



World Vision

Behavior Change and the Science of Habit

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October 2016



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Many behavioral outcomes we care about

Early reading in
children

Mosquito net
usage

Modern
contraceptive use

Fasting practices

Wash behaviors

Male circumcision

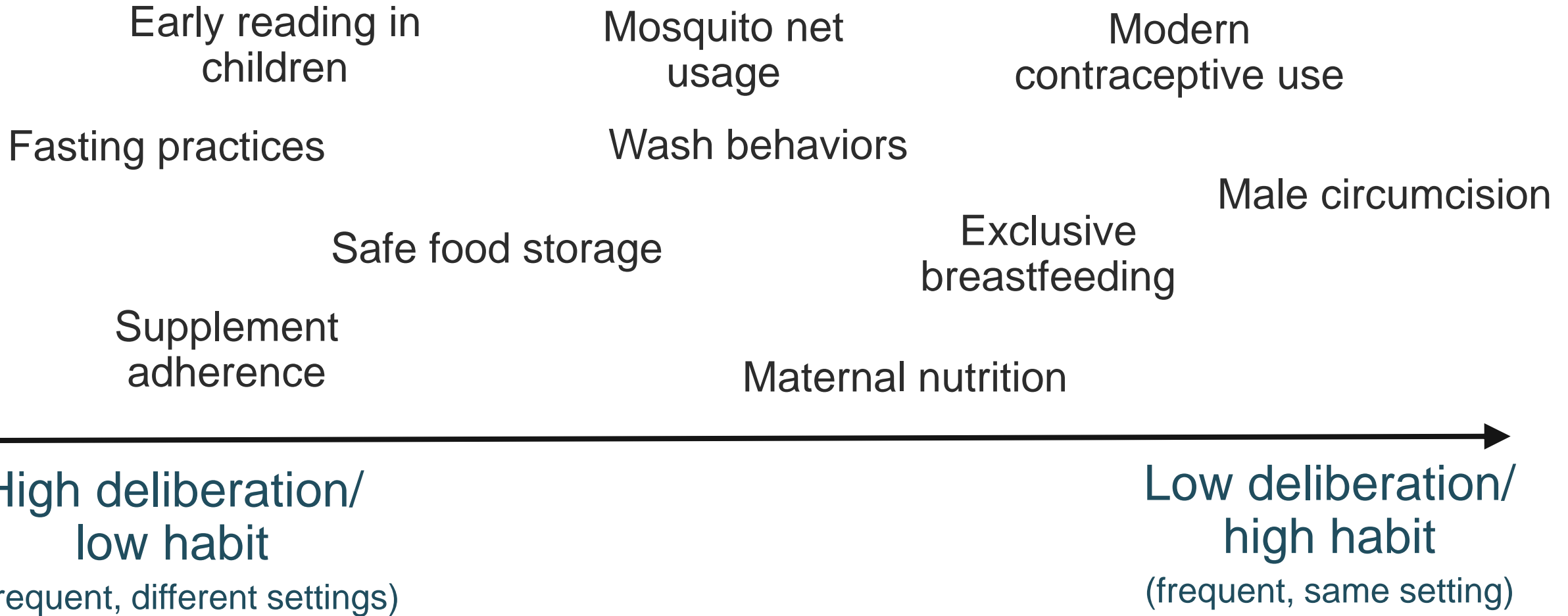
Safe food storage

Exclusive
breastfeeding

Supplement
adherence

Maternal nutrition

Many behavioral outcomes we care about



Why does it matter? New/infrequent behaviors \neq old/frequent behaviors

Behavioral

- Around 45% of daily life is “habitual” (Wood et al., 2002)

Cognitive

- From declarative to procedural memory (Poldrack et al., 2001)
- Action chunking (Graybiel, 2008)
- Outsourcing control to context/the environment (Neal et al., 2011)

