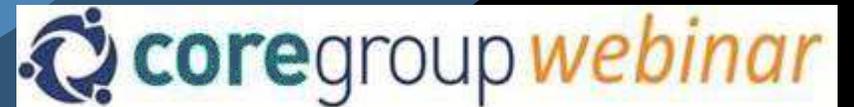


The SBC Journal Club presents
Maintaining Behavioral Changes

October 31, 2017

Antje Becker-Benton & Lenette Golding, Save the Children

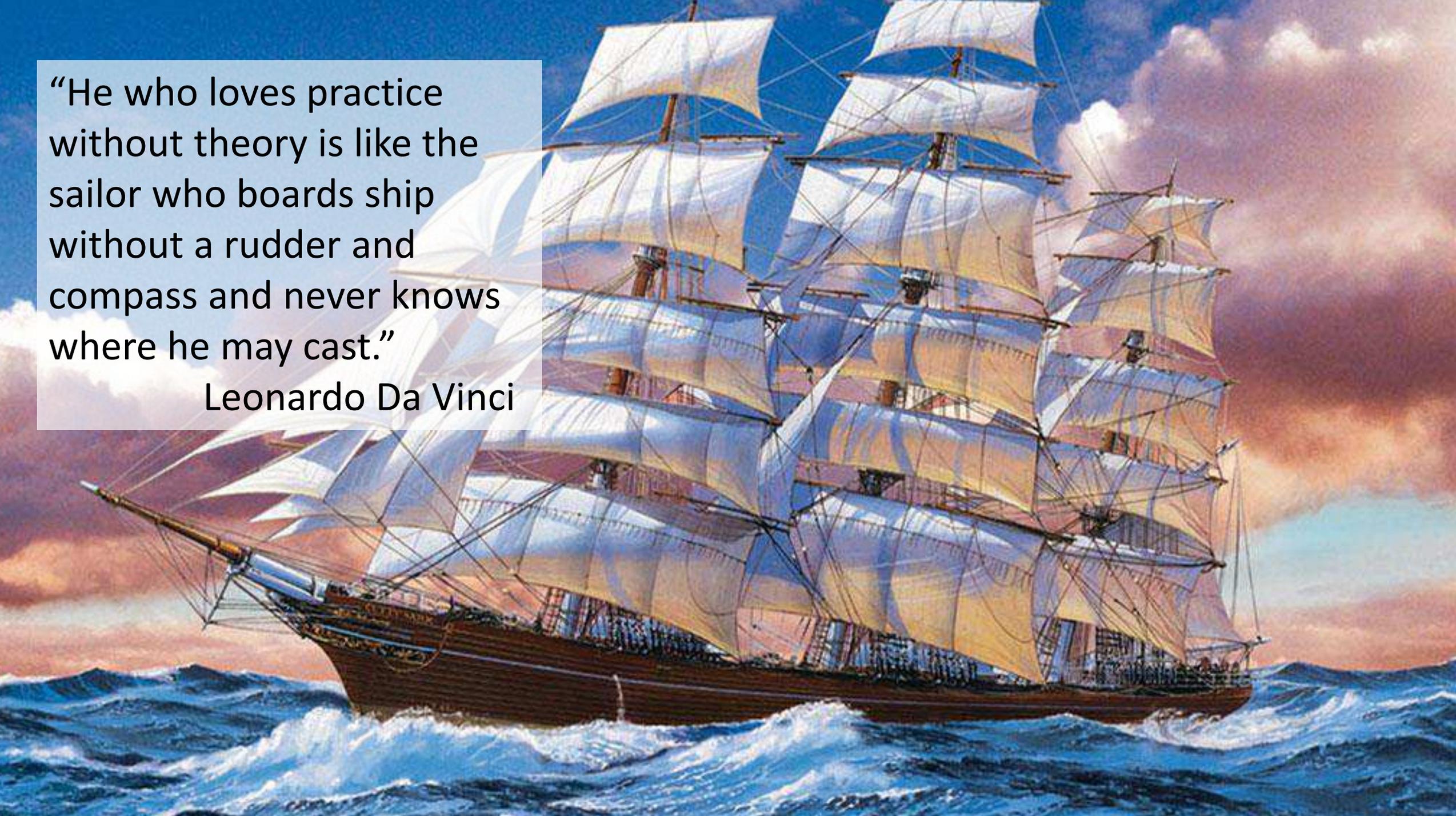


Agenda

1. Summary of the article
2. Main lessons and applications for global health
3. Antje and Lenette's opinion of the article
4. Group discussion

“He who loves practice without theory is like the sailor who boards ship without a rudder and compass and never knows where he may cast.”

