

BY FORCE OF HABIT

USING HABIT TO UNDERSTAND WEIGHT MANAGEMENT BEHAVIOURS

DR. BENJAMIN GARDNER
2ND DECEMBER 2015



**Institute of Psychiatry, Psychology, and
Neuroscience**

Department of Psychology

KING'S
College
LONDON

“A settled disposition or tendency
to act in a certain way”

(Oxford English Dictionary)

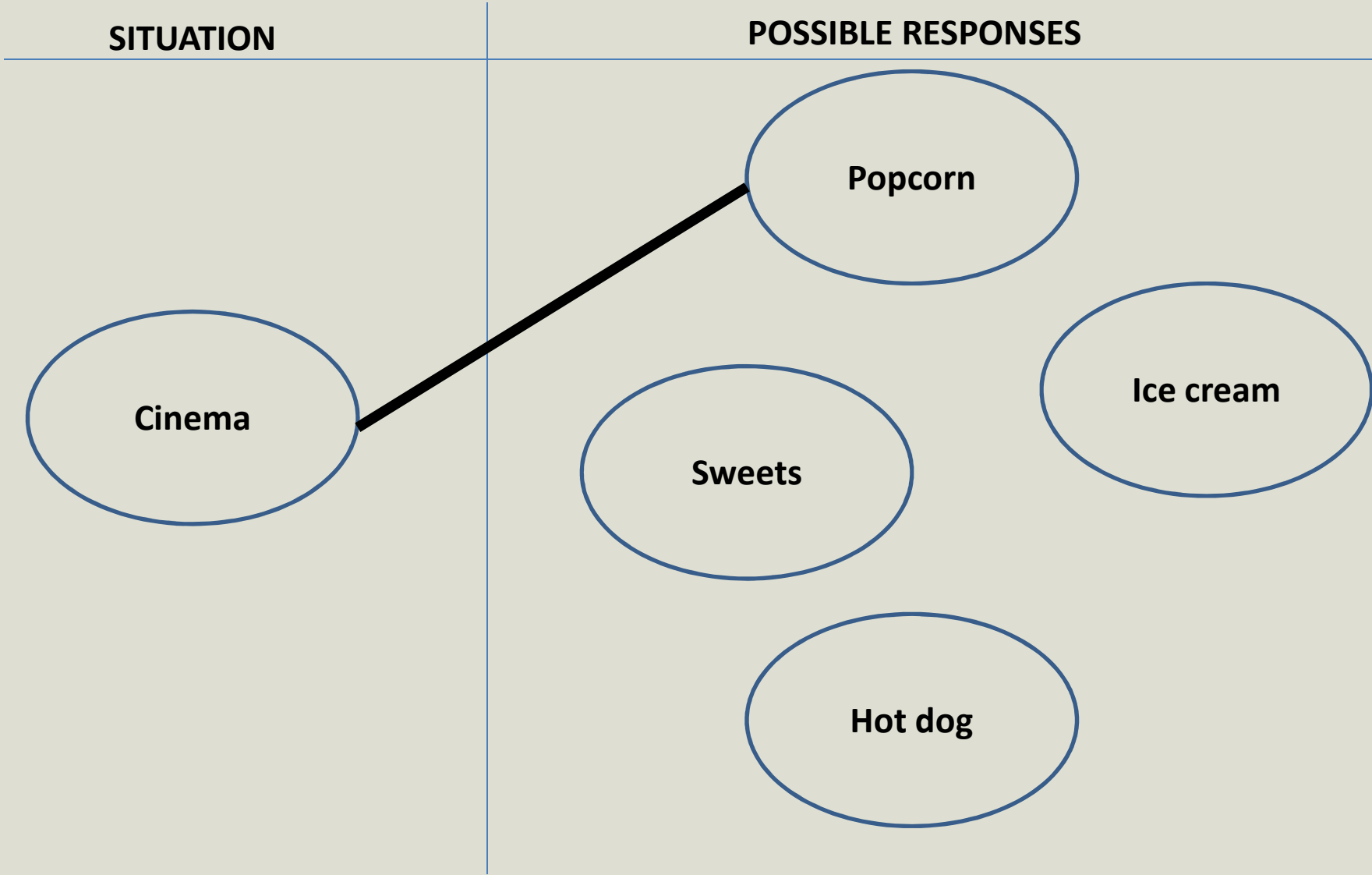
“Actions that have come to be
automatically triggered by
situational cues”

(Verplanken & Aarts, 1999)

Defining habit

- Learned
- Cue-dependent
- Automatic
 - Do not require intention
 - May be initiated without awareness
 - Are initiated outside of volitional control
 - Requires little/no effort (*Bargh, 1996*)

Habits narrow our attention



How do habits form?