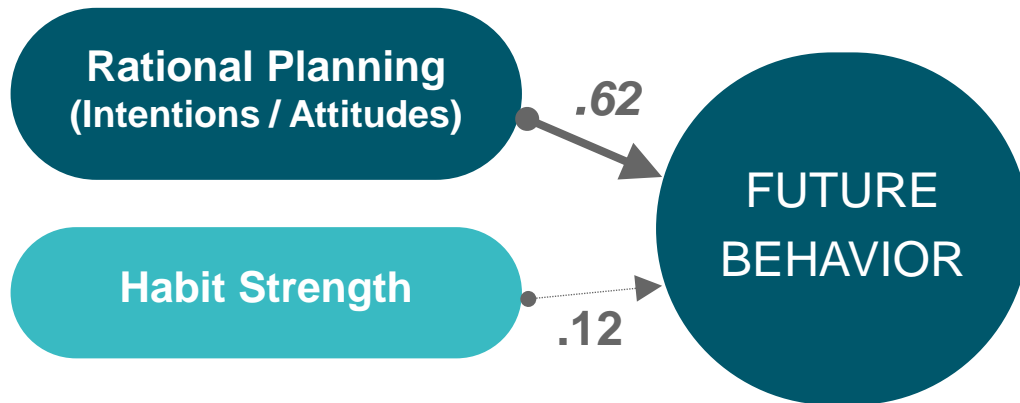
Neural

- Functional changes in the brain (Sakai et al., 2003)
- ...and even structural changes (Draganski et al., 2006; Maguire et al., 2000)

This really matters for behavior change....

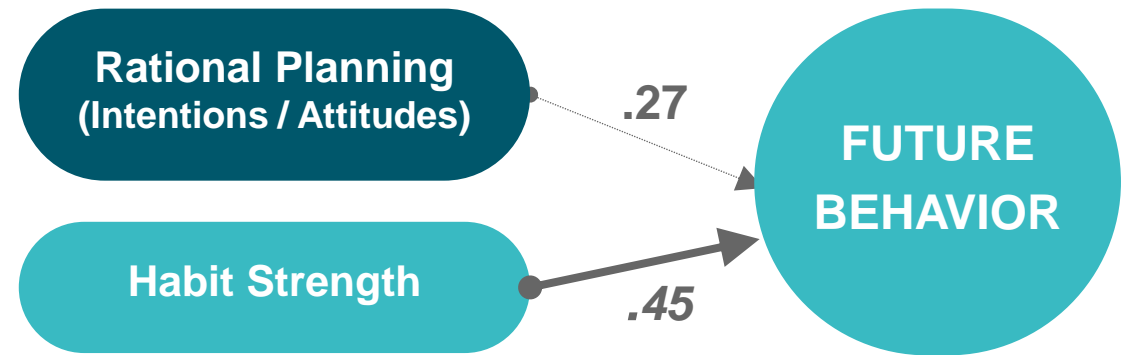
A. Behavior Prediction Meta-analyses¹

Things we do rarely



MANY HEALTH BEHAVIORS FIT HERE

Things we do often and in the same environment...



B. Do Intention-Based Interventions Change Behavior?²

✓ Large effect,
Cohen's $d = .77$

✗ Small effect,
Cohen's $d = .22$

What this looks like in the real world – for rich and poor alike

Fruit and Vegetable Consumption in the U.S.

Knowledge... (NCI, 2001)

- 8% knew they should eat 5/day in 1991
- 35% knew they should eat 5/day in 1995



Behavior... (Casagrande et al., 2007)

- 11% U.S. complied in 1988-1994
- 11% U.S. complied in 1995-2002

Handwashing in Bangladesh...