Leonardo Da Vinci



“A set of concepts and/or statements with specification of how phenomena relate to each other. Theory provides an organizing description of a system that accounts for what is known, and explains and predicts phenomena.”

Mitchie et al., 2014



love
trumps
hate.

Can the explicit use of theory promote the design of effective behavior change interventions?

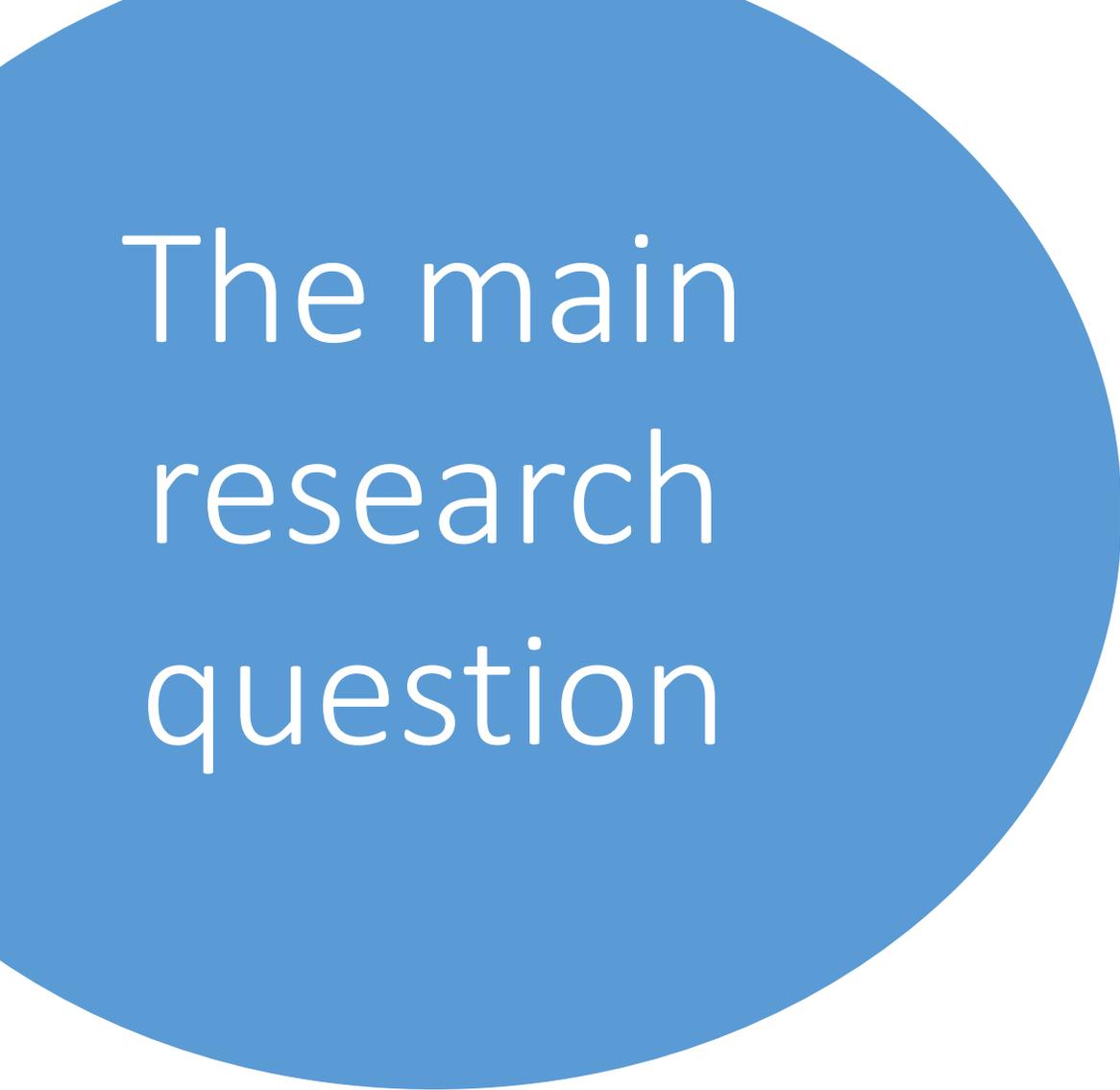
Positive association	No Association or a negative association	Mixed reviews
Albada, Ausems, Bensing, & van Dulmen, 2009; Albarracin et al., 2005; Glanz & Bishop, 2010; Noar, Benac, & Harris, 2007; Swann, Bove Kosmin, & McCormick, 2003; Taylor, Conner, & Lawton, 2011	Gardner, Wardle, Poston, & Croker, 2011; Roe, Hunt, Bradshaw, & Rayner, 1997; Stephenson, Imrie, & Sutton, 2000	Ammerman, Lindquist, Lohr, & Hersey, 2002; Bhattarai et al., 2013; Kim, Stanton, Li, Dickersin, & Galbraith, 1997

