDGE</u> <i>25¢ discount</i> 32%	<u>NUDGE</u> <i>25¢ discount</i>		

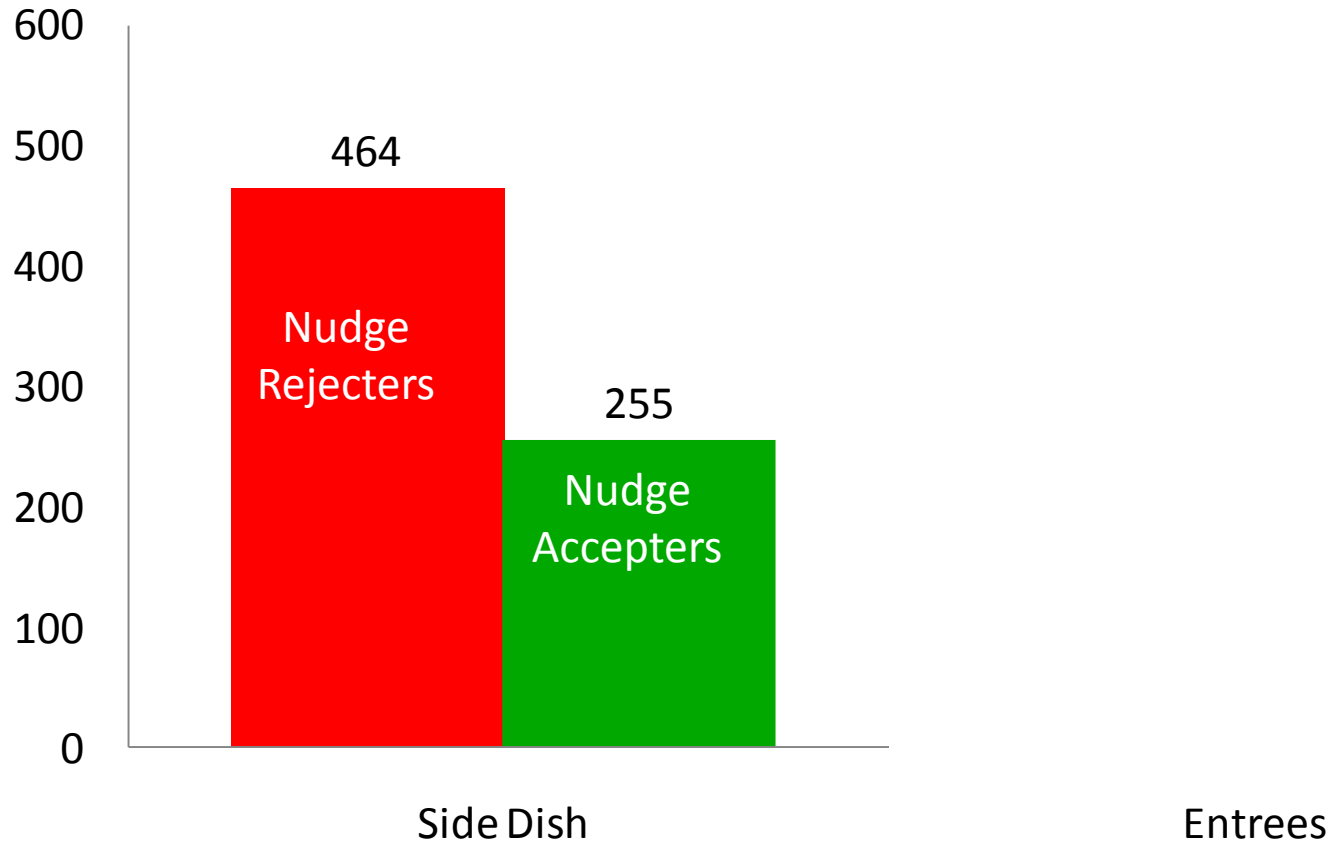
Proportion taking half sized side dish portion

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			<u>NUDGE</u> <i>no discount</i>	<u>NUDGE</u> <i>no discount</i>		
			<u>NUDGE</u> 25¢ <i>discount</i>	<u>NUDGE</u> 25¢ <i>discount</i>		