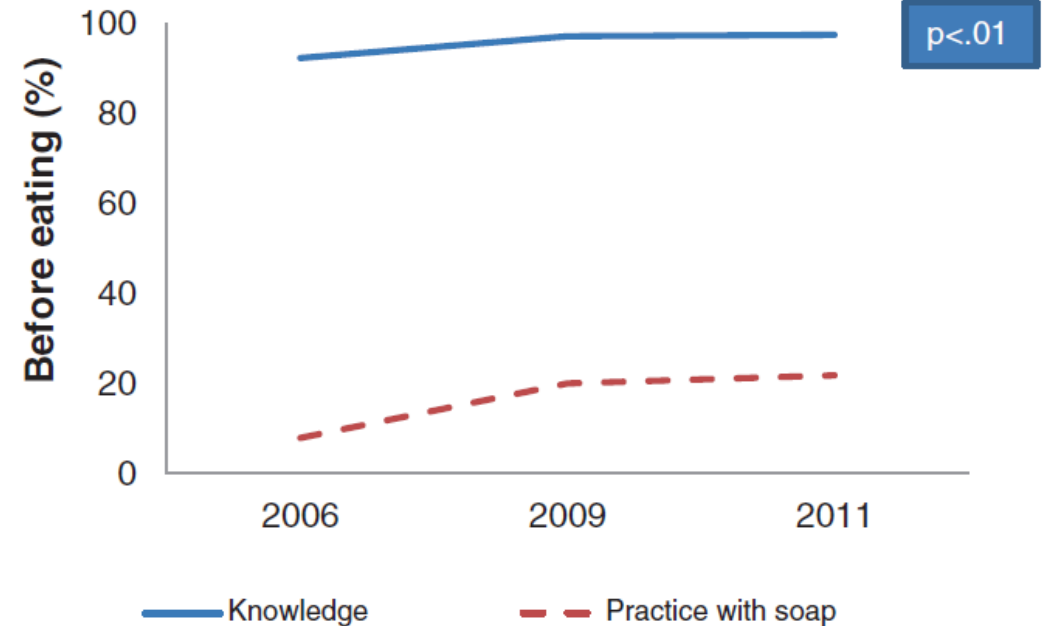
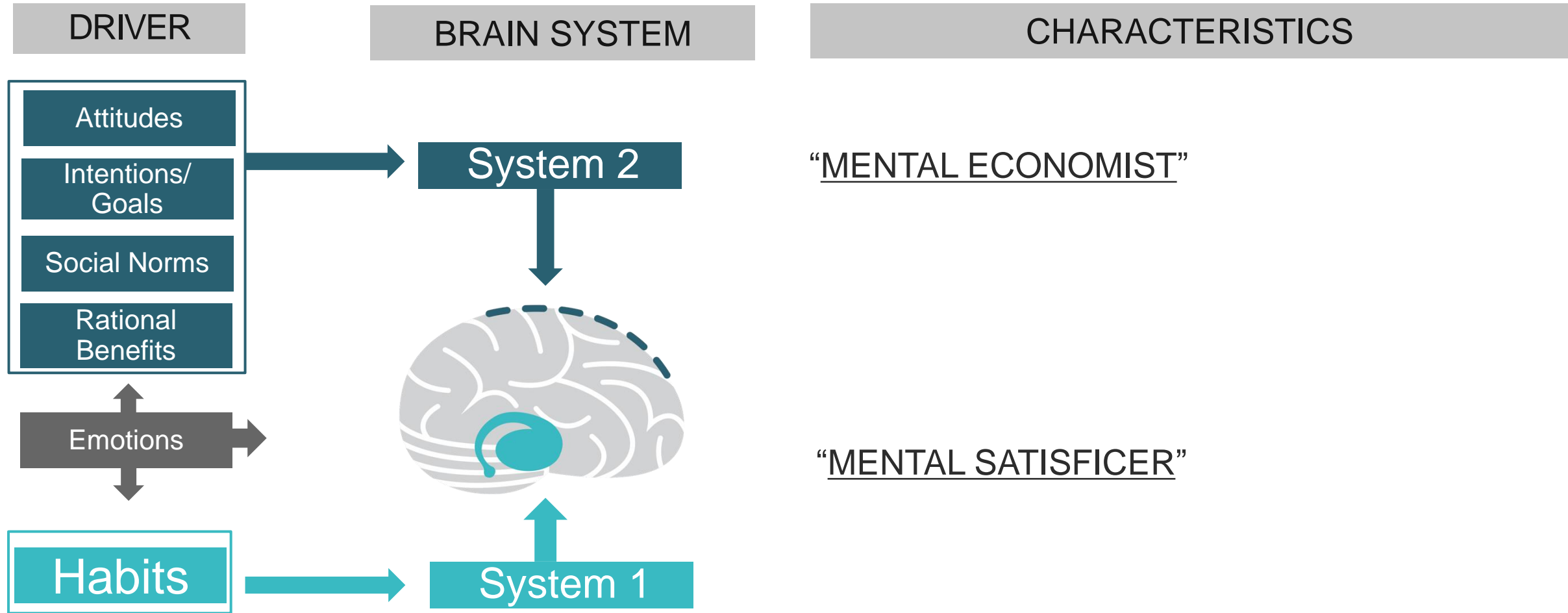