Source: Michie, S., West, R., Campbell, R., Brown, J., & Gainforth, H. (2014). *ABC of behaviour change theories*. Place of publication not identified: Silverback Publishing.



Aim of the review

Identify and synthesize current theoretical explanations for behavior change maintenance to inform future research and practice.



The main research question

“What are the current theoretical explanations for behaviour change maintenance?”

Conceptual
background of
behavior
maintenance

“Behavioral potential”

The likelihood of enacting each behavioral response at a given time and in a given context.

Rotter, J. B. (1960). Some implications of a social learning theory for the prediction of goal directed behavior from testing procedures. *Psychological Review*, 67(5), 301–316.

Fictional example

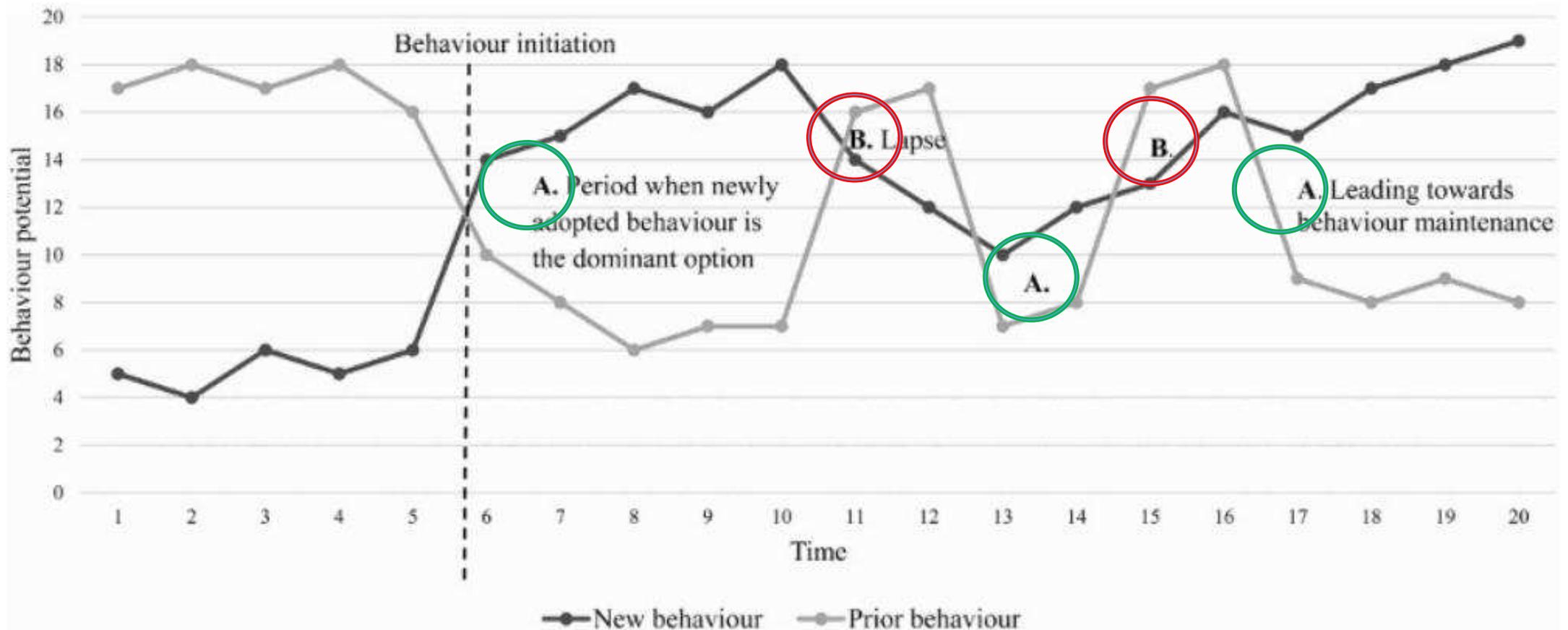


Table 1. A summary of methods

1. Theory identification	From three data sources:
	<ol style="list-style-type: none"> 1. Systematic on-line search 2. 'Theory Project' list of 80 theories 3. Contact with 40 experts (25 replied)
2. Inclusion/exclusion	Criteria and definition of terms
3. Data extraction	Including: ID number; theory name, full reference; verbatim general statements about behaviour change maintenance (direct quote) and explanations of behaviour change maintenance (interpretation); intended theoretical application; specified population and/or behaviour