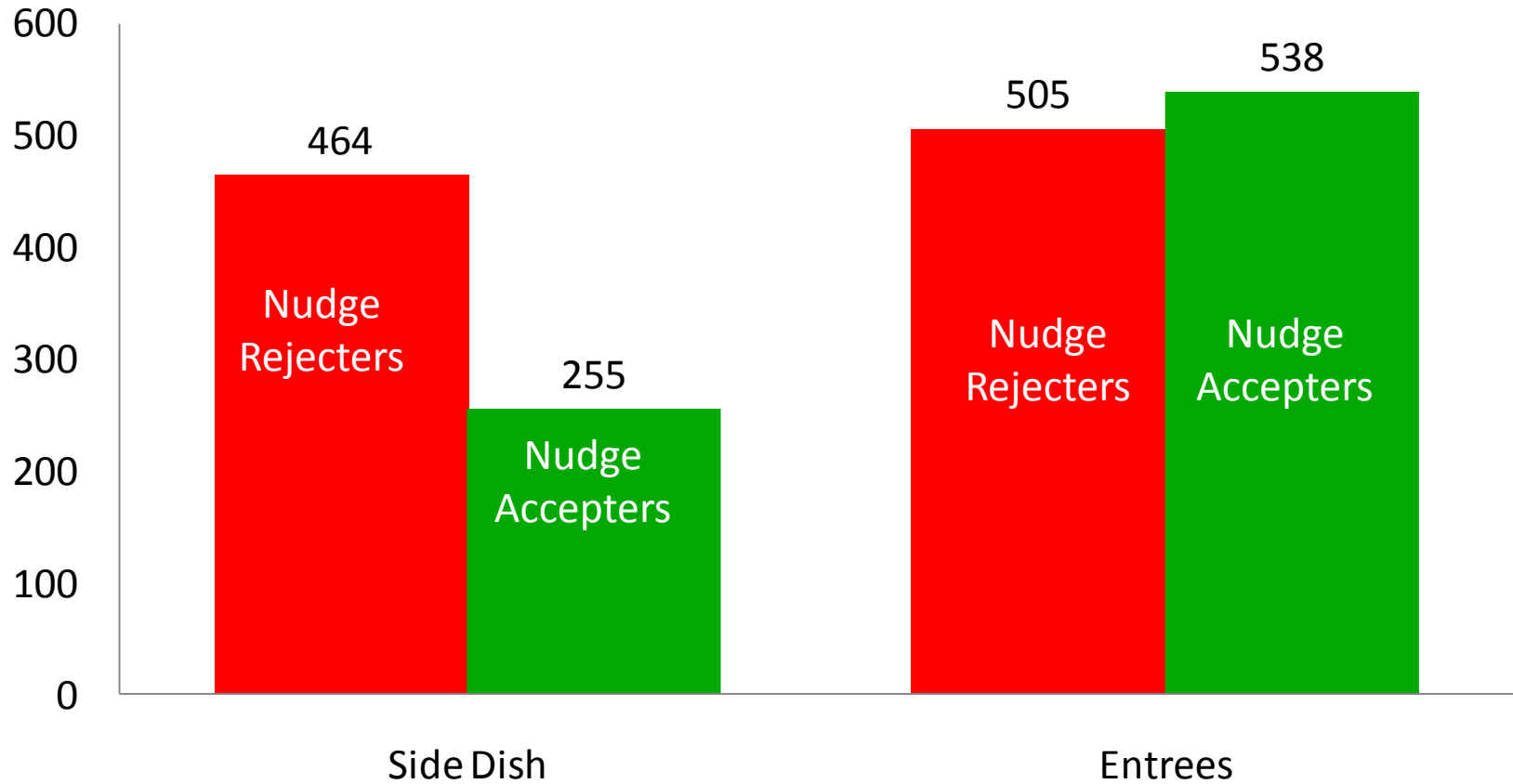
35%

32%

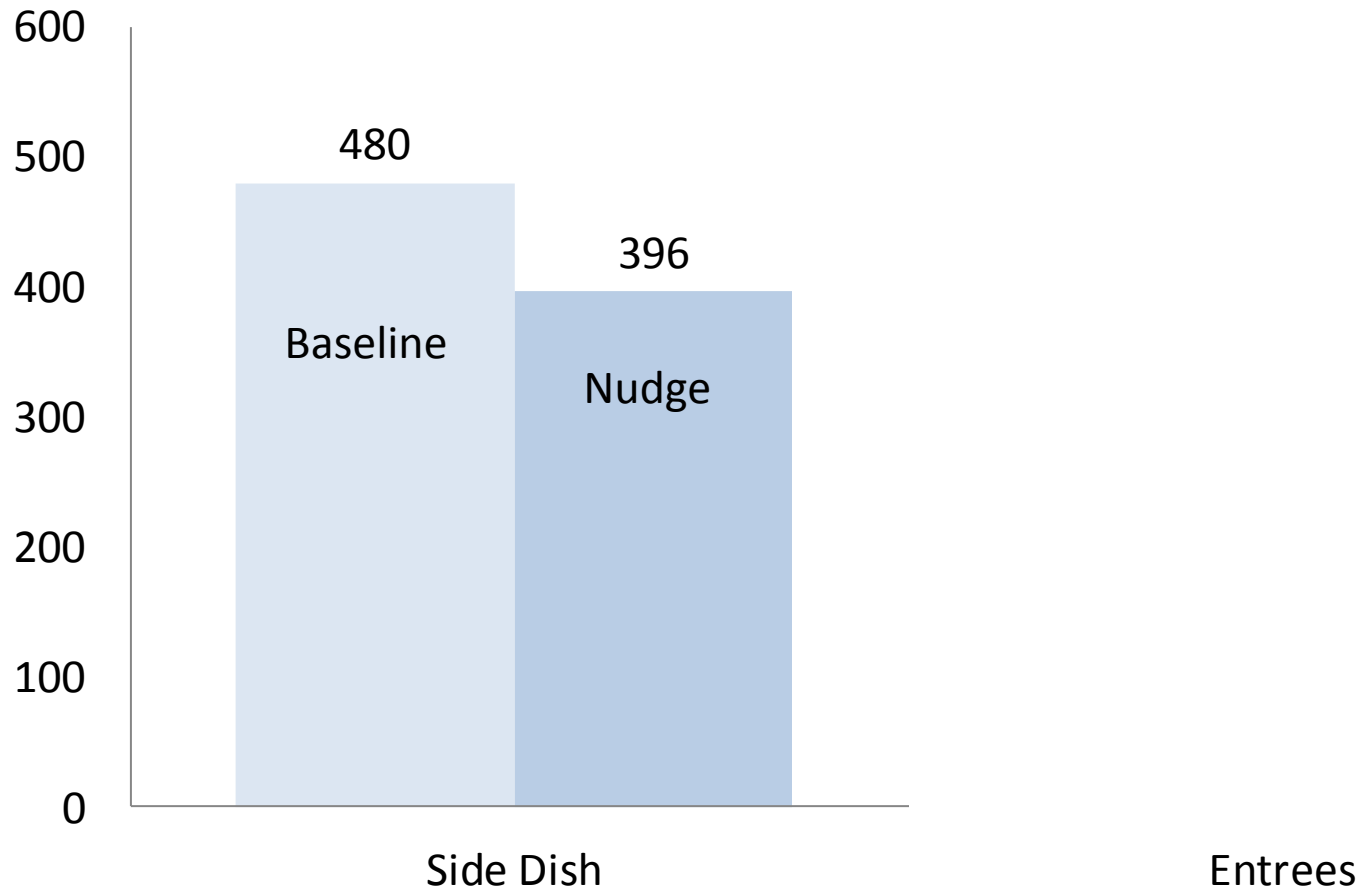
Calories per customer (Nudge condition only), n=164