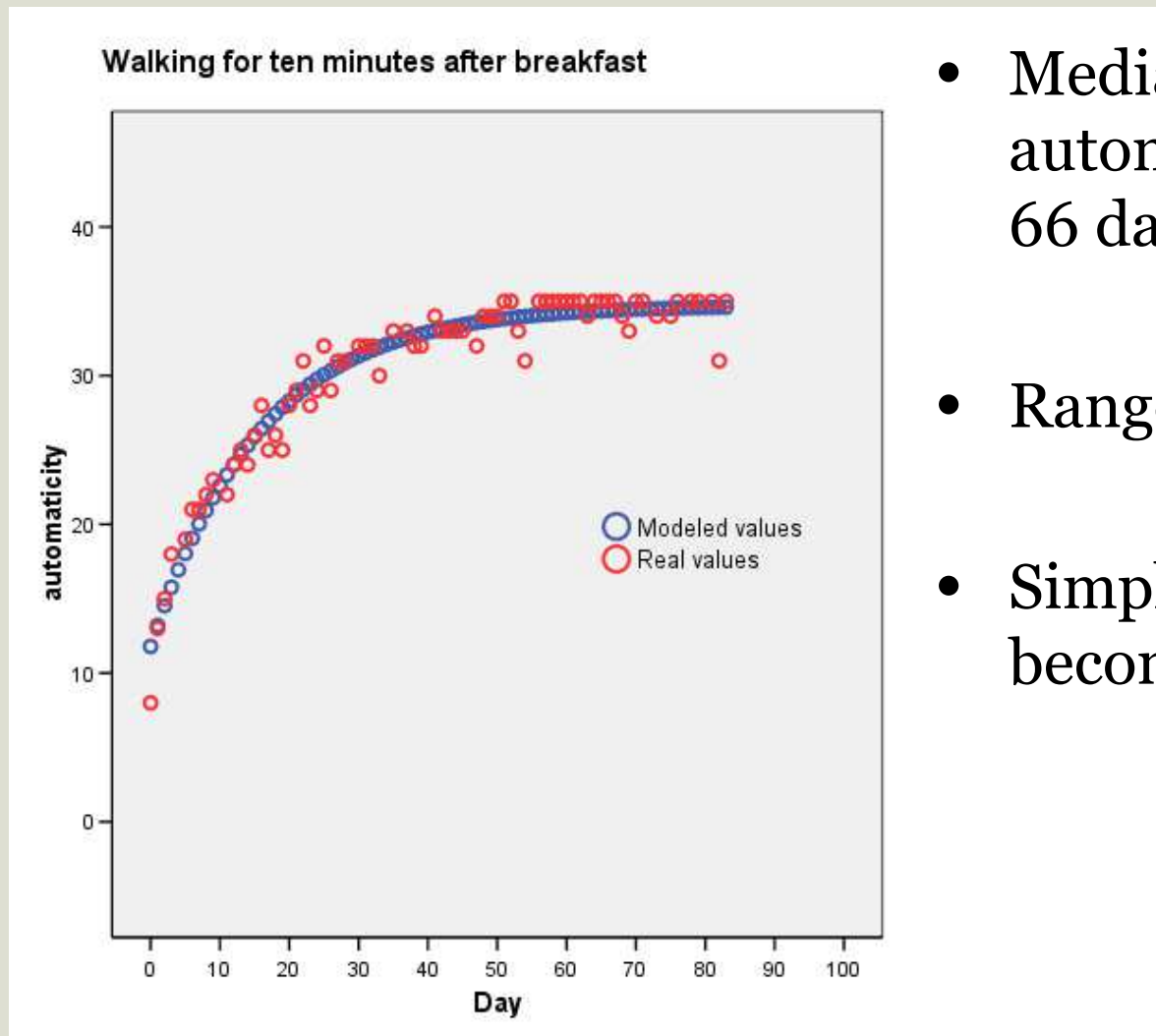
Lally, van Jaarsveld, Potts & Wardle (2010)

- 96 participants
 - Performed a new healthy eating, drinking or exercise behaviour...
 - Once a day, every day
- Each day, participants reported
 - automaticity of behaviour (i.e. habit)
 - whether bhvr performed
- Participants tracked over 12 weeks



How do habits form?