4. Narrative data synthesis	<p>(A) Testable explanations for behaviour change maintenance reviewed in included theories</p> <p>(B) Generation of themes: testable explanations analysed and grouped into theory themes and subthemes</p> <p>(C) Theory themes validated (10 health psychology researchers)</p>
5. Review writing	Review structured around the themes; interconnections between the themes discussed

Most commonly suggested theories

- Transtheoretical Model of Behavior Change (Prochaska & DiClemente) ($n = 11$)
- The Health Action Process Approach (Schwarzer) ($n = 10$)
- Social Cognitive Theory (Bandura) ($n = 9$)
- Relapse Prevention Theory (Marlatt & Gordon) ($n = 9$)
- Rothman's Theory of Maintenance ($n = 8$)
- Self-Determination Theory (Deci & Ryan) ($n = 7$)
- Habit Theories ($n = 6$)

Themes

- 1 Maintenance motives
- 2 Self-regulation
- 3 Habits
- 4 Resources
- 5 Environment and social influences

Theme 1. Maintenance motives

A behavior is more likely to be sustained if at least one of the following is true:

- There is immediate affective outcomes rather than long-term and rational outcomes
- The person enjoys engaging in the behavior
- The behavior is compatible with the person's identity, beliefs and values

Maintenance Motives: Related Theory

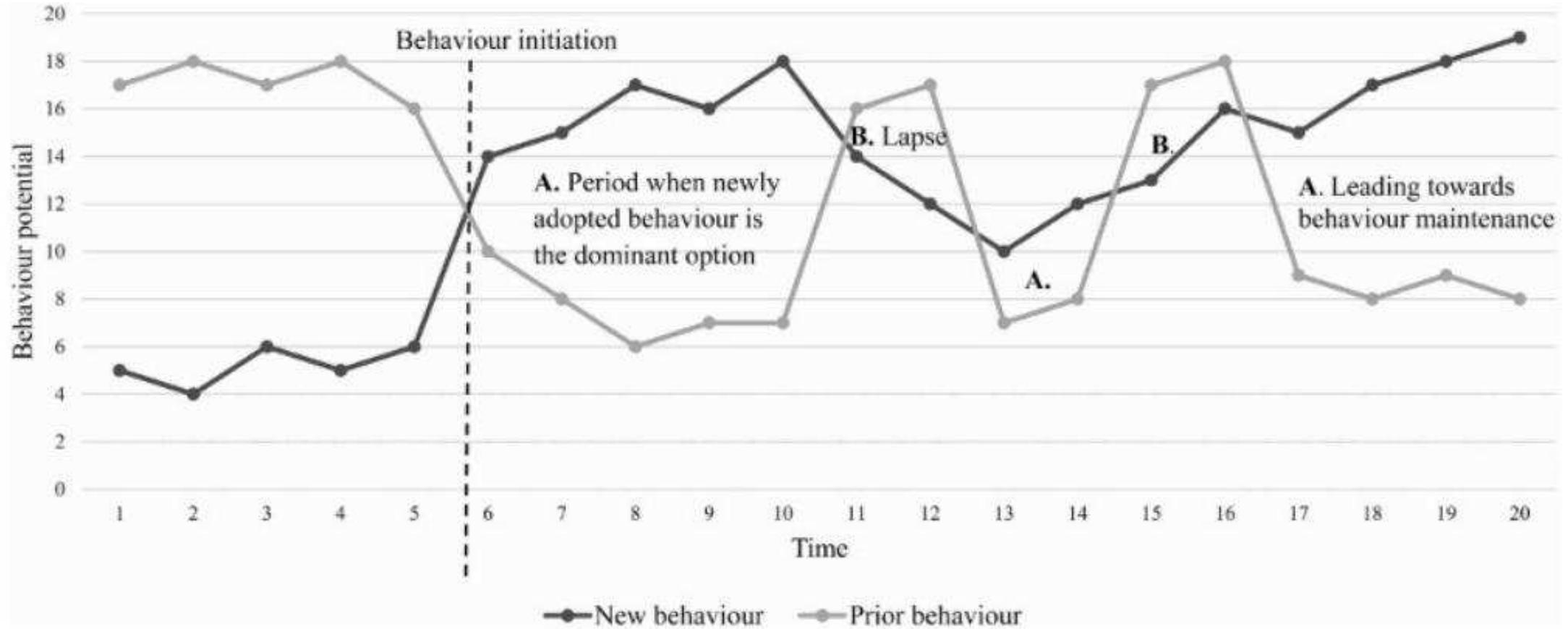
- Precaution Adoption Process Model (Weinstein & Sandman)
- Regulatory Fit Theory (Higgins)
- Temporal Self-Regulation Theory (Hall & Fong)
- Model of Behavior Maintenance (Rothman)
- Behavioral Model of Medication Adherence (De Buin et al.)
- Self-Determination Theory (Deci & Ryan)
- Self-Concept Theory (Braken)
- Self-Schema Theory (Markus)
- Health Behavior Internalization Model (Bellg)