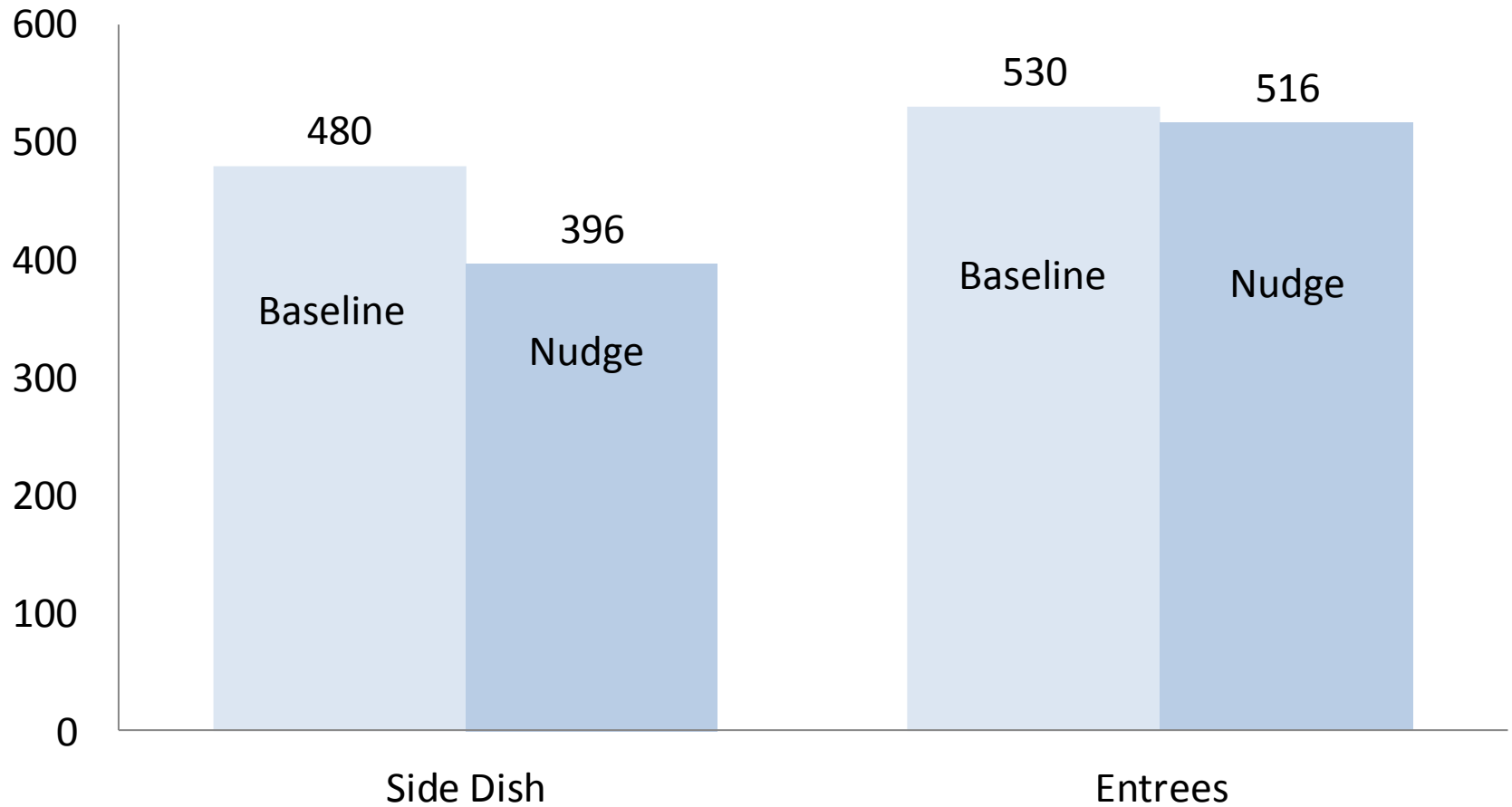
Calories per customer (Nudge condition only), n=164



Calories per customer, N=283



Calories per customer, N=283



How can free will be triggered?