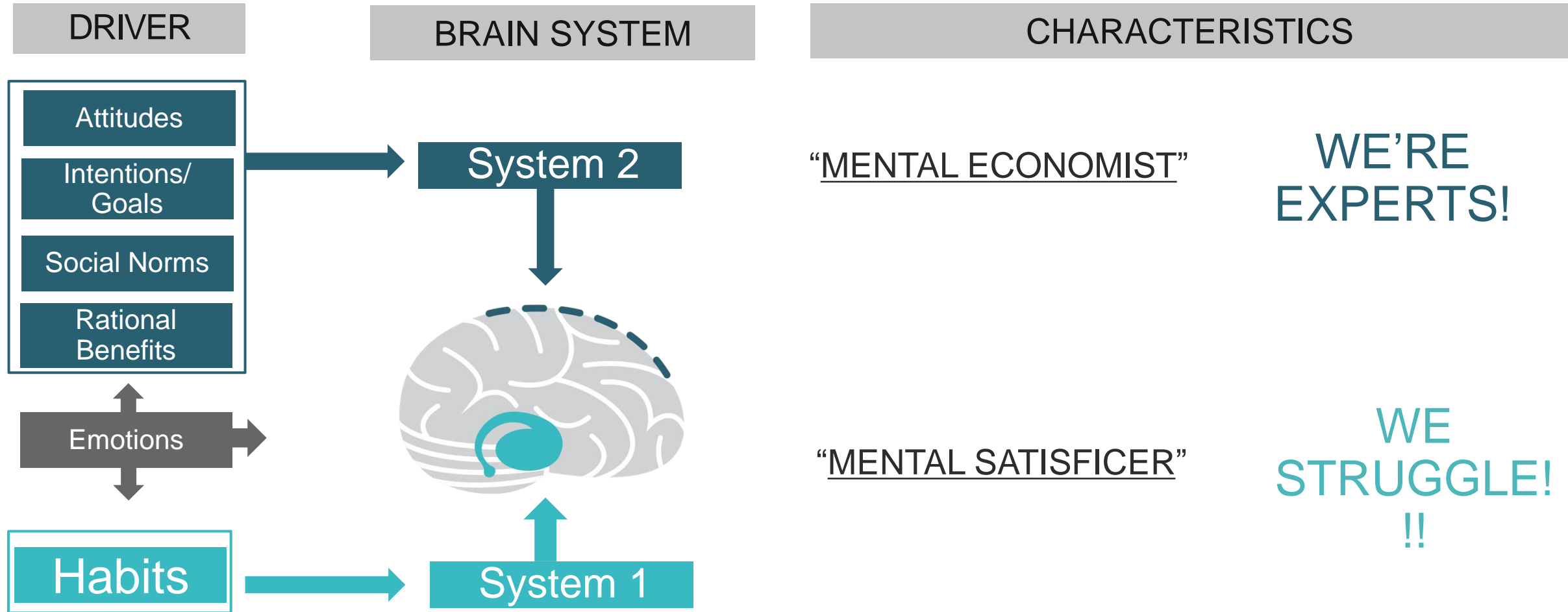
Figure 1 Knowledge and practice gap of hand washing before eating.

Rabbi & Dey (2013)

What can we do? A habit-friendly approach



What can we do? A habit-friendly approach



TRADITIONAL, “HABIT HOSTILE,” PERSPECTIVE

COMMUNICATIONS



<https://www.youtube.com/watch?v=NWm6PUGpfVU>

- Fear appeals + deep emotion
- Rational/informational

POINT OF PURCHASE



- Maintain existing cues but provide information & dramatic warnings

PRODUCT INNOVATION



- Provide “rational” switching option

NEWER, “HABIT FRIENDLY,” PERSPECTIVE

COMMUNICATIONS



https://www.youtube.com/watch?v=g_YZ_PtMkw0

- Create disruption through context change.
- Connect intention with action.
- Increase perceived control and fluency for change.

POINT OF PURCHASE



- Disrupt purchase cue ecosystem
- Disrupt packaging ecosystem by:
 - Eliminating cues where possible
 - Make cues socially unacceptable where removing impossible

PRODUCT INNOVATION



- Provide “rational” switching option embedded in form factor that piggybacks on existing behaviors.

IDEA 1: Leverage context change

Key Idea: Disruptions to the physical environment and/or familiar action sequences create a “window of opportunity” for a new behavior to form (Neal et al., 2011).



(Verplanken, Walker, Davis, & Jurasek, 2008).

Public Transport vouchers more effective when targeting recent movers

OD Interventions targeting workers during seasonal migration for work (away from habitual environment)

Mobarak et al. (in progress).



IDEA 2: Manage perceived and actual friction for new behavior / add to the old

Key Idea: When a new behavior requires even small amounts of effort, decision-making or added steps, relapse to old ways of acting will be much more likely (Murray & 2007).