Theme 2. Self-regulation

Ongoing processes of self-monitoring, self-evaluation, and Self-reinforcement and dealing with impulsive influences

Fictional example



Theme 3. Habits

THE **7** HABITS OF
**HIGHLY
DEFECTIVE
PEOPLE** OW!

S. AZZAMS E-MAIL: SCOTTADAMS@AOL.COM

1. IGNORE ANY SIGNS OF DISCOMFORT IN OTHERS.
BUT HEY, I'VE BEEN DOING ALL OF THE TALKING.

2. USE HUMOR TO BELITTLE PEOPLE IN PUBLIC.
OUR NEWEST TEAM MEMBER HAS MOVIE STAR LOOKS. SPECIFICALLY, LASSIE.

3. TREAT ALL COMPLAINTS AS THE COMPLAINER'S FAULT.
YOU DON'T MOTIVATE ME. MAYBE YOU SHOULD SEE A THERAPIST.

4. SHOW UP LATE AND RAISE CONTROVERSIAL ISSUES.
I THINK WE SHOULD LICENSE "BARNEY" AS OUR MASCOT.

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5. GIVE ADVICE ON THINGS YOU DON'T UNDERSTAND.
TRY WRITING SOME ASSEMBLY LINE CODE HERE.

6. USE COMPLIMENTS TO SHOW YOUR PREJUDICES.
OOH, NICE CRISP PHOTOCOPY, ALICE. I DON'T THINK A MAN COULD HAVE DONE IT BETTER!

7. THINK THE COMICS ARE NOT ABOUT YOU.
HEE HEE! LOOK AT THE HAIR ON THAT GUY!

Related theories

- Habit Theory (Verplankent & Aarts)
- Transtheoretical Model of Behavior Change (Prochask & DiClemente)
- Health-Related Model of Behavior Change (Hunt & Martin)
- Theory of Interpersonal Behavior (Triandis)
- Classical conditioning (Pavlov)
- Operant conditioning (Skinner)

Human behavior shaped by two systems (Dual Process Model)

Reflective, goal oriented system

- Driven by our values and intentions
- Requires cognitive capacity or thinking
- Many behavior change approaches target this system (i.e., designed to alter beliefs and attitudes)

Automatic, affective system

- Requires little or no cognitive engagement
- Driven by immediate feelings and triggered by environments