“Strong Nudge”

... Directive ... but not too directive

- 1) Invitation to downsize
- 2) Traffic light labels
- 3) Feedback
- 4) Incentives
- 5) Temptation bundling

Triggers self control



Trigger 2: Traffic Light Labels

Triggers self control

“Strong Nudge”

... Directive ... but not too directive

- 1) Invitation to downsize
- 2) **Traffic light labels**
- 3) Feedback
- 4) Incentives
- 5) Temptation bundling



“Consume often”



“Consume less often”



“There’s a better choice
in green or yellow”

Co-authors from MGH:

- Anne Thorndike
- Lillian Sonnenberg
- Susan Barraclough
- Doug Levy

AJPH - March, 2012

A 2-Phase Labeling and choice architecture intervention to improve healthy food and beverage choice

AJPM - September, 2012

Food choices of minority and low-income employees: A cafeteria intervention

AJPM - February, 2014

Traffic-light labels and choice architecture: Long-term effectiveness in promoting healthy food choices

Setting: Main cafeteria, Massachusetts General Hospital (MGH)

- 6,000 visitors / day
- \$30,000 revenue / day

- 2 years of cash register data.

Trigger 2: Traffic Light Labels



- Labeling based on USDA food pyramid guidelines



“Consume often”



“Consume less often”



“There’s a better choice in green or yellow”

How the trigger works:

- Regular reminders you are choosing the unhealthy (red) item
- ... “Why am I doing this?”