Lally, van Jaarsveld, Potts & Wardle (2010)



- Median time for automaticity to plateau = 66 days
- Range: 18-254 days
- Simpler actions tended to become habitual quicker

Other 'habit formation duration' claims

Exercise:

“Exercising for *at least four bouts per week for 6 weeks ...*
the minimum requirement to establish an exercise habit”

(Kaushal & Rhodes, 2015)

Healthy child-feeding:

- Habit gains peaked in *two weeks*

(Gardner et al, 2014)

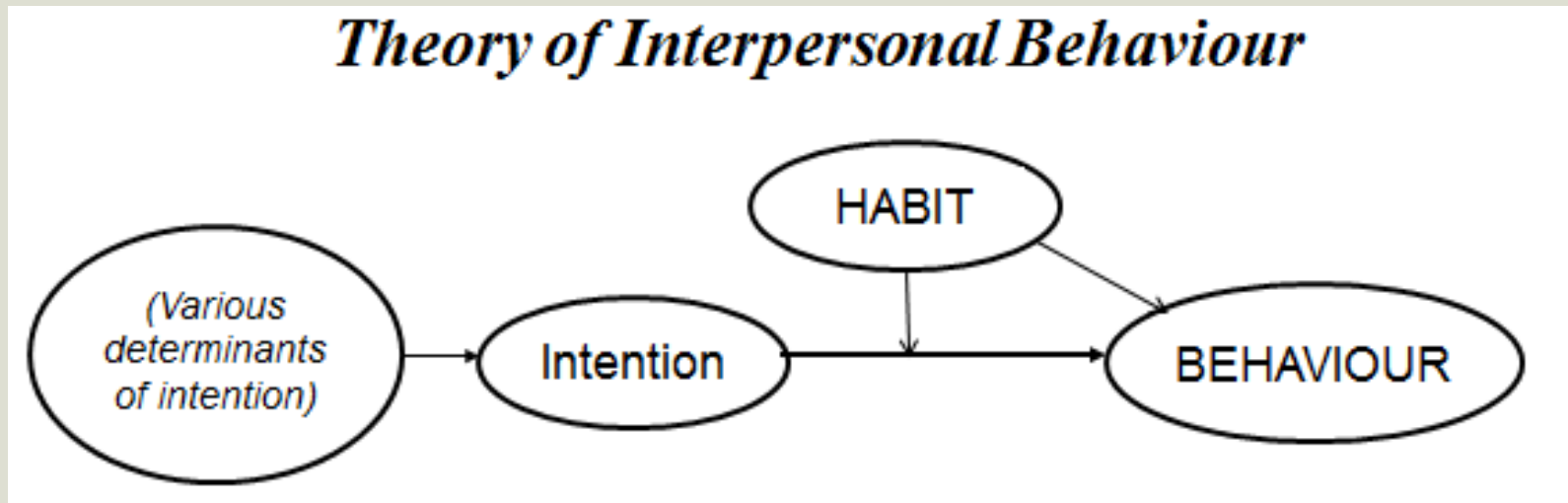
Diet and exercise:

- Noticeable gains *within two weeks*

(Lally et al, 2011; Matei et al, 2015)

How does habit affect behaviour?