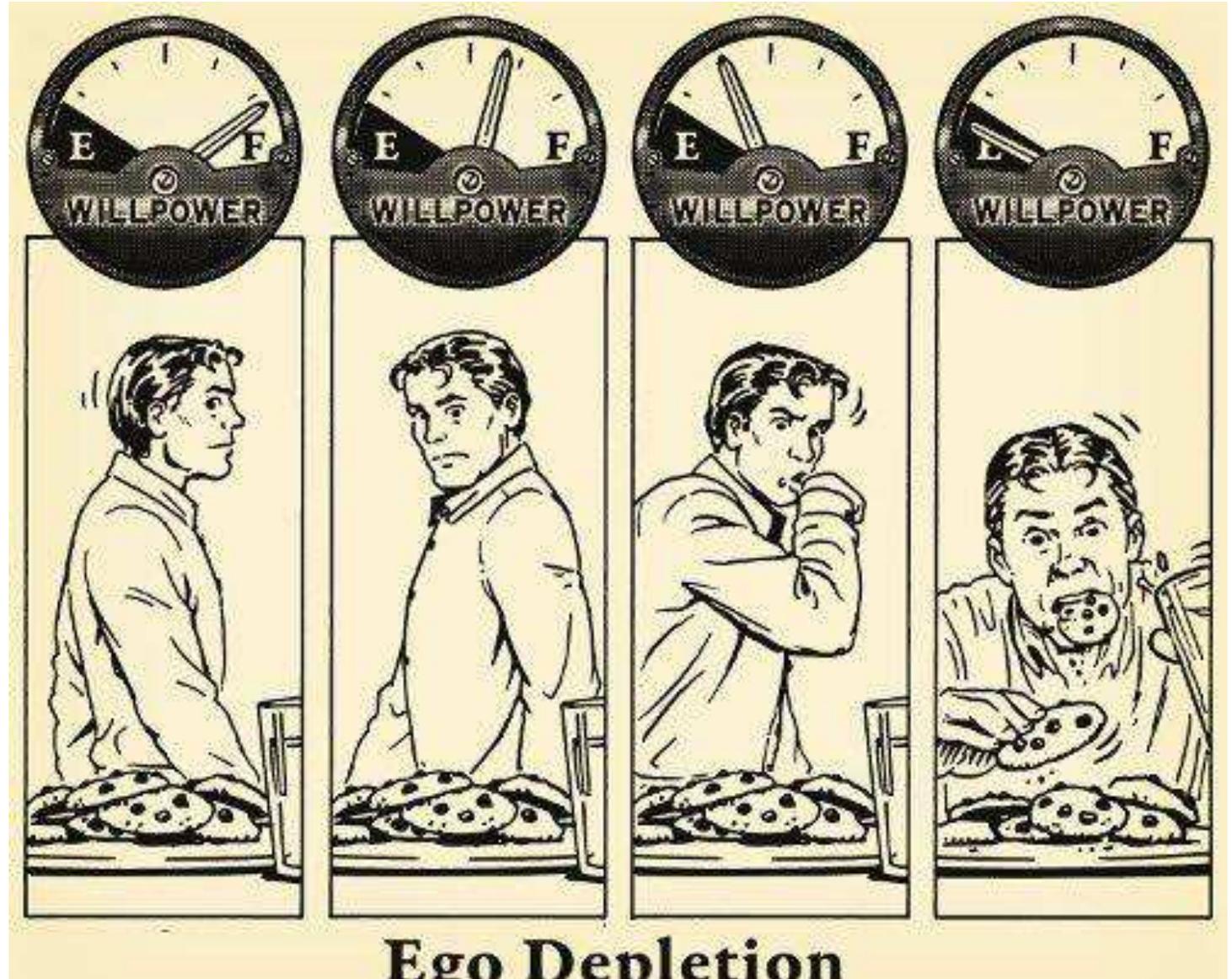
Theme 4. Resources

“Resources are psychological and physical assets that can be drawn on during the process of behavioural regulation.”



Lapse or relapse is possible with

- Low working memory capacity
- High cognitive load
- Ego depletion
- Intoxication
- Stress
- Exhaustion





