

Prompting Healthy Food Choices: What Does Health Psychology Tell Us?



Julia Allan

Rowett Institute of Nutrition and Health

Human behaviour is controlled by two systems

System 1 Rational

- Conscious
- Effortful
- Logical

Taking in information,
pursuing goals,
making decisions



System 2 Automatic

- Unconscious
- Effortless
- Impulsive

Cued by feelings,
associations and what
we see around us



What does this mean for behaviour change?

Broadly speaking, there are two options for changing behaviour and encouraging healthy food choices ;

Target System 1

Educate people about *how* and *why* to make healthy food choices, convey risk of unhealthy choices and **motivate/ support** action



Target System 2

Make healthy choices **easier**, more **accessible**, more **visible**, while reducing temptation from unhealthy choices

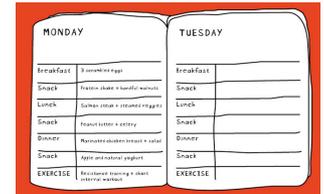
What do we know?

Approach 1: Educate & Motivate

Better specification- 40 behaviour change techniques with a theoretical evidence base that can be used to try and change dietary behaviour (Michie et al, 2011)

Of these, **self monitoring, providing instruction and relapse prevention** improve effectiveness of dietary behaviour change interventions (Dombrowski et al, 2012)

Fear appeals -don't work unless efficacy (confidence) is high. They actually reduce behaviour change when confidence is low (Peters et al, 2013)



What do we know?

Approach 2: Change the Environment

Environmental determinants of eating

The **'tyranny of choice'**- As options increase, people simplify their decision making (e.g. Wright, 1975).

Size matters – People eat more from larger packs/ bowls/plates (Wansink, Painter & North, 2005; Wansink, 1996; Wansink & Cheney, 2005)

Over accessibility- people eat more when foods are convenient, easily accessible and visible (Painter et al, 2002)

Positive associations- children (and adults) choose foods that others around them eat, that have appealing branding etc (Horne et al, 2004)



What do we know?

Make healthy options more **visible and convenient**, e.g. move healthy foods to prime shelf locations / closer to purchaser in cafes (Rozin et al, 2011)



Make nutritional information accessible (not just available) at the moment of choice (Allan et al in press).



Exploit automatic tendencies in product design, e.g. smaller plates, tall thin glasses (Wansink & van Ittersum, 2003)



Create positive associations to healthy foods e.g. Food Dudes (Lowe et al, 2004)

Visually cue healthy behaviours at key moments (e.g. Payne, unpublished supermarket trolley study; Geier et al, 2012 red crisps)



Conclusion

Successful behaviour change on a large enough scale to improve population health requires two things;

1. Positive engagement with the food industry to identify 'win-wins'
2. Successful individual level strategies (i.e. education and motivation) in combination with environmental strategies to support and prompt healthy choices (or that at least stop supporting and prompting unhealthy choices)

Julia Allan
Chartered Psychologist

j.allan@abdn.ac.uk

Key Refs: Marteau TM, et al (2012) Changing human behavior to prevent disease: The importance of targeting automatic processes. *Science*, 337, 1492

Chandon P & Wansink B. (2012) Does food marketing need to make us fat? A review and solutions. *Nutrition Reviews*, 70, 571-593



References

Key Refs:

- Marteau TM, et al (2012) Changing human behavior to prevent disease: The importance of targeting automatic processes. *Science*, 337, 1492
- Chandon P & Wansink B. (2012) Does food marketing need to make us fat? A review and solutions. *Nutrition Reviews*, 70, 571-593

Other Refs:

- Strack F & Deutsch R (2004) Reflective and impulsive determinants of social behaviour. *Personality & Social Psychology Review*, 8, 220-247.
- Michie S, Ashford S, Sniehotta FF, Dombrowski SU, Bishop A & French DP (2011) A refined taxonomy of behaviour change techniques to help people change their physical activity and health eating behaviours: the CALO-RE taxonomy. *Psychology & Health*, 26, 1479-1498.
- Dombrowski SU, Sniehotta FF, Avenell A, Johnston M, MacLennan G, Araújo-Soares V (2012) Identifying active ingredients in complex behavioural interventions for obese adults with obesity-related co-morbidities or additional risk factors for co-morbidities: a systematic review. *Health Psychology Review*, 6, 7-32
- Peters G-J Y, Rutter RAC & Kok G (2013) Threat communication: a critical re-analysis and a revised meta-analytic test of fear appeal theory. *Health Psychology Review*, 7(Supp), S8-S31.
- Wright P (1975). Consumer choice strategies: Simplifying vs. optimizing. *Journal of Marketing Research*, 12, 60-67.
- Wansink B, Painter JE & North J (2005) Bottomless bowls: why visual cues of portion size may influence intake. *Obesity Research*, 13, 93-100.
- Wansink B (1996) Can package size accelerate usage volume? *Journal of Marketing*, 60, 1-14.
- Wansink B & Cheney MM (2005) Super Bowls: serving bowl size and food consumption. *Journal of the American Medical Association*, 293, 1727-1728.
- Painter JE, Wansink B & Hieggelke JB (2002) How visibility and convenience influence candy consumption. *Appetite*, 38, 237-238.
- Horne PJ, Tapper K, Lowe CF, Hardman CA, Jackson MC, Woolner J (2004) Increasing children's fruit and vegetable consumption: a peer-modelling and rewards-based intervention. *European Journal of Clinical Nutrition*, 58, 1649-1660.
- Rozin P, Scott S, Dingley M, Urbanek JK, Jiang H & Kaltenbach M (2011) Nudge to nobesity I: minor changes in accessibility decrease food intake. *Judgement and Decision Making*, 6, 323-332.
- Allan JL, Johnston M & Campbell N (in press) Snack purchasing is healthier when the cognitive demands of choice are reduced: a randomised controlled trial. *Health Psychology*.
- Wansink B & van Ittersum K (2003) Bottom's Up! The influence of elongation on pouring and consumption volume. *Journal of Consumer Research*, 30, 455-63.
- Lowe CF, Horne PJ, Tapper K, Bowdery M & Egerton C (2004). Effects of a peer modelling and rewards-based intervention to increase fruit and vegetable consumption in children. *European Journal of Clinical Nutrition*. 58, 510-522.
- Geier A, Wansink B & Rozin P (2012) Red potato chips: segmentation cues can substantially decrease food intake. *Health Psychology*, 31, 398-401.