Haubl,

Indoor smoking bans add friction to undesired behavior, reducing frequency. (Orbell & Verplanken, 2010).



Iron Fish in Vietnam



Pre-sorted medications increase regimen adherence

IDEA 3: Add ritualized elements into the change process

Key Idea: When behaviors become ritualized (i.e., linked with deep personal or culturally relevant meaning) they can (a) attract more attention/psychological engagement, (b) be seen as more credible, (c) emotionally bind people to each other around group-based values, and (d) be more likely to be socially transmitted (Lienard & Boyer, 2006; Rosano 2012).

Statues of the Madonna submerged in Bohol Philippines to prevent use of dynamite to fish.



Ritualized inking of the finger to signal voting.

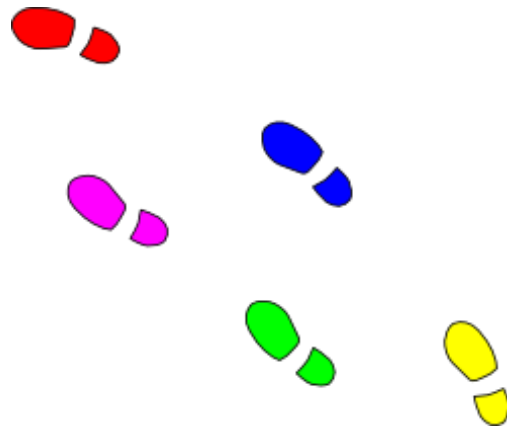
“No toilet, no bride” campaign in India



IDEA 4: Leverage reminders and situational cues

Key Idea: Following through on an intention requires a person to remember the new behavior, but it is easy to forget or neglect it. Reminders, especially in that appropriate context, can mitigate forgetting (Cole-Lewis, & Kershaw, 2010; Elder, Ayala, & Harris, 1999; Fry, & Neff, 2009).

In schools, use of painted footsteps from toilet to wash station to nudge students towards Handwashing (Dreibelbis, 2016).



Arabic script written on wall near common OD sites discourages OD (Bangladesh).



IDEA 5: Target “Small Doable Actions”

Key Idea: Focus narrowly on a single, changeable behavior that will yield a large improvement in outcomes for a large group of people.

Alive and Thrive Campaign



New Zealand Driving Safety



IDEA 6 A: Reducing abstractness and “temporal distance”: A. Social outcomes

Key Idea: By highlighting social consequences of negative health outcomes, people see them as more imminent and likely (Murdock & Rajagopal, 2016).




Adding social consequence caused by the long-term outcome make the outcome seem closer in time and more likely to occur



IDEA 6B: Reducing abstractness and “temporal distance”: B. Tangible icons

Key Idea: Providing tangible artefacts/icons to signal progress

- Savings intervention in Kibera
Akbas, Ariely, Robalino, & Weber (2016)