**Theme 5. Environment
and social influences**

Environment



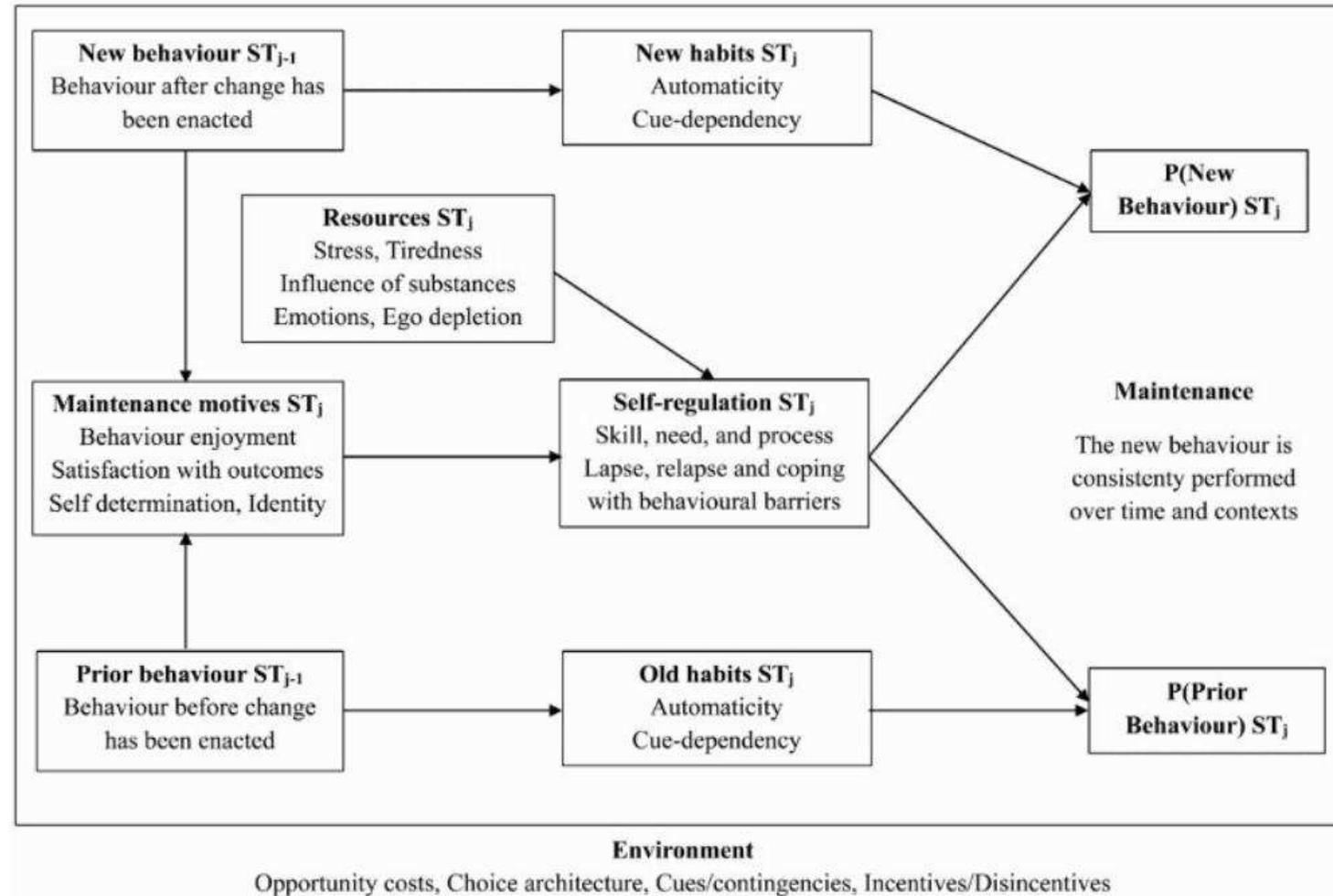
Social influence



Social change



Figure 3. Hypothesised relationships between themes derived from maintenance theories in the process of behaviour change maintenance



Main lessons and applications to our work in global health

- Emphasize the positive outcomes of a new health behavior
- Provide behavioral options which are enjoyable
- Encourage individuals to redefine themselves in line with new healthy lifestyle principles
- Create opportunities for individuals to self-monitor their behavior
- Design interventions that support individuals to develop effective coping strategies and strategies to overcome behavioral barriers
- Facilitate habit development and maintenance
- Utilize cue for action in the environment and remove cues that may trigger unhealthy behaviors.
- Providing individuals with resources that are needed to successfully maintain a new health behavior- physical (e.g., bike lanes, products) or psychological (e.g., self-regulation training, mindfulness and relaxation methods)
- Design interventions to increase social support and a sense of relatedness between people

Can you think of interventions that are doing some of these things?

Antje and Lenette's opinion of the article



Antje Becker-Benton



Lenette Golding

ISLAGIAT

'It Seemed Like a Good Idea At The Time.'

Dr. Martin Eccles