Study Design and Timeline

PHASE 0:
BASELINE

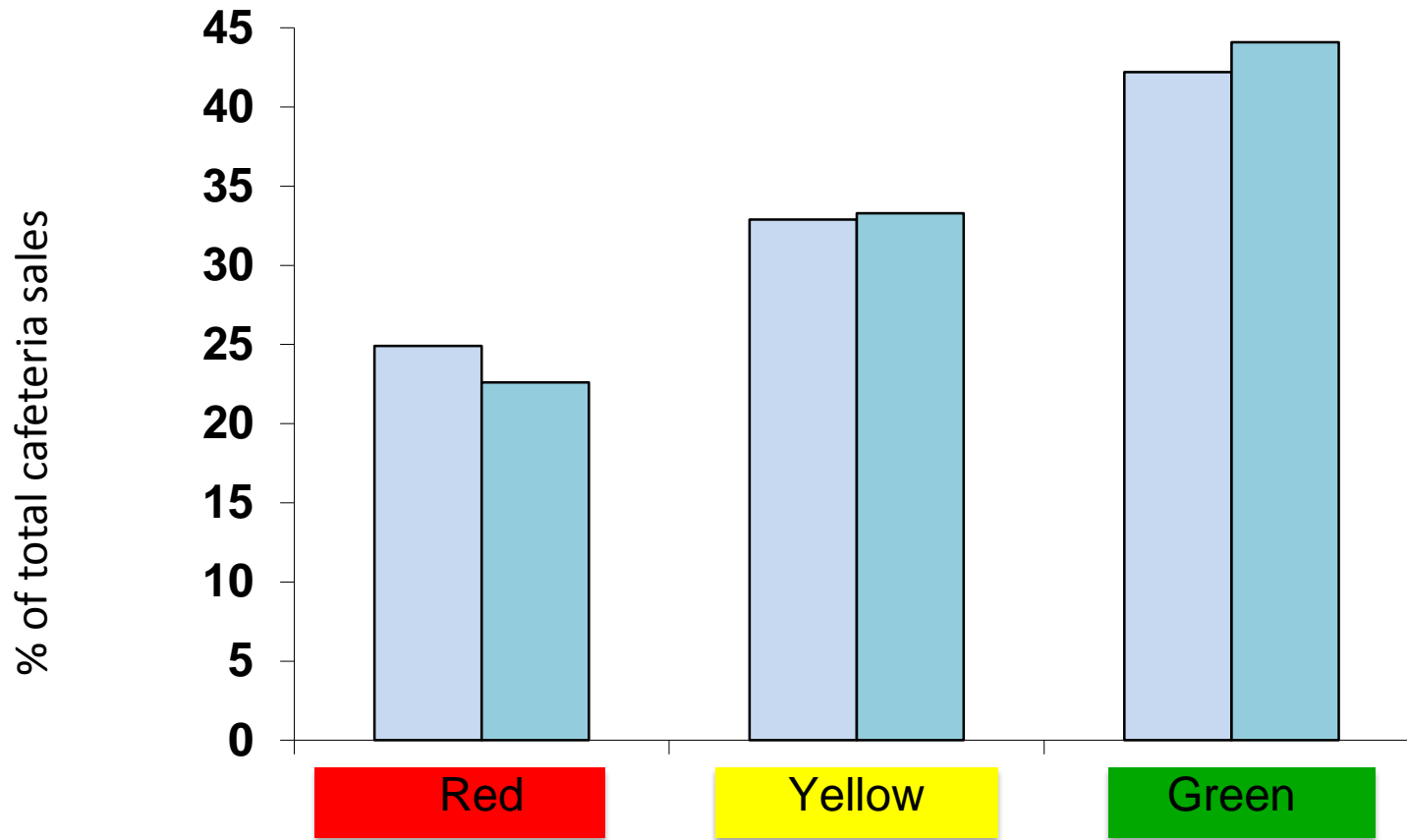
PHASE 1:
LABELS



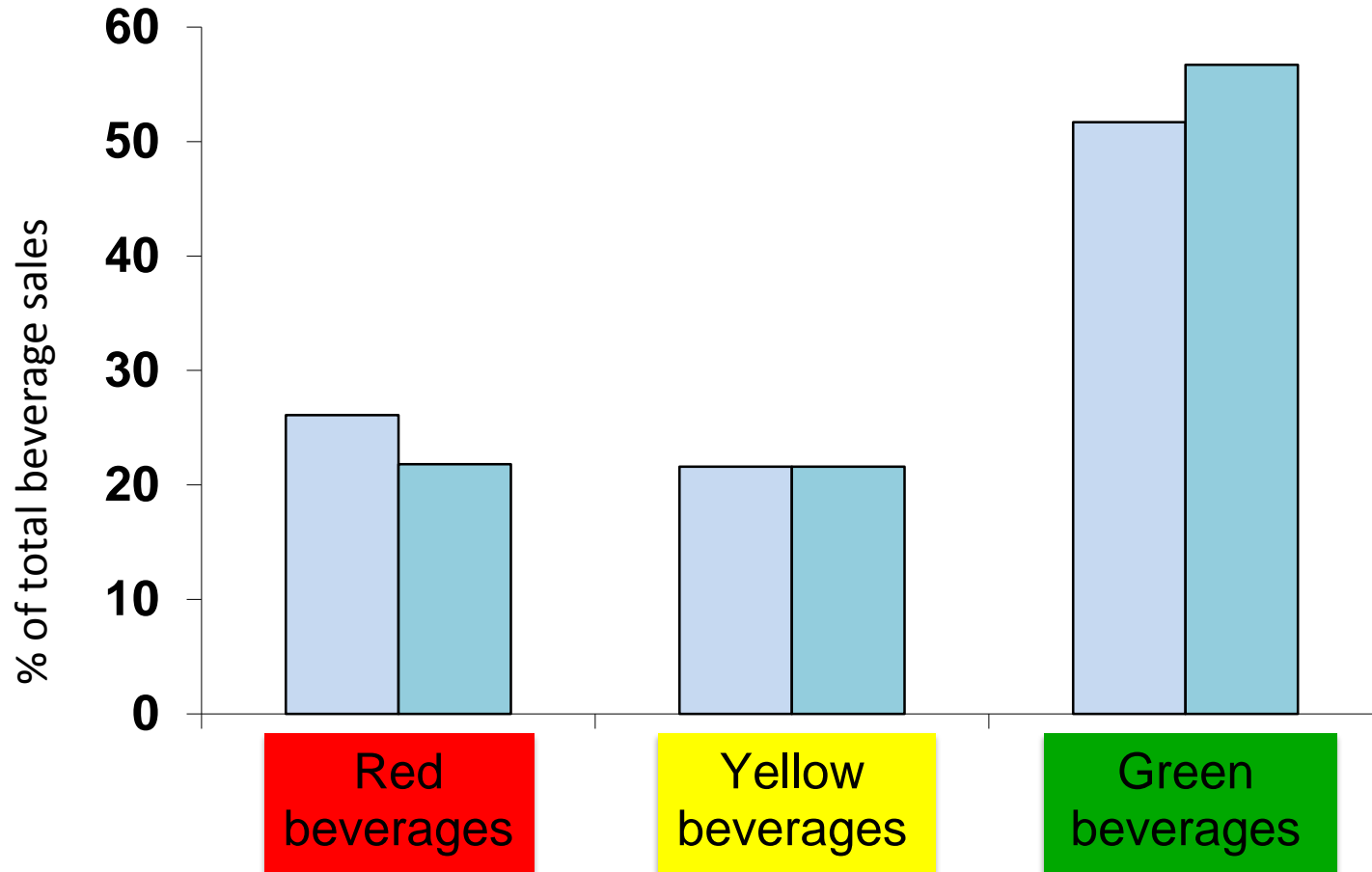
December 1,
2009

March 1,
2010

Sales of all cafeteria items



Sales of cold beverages



How can free will be triggered?