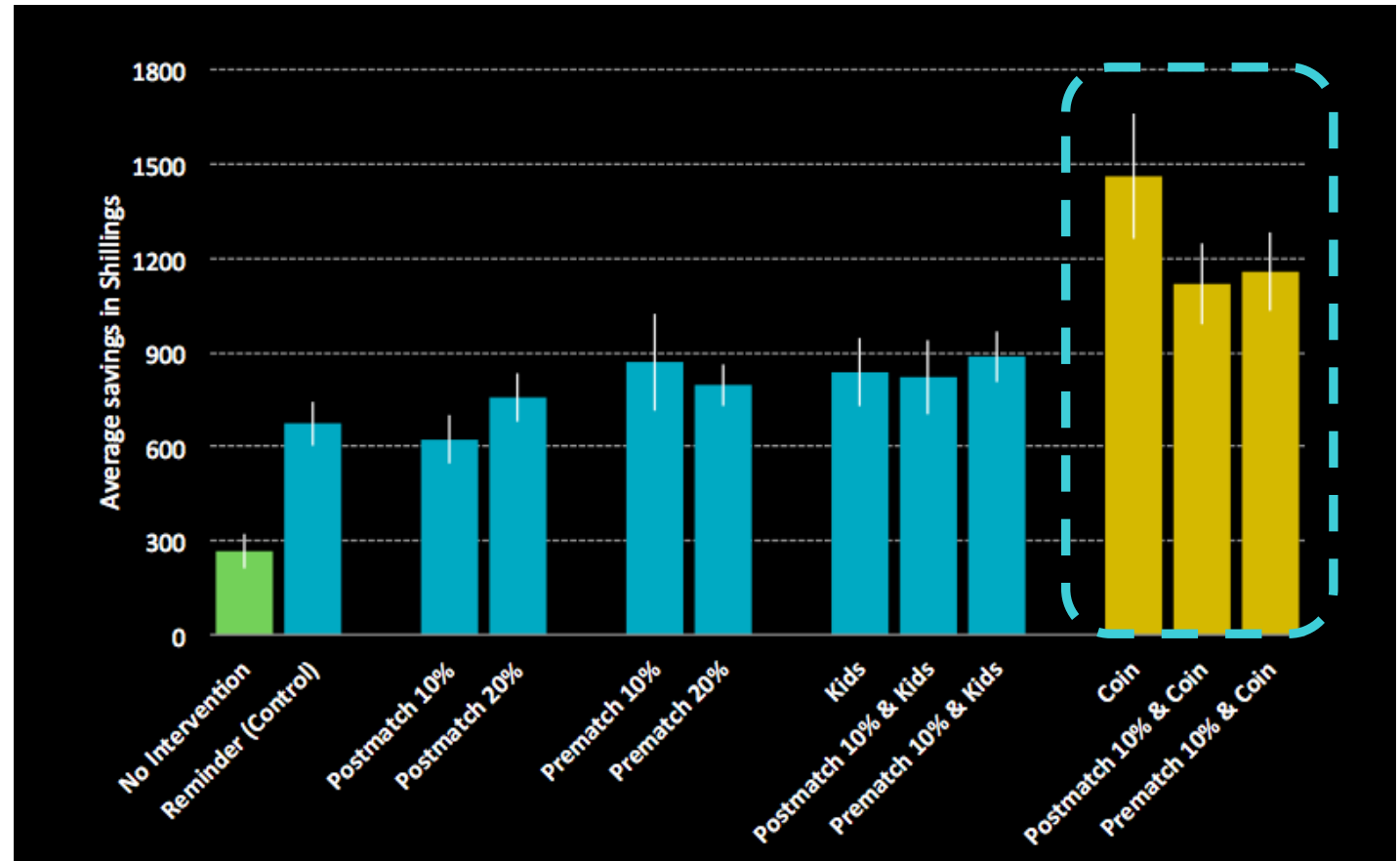
Non Financial Incentives	Financial Incentive
<p>Emotional Trigger</p> <p><i>Hi Daddy, please save as much as you can for our future.</i></p>	<p>Post Match</p> <p><i>Save at least 100 Shillings to receive 10 shillings extra 10% and 20%</i></p>
<p>Tangible Icon</p> 	<p>Pre Match (loss aversion)</p> <p><i>We just deposited 100 shillings into your account. Save at least 100 Shillings to keep it 10% and 20%</i></p>

IDEA 6B: Reducing abstractness and “temporal distance”: B. Tangible icons

Key Idea: Providing tangible artefacts/icons to signal progress

- Savings intervention in Kibera

Akbas, Ariely, Robalino, & Weber (2016)



Summary

IDEA 1: Leverage context change

IDEA 2: Manage perceived and actual friction for new behavior / add to the old

IDEA 3: Add ritualized elements into the change process

IDEA 4: Leverage reminders and situational cues

IDEA 5: Target “Small Doable Actions”

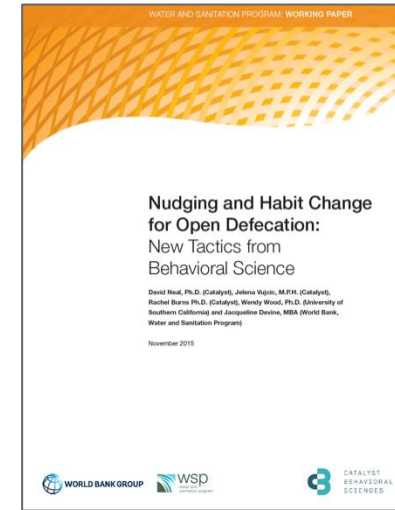
IDEA 6 A: Reducing abstractness and “temporal distance”: **A. Social outcomes**

IDEA 6B: Reducing abstractness and “temporal distance”: **B. Tangible icons**

Some additional resources...

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Thanks to...