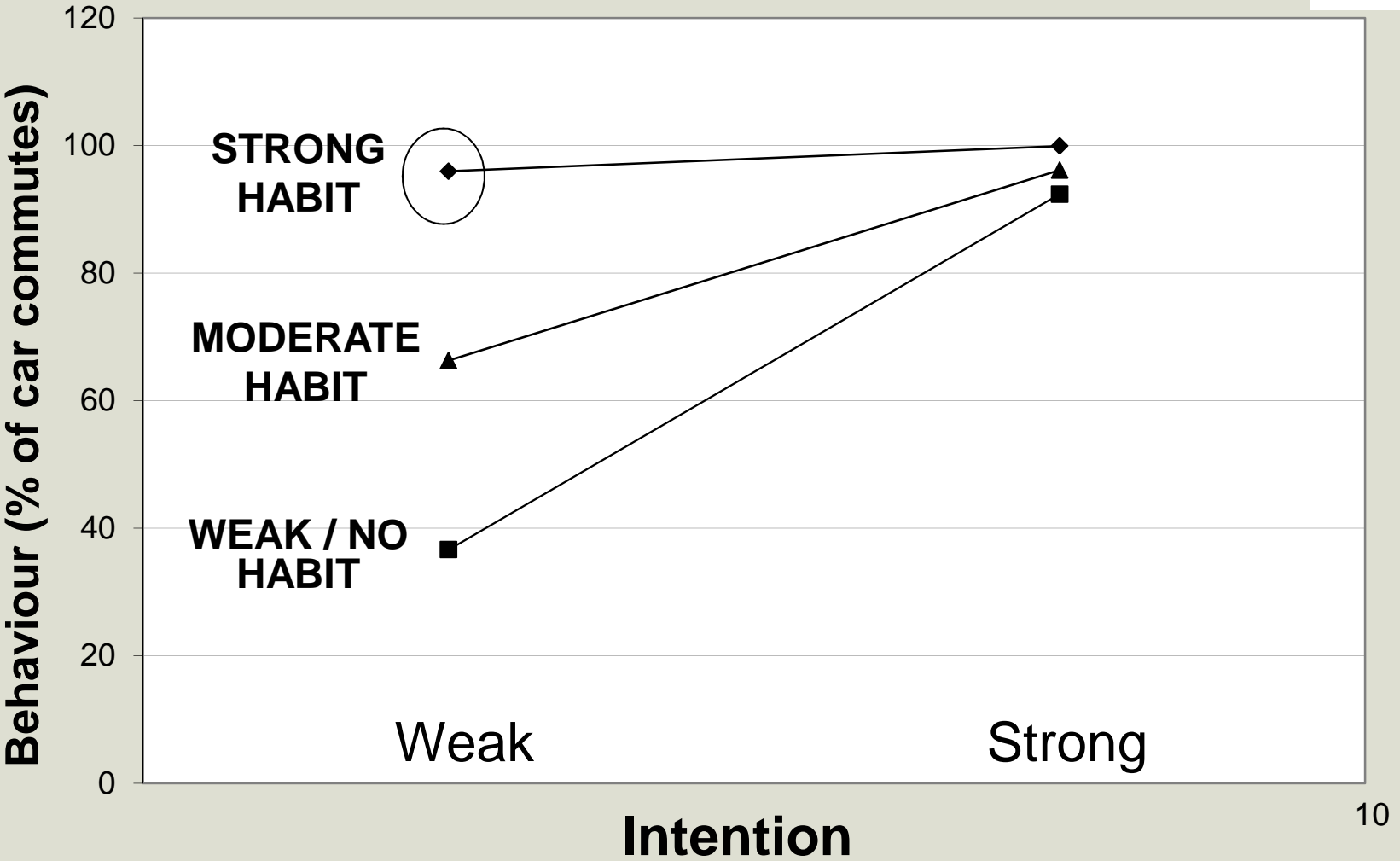
Triandis (1977)



- 1) Habit strength will **correlate positively with behaviour frequency**
- 2) Habit strength will **moderate the intention-behaviour relationship**
 - where habit is strong, intentions have less impact on behaviour
 - where habits and intentions conflict, behaviour more likely to be habitual than intentional

Habit overrides intentions

Gardner (2009)



Effects of habit on behaviour

Gardner, de Bruijn & Lally (2011)

- Review of (21) applications of Self-Report Habit Index to diet (14) and physical (in)activity (7)
- Meta-analysis of habit-behaviour correlation:
Overall $r_+ = .44$
- Overall, 8/9 tests showed habit to moderate intention-behaviour relation