“Strong Nudge”

... Directive ... but not too directive

- 1) Invitation to downsize
- 2) Traffic light labels
- 3) Feedback
- 4) Incentives
- 5) Temptation bundling

Triggers self control



Triggers 3 & 4: Feedback and Incentives

Triggers self control

“Strong Nudge”

... Directive ... but not too directive

- 1) Invitation to downsize
- 2) Traffic light labels
- 3) Feedback
- 4) Incentives
- 5) Temptation bundling

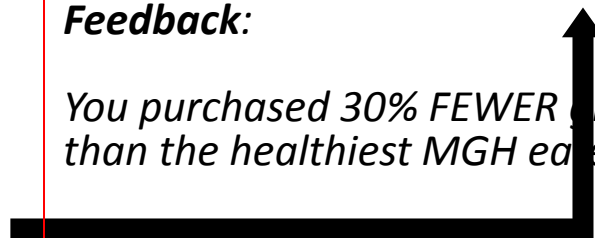
Feedback:

You purchased 30% FEWER green items than the healthiest MGH eaters

Incentive:

To earn your \$10 reward, meet your GREEN GOAL for next month.

GREEN GOAL: Make 60% or more of your cafeteria purchases green items during the month of December



Using feedback and incentives to promote healthy food choices in a workplace cafeteria



2672 employees
randomized

870 CONTROL

No contact

3 MONTHS

877 FEEDBACK only

Monthly letters with
green purchase data

3 MONTHS

925 FEEDBACK + INCENTIVES

Monthly letters with
green purchase data
+ incentive

3 MONTHS

3 month wash-out period (no contact)

2672 employees
randomized

870 CONTROL

- No letters

877 FEEDBACK only

- Monthly letter: *(Oct 1, Nov 1, Dec 1)*
- Feedback (absolute):
% green you bought last month
- Feedback (peer comparison):
You vs. "All" and "Healthiest"

925 FEEDBACK + INCENTIVES

- Monthly letter: *(Oct 1, Nov 1, Dec 1)*
- Feedback (absolute):
% green you bought last month
- Feedback (peer comparison):
You vs. "All" and "Healthiest"
- Incentive
 - \$10 for reaching 40%, 60%, 80% green
 - \$5 for maintaining 40%, 60%, 80% green
 - applied toward cafeteria purchases

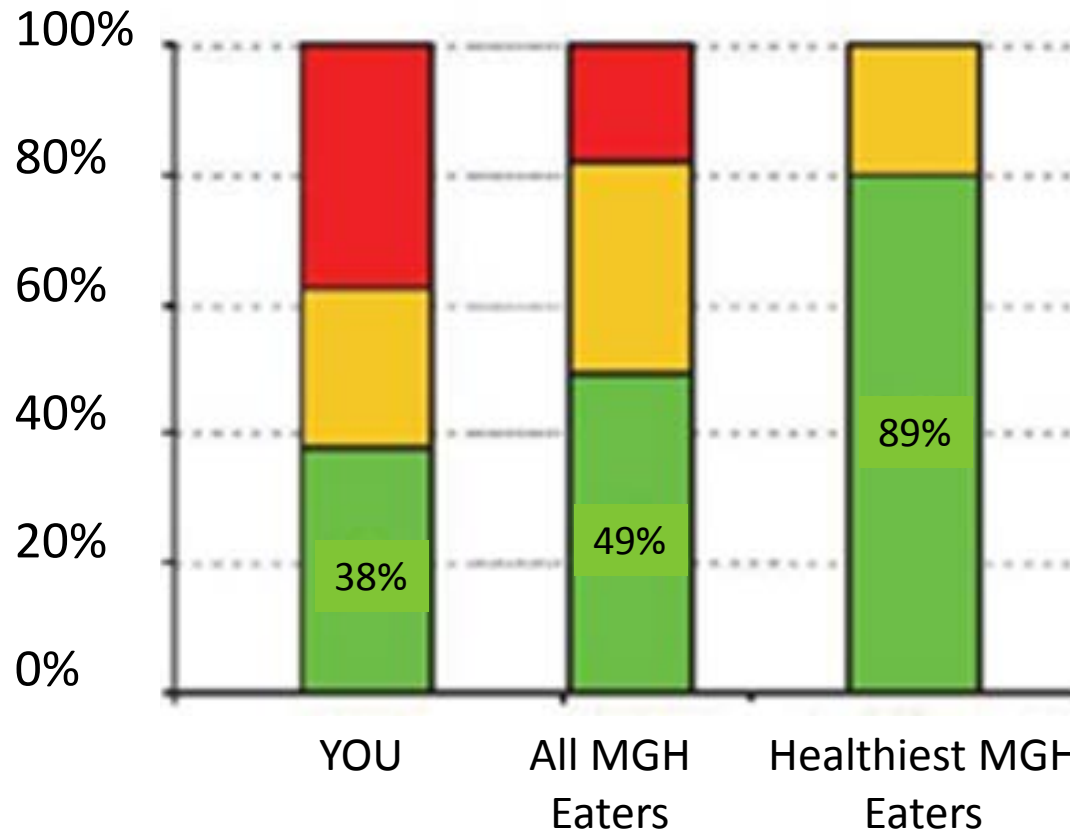
3 month wash-out period (no contact)

877 FEEDBACK only

925 FEEDBACK + INCENTIVES

To earn your \$10, simply reach your **GREEN GOAL** next month:

Make 60% or more of your purchases green



How can we trigger free will?