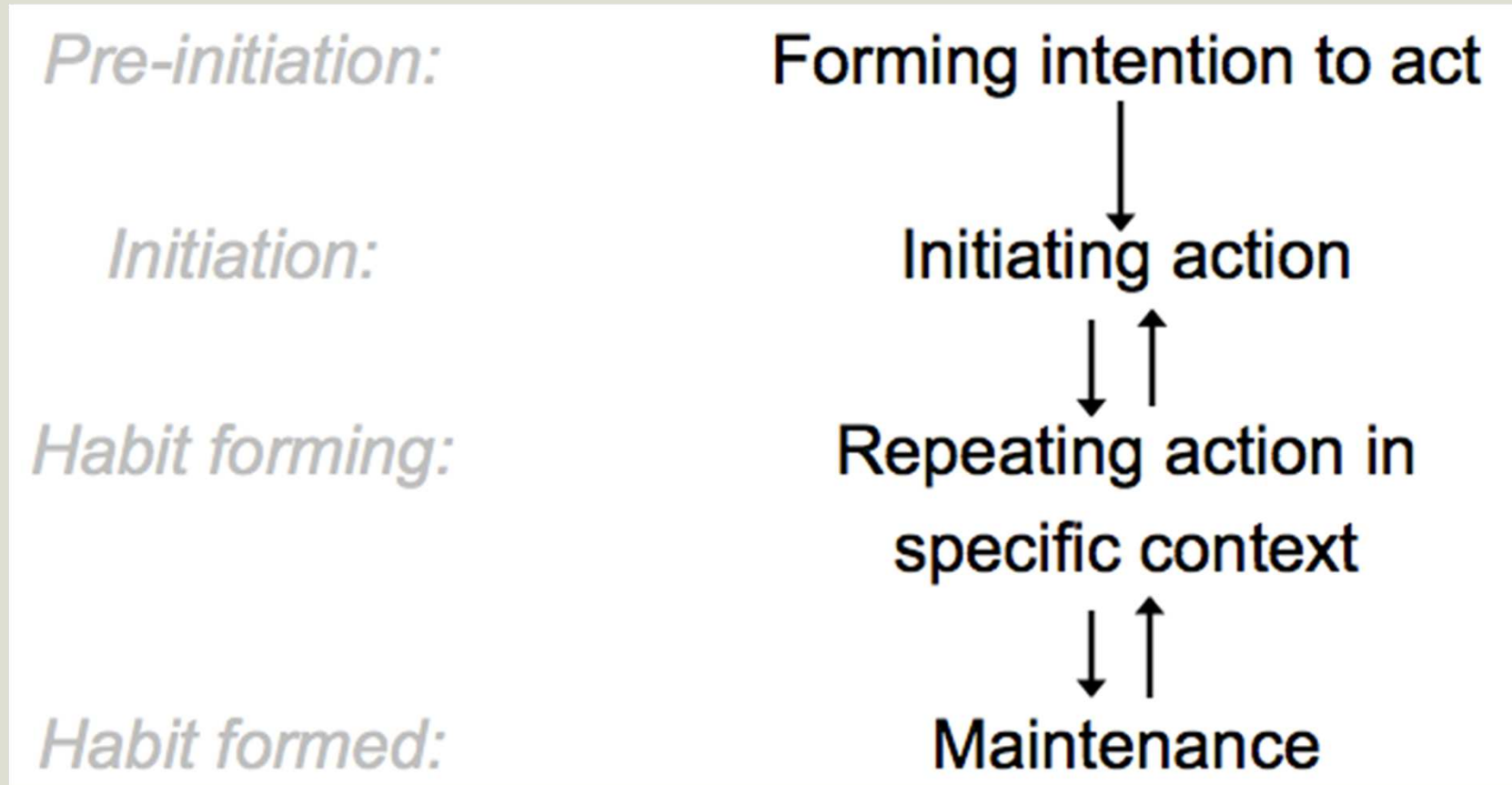


If habits override intentions...

Verplanken & Wood (2006)

- Making healthy behaviours habitual may aid maintenance when motivation dips
 - Forming habits for healthy actions could help to maintain behaviour change

Stages of habit-formation (Lally & Gardner, 2013)



Habit-formation advice (Gardner et al, 2012)

- **Repeat the behaviour consistently in the same context**
- Repetition depends on keeping motivated, so:
 - *Be self-determined*: Choose your own behaviour
 - *Make it easy*: Choose simple goals ('small changes')
 - *Make it relevant*: Choose everyday cues
 - *Be reassured*: As habit forms, will become easier
 - *Self-regulate*: Self-monitor to track progress



An example: The Ten Top Tips for weight loss

Lally et al (2008, 2011)

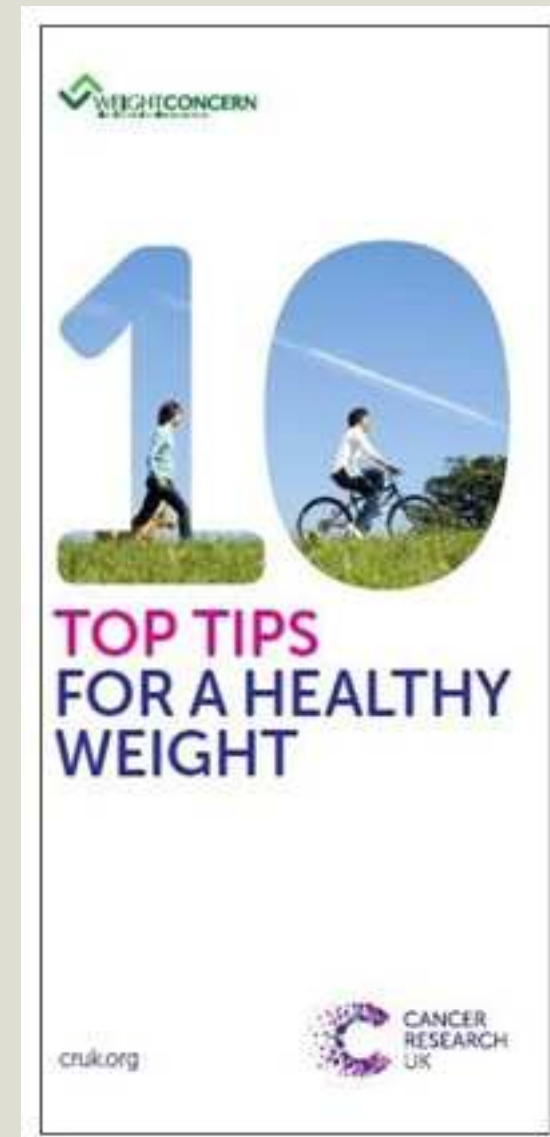
- 10 **simple** tips for diet and activity, designed to aid habit formation

1 KEEP TO YOUR MEAL ROUTINE

Try to eat at roughly the same times each day, whether this is two or five times a day. This will help you avoid unplanned meals and snacks which are often high in calories.

Handy hints:

- pick a pattern that fits your daily routine and stick to it
- if you tend to snack, try to snack around the same time each day
- plan when you intend to eat and check at the end of the day if you have achieved this.



Does being overweight matter?

Being overweight affects your health. It increases the risk of many types of cancer. It also increases the risk of diabetes, high blood pressure, coronary heart disease, osteoarthritis and stroke.

Ten top tips tick sheet

Keeping track of your progress

Fill in this tick sheet every day to record whether or not you managed each tip. Keeping a record has been shown to increase people's success in developing healthy habits.