“Strong Nudge”

... Directive ... but not too directive

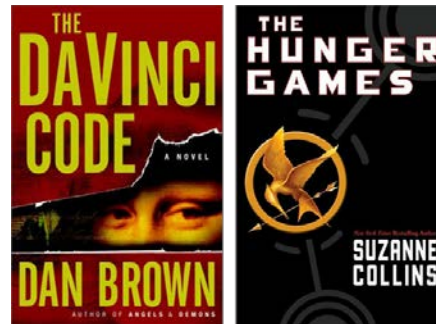
- 1) Invitation to downsize
- 2) Traffic light labels
- 3) Feedback
- 4) Incentives
- 5) Temptation bundling

Triggers self control



Trigger 5: Temptation Bundling

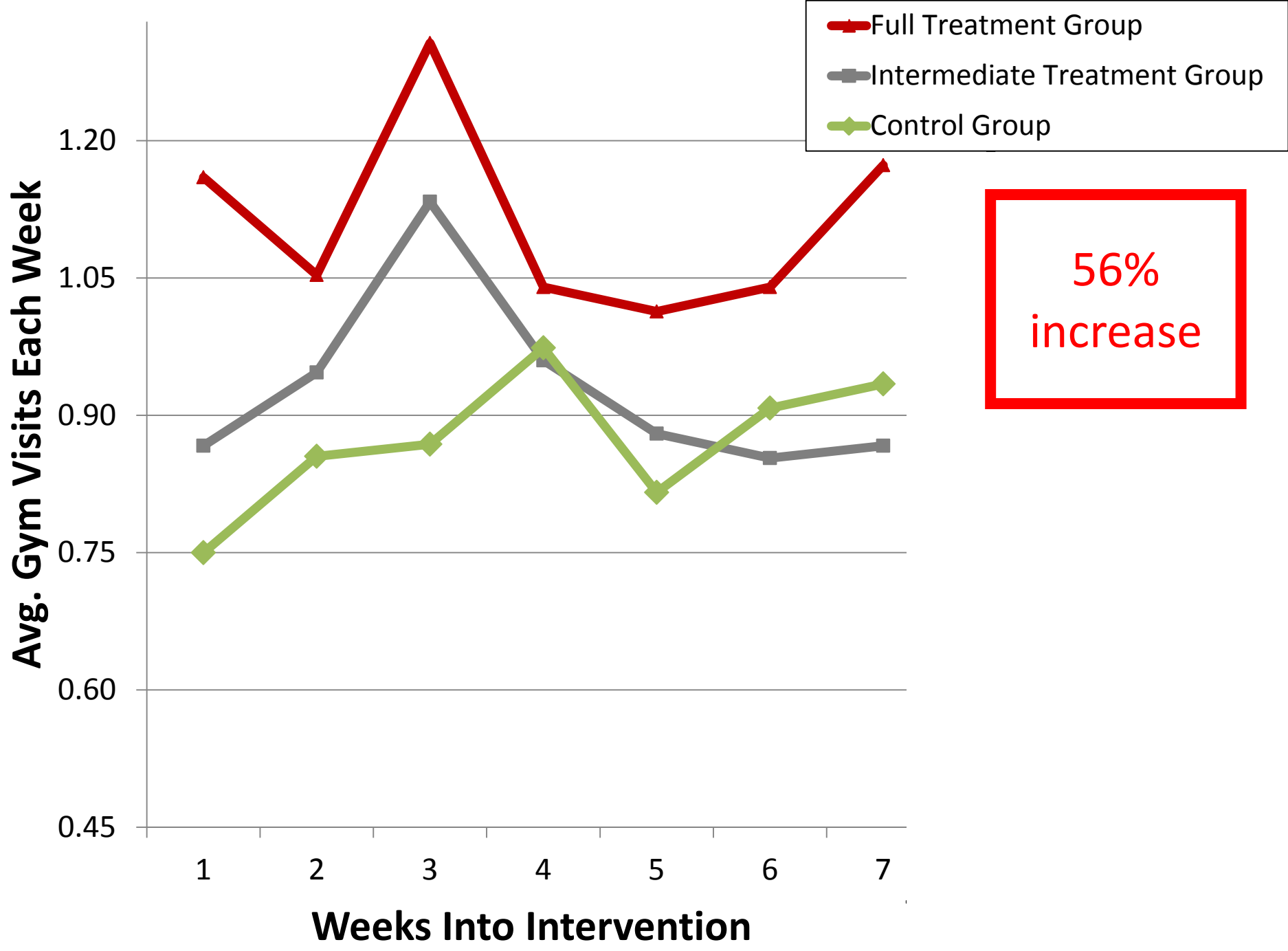
- “Holding the Hunger Games Hostage at the Gym: An Evaluation of Temptation Bundling”
 - Forthcoming, Management Science
 - Katy Milkman, Julia Minson, Kevin Volpp