TEN TOP TIPS	M	T	W	T	F	S	S
1. KEEP TO YOUR MEAL ROUTINE							

Ten Top Tips evaluation

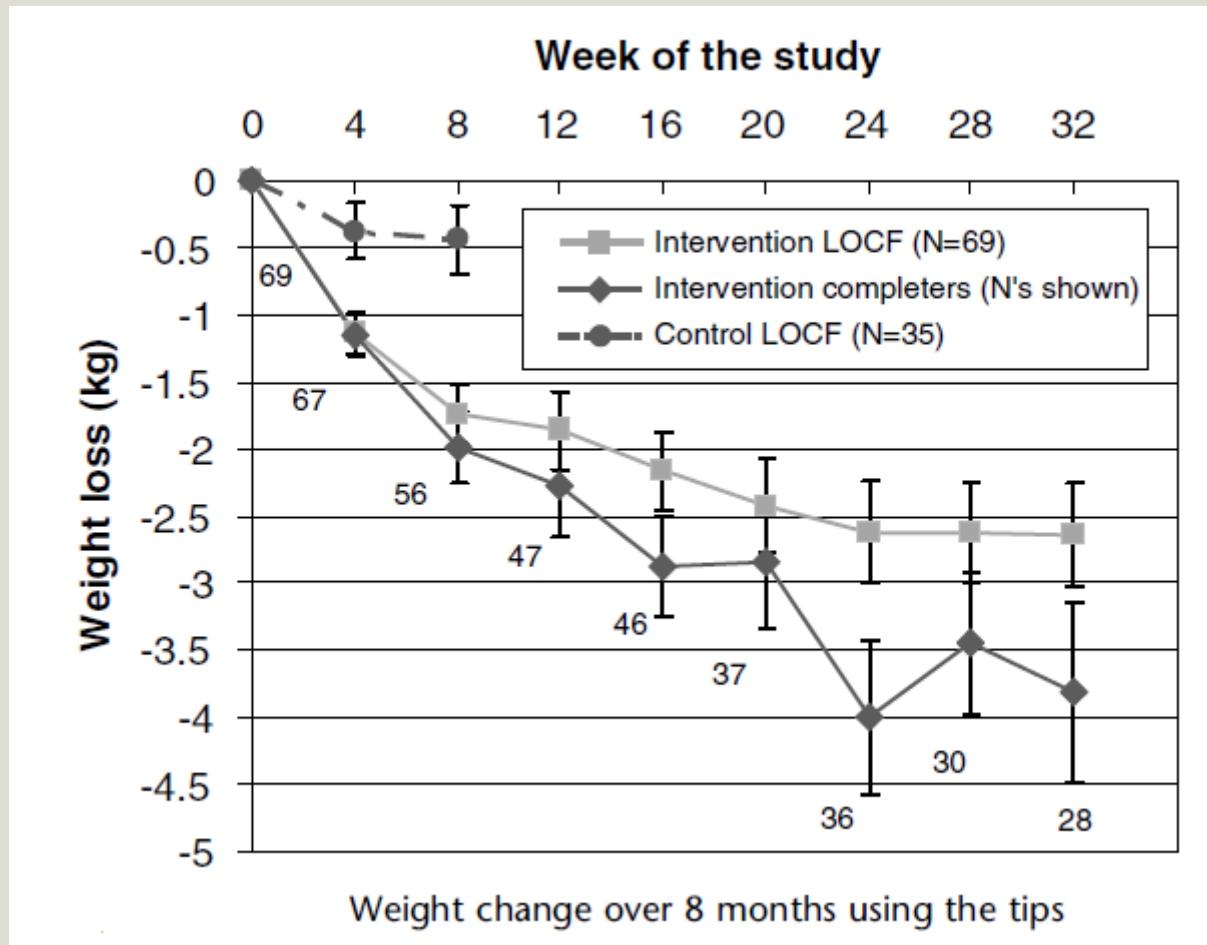
Lally et al (2008)

- 104 overweight pcpts
 - Baseline BMI \approx 31.0
- All participants followed up at 8 weeks
 - Intervention groups also followed at 32 wks

	Control	Intervention + monthly weighing	Intervention + weekly weighing
<i>Completers</i>	-0.42kg (N = 33)	-2.40kg (N = 26)	-1.64kg (N = 30)
<i>Intention to treat</i>	-0.44kg (N = 35)	-2.03kg (N = 33)	-1.48kg (N = 36)

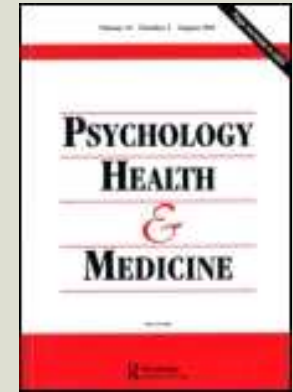
Ten Top Tips evaluation

Lally et al (2008)



Interviews with TTT participants

Lally, Wardle & Gardner (2011)



Behaviour change initially effortful, but as habits develop, behaviours become easier and more familiar

*“Initially it was sort of difficult ...
but it got easier, it did get easier over time”*

*“They became automatic, they become
one routine the more it goes on”*

Failure to engage in habitual behaviour is anomalous and negatively experienced

*“It’s easy to have a salad, and now I
actually feel quite strange if I haven’t done”*

The Physical Activity Problem

Engaging in active sports and/or vigorous physical activities during my leisure time is something I do without having to consciously remember.



In what respect is physical activity ‘habitual’?

Two types of 'habitual behaviour'



1) **Deciding** to do a behaviour

- selecting and activating behaviour
- e.g. upon leaving work, '*choosing*' to go for a run
- cue = any internal or external event
- acts as a mental 'reminder' to do action (*e.g. Tobias, 2009*)

'Habitual instigation'

Two types of 'habitual behaviour'



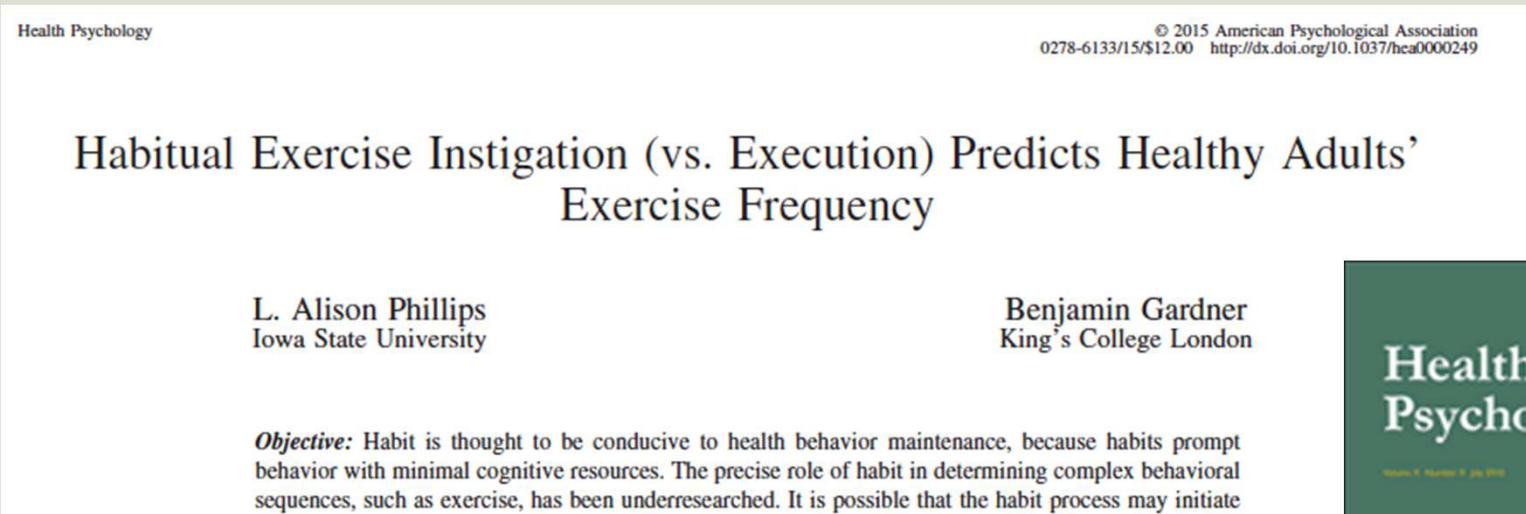
2) **Doing** the behaviour

- performing action
- e.g. after deciding to 'go for a run', doing everything involved in 'going for a run' in fixed automatic sequence
- cue = cessation of previous sub-action, or its outcomes
- allows us to attend to other things while acting (*Wood et al, 2002*)

'Habitual execution'

Predicting exercise behaviour

Phillips & Gardner (2015)



- N = 123, 1-month prospective study
- SRHI:
 - Instigation: *'Deciding to exercise is something...'*
 - Execution: *'Once I am exercising, going through the steps of my routine is something...'*
- Instigation predicted bhvr, execution did not



THANK YOU

Benjamin.Gardner@kcl.ac.uk

@drbengardner