Experimental Conditions

- **Full Treatment (N = 75):**
 - Receive 4 tempting audio novels on **loaned** iPod
 - Intake visit with 30 min. workout (listening to novel)
 - **Only** listen to novels while exercising
- **Intermediate Treatment (N = 75):**
 - ...
 - **Try to** only listen to novels while exercising
- **Control (N = 76):**
 - Receive \$25 gift certificate to B&N
 - Intake visit with 30 min. workout





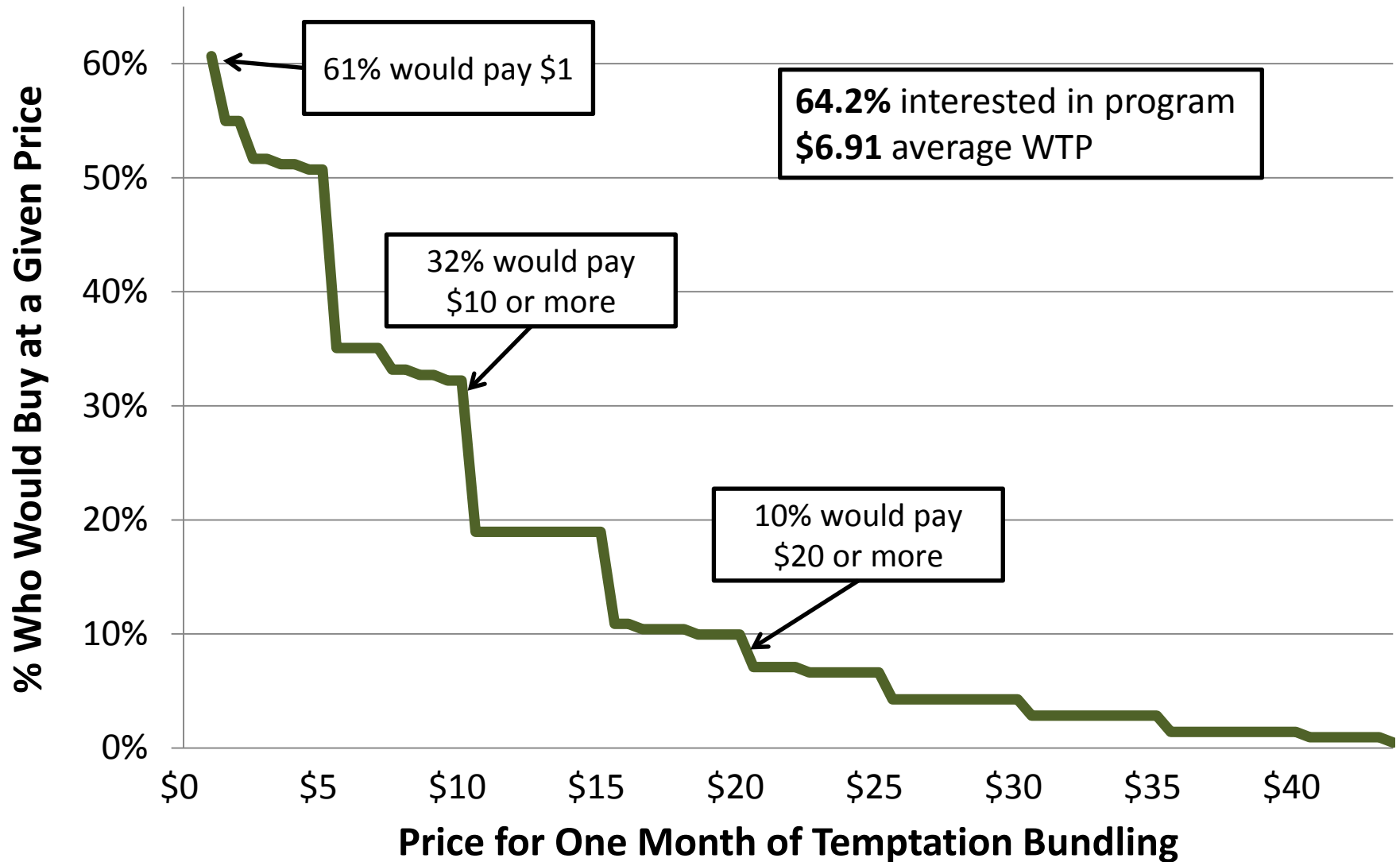
Will consumers pay for this trigger?

- After 10 week study, all participants:
 - Told they might win a new iPod shuffle pre-loaded with a tempting audio novel of their choice



- Asked WTP to have access to iPod restricted for ***one month*** so they could only use it at the gym?

Most will pay for temptation bundling



Conclusion: Free Will can be Triggered

5 Triggers:

- 1) Invitation to downsize
- 2) Traffic light labels
- 3) Feedback
- 4) Incentives
- 5) Temptation bundling

Triggers self control



When will they work best:

- When language is not too strong
- When consumers do want to eat better
- When choice is preserved (so people can still eat stuff they love)

- END -
