

Easier Said Than Done

Why we struggle with healthy behaviours and what to do about it

By Nathalie Spencer December 2015



Contents

About us	3
Acknowledgements	4
Summary	5
Changing behaviour to change lives	7
More of the good stuff: WEST	7
Walking	9
Eating	11
Sleeping	13
Talking	15
Bringing WEST together	17
What can we do to encourage take up of these actions?	19
When WEST meets EAST	20
Financial incentives	20
Designing products and spaces	20
Helping ourselves stick to goals	21
Commitment devices	21
Temptation bundling	22
Implementation plans	23
Conclusion: Converting sporadic changes into lifestyles	24
References	25

About us

Nathalie Spencer is a Senior Researcher in the RSA's Social Brain team, a team that applies insights from behavioural science to various issues of our times, ranging from healthy living to financial capability, climate change to educational inequality.

The RSA (Royal Society for the encouragement of Arts, Manufactures and Commerce) believes that everyone should have the freedom and power to turn their ideas into reality – we call this the Power to Create. Through our ideas, research and 27,000-strong Fellowship, we seek to realise a society where creative power is distributed, where concentrations of power are confronted, and where creative values are nurtured. The RSA Action and Research Centre combines practical experimentation with rigorous research to achieve these goals.

Philips is a technology company that cares about people and their health. It has operated in the healthcare sector for 100 years and its mission is to improve the lives of 3 billion people a year by 2025. Philips focuses on keeping people healthy for as long as possible and on being there every step of the way when they're not. The company wants to motivate people to monitor and manage their health and it believes healthcare should be provided as a seamless service between the home, hospitals and medical professionals.

Philips is uniquely positioned to deliver connected care. It is the only health technology company with a range of professional and consumer offerings that can combine clinical and personal health data across the continuum to encourage prevention and healthy living, to speed diagnosis and treatment, and to enable better home care.

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Summary

Around this time of year, people start thinking about how to make meaningful changes in their lives, often relating to health. Yet many of us struggle to stick with these new year's resolutions to live healthily. The problem is mostly not lack of knowledge. We have abundant information relating to the amounts and types of diet, exercise, rest and communication that help with our physical and mental health, yet we often struggle to follow those recommendations and actively manage our health.

This paper is not about new year's resolutions as such, but more about the broader want/should dilemma of when what we know we should be doing (which is often the new year's resolution) is not aligned with what we want to do right now, on a day to day basis, and how this dilemma may influence our likelihood to make meaningful changes to our health-related behaviours.

This short proposition paper aims to provoke thought around how we can actively manage our health and reduce the risk factors associated with many serious diseases.

First, we categorise healthy living behaviours into four categories: walking, eating, sleeping, and talking, easily remembered by the mnemonic WEST. These behaviours are part of a broader social and cultural pattern of living to be considered when trying to change our health-related behaviour.

An important issue here is that many healthy lifestyle injunctions are perceived as a loss of something immediate – loss of calories, loss of comfort, loss of convenience – whereas the benefits are psychologically more distant because their accrual is uncertain and in the future. The psychological closeness of the losses tip the behavioural balance towards keeping to the status quo and not changing our behaviour. Yet this is a poor strategy for the medium- and long-term, because for many people, we stand to gain so much through improved health and lower risk factors of disease by changing our lifestyles.

Second, there may be specific behavioural hurdles to implementing health-related changes. In other words, certain aspects of our human nature may undermine our ability or motivation to live healthily. These include our tendencies of optimism (which may dim the reality of future consequences), habit (sticking to our existing ways), empathy gaps (failing to empathise with our future healthy or sick selves), and myopia (being short-sighted). We also face other specific hurdles relating to the routines and the practices of each of the healthy-living components reviewed. These hurdles reinforce the 'want' behaviours over the 'should' behaviours.

Finally, insights from behavioural science provide some strategies to help us to initiate change in our lives – whether as a new year's resolution or at any other point in time. An initial change can be difficult, but as this

new behaviour becomes habitual it will be easier to maintain as part of a lifestyle of healthy living.

This paper is a stimulus to a broader programme of public engagement on issues of health and wellbeing at the RSA. The hope is that it will provoke thought around how to facilitate healthy living through a variety of approaches, not least by helping us to follow through on good intentions of actively managing our health.

Changing behaviour to change lives

"An important way to reduce NCDs is to focus on lessening the risk factors associated with these diseases."

World Health Organisation (WHO)

For many people, our lifestyles are making us sick. According to the WHO, non-communicable diseases (NCDs) such as cancers, heart attacks and strokes, asthma, and diabetes now account for a staggering 38 million deaths per year globally, and there are a number of modifiable behavioural risk factors associated with NCDs. These 'modifiable behavioural risk factors' like poor diet, smoking, drinking too much, and being sedentary, are aspects of our lifestyles that we can change.

However, a recent report by Philips surveying British adults and health care providers finds that even though almost everyone knows that they should actively manage their health to prevent illness or poor health down the line, most people are not actually doing so. Similarly, even though nearly nine out of 10 agree that individuals should take a lot of or full responsibility for their own health, this doesn't reflect the proportion of people actively managing it.²

In other words, things that we can change about our lifestyles contribute to poor health, and yet, many people aren't doing much to change them. Behavioural science sheds some light on why people might not be actively managing their health, despite good intentions. Understanding some of the factors that affect our behaviour could therefore be key to unlocking successful approaches to address these worrying health trends.

Reducing the risks of illness and diseases through a healthy lifestyle has numerous benefits. Easing the burden on the NHS means that funding can be redirected towards other health services; healthy communities can enjoy greater wellbeing; and we all stand to gain from improving our quality of life and the quality of the time we spend with our families and other loved ones.

More of the good stuff: WEST

What is the best approach for living healthily? What may work well for some people might not be appropriate approaches for other people. It is important to speak with a doctor to determine the best diet and lifestyle for you and your particular circumstances. For example, a recent study

- 1. WHO 2015.
- 2. Philips 2015.

finds that the same food can affect people's blood sugar levels differently based on their individual microbiome profile;³ the optimal level of physical activity will likely depend on existing health issues; and within a given range, the amount of sleep we need varies from person to person.

The purpose of this paper is not to provide tailored medical advice or to propose ground-breaking new healthy-living hacks. Rather, it is to provide a quick and easy mnemonic to keep in mind when thinking about the many aspects of healthy living, and to suggest the ways in which we can help ourselves to put recommendations into action – whatever those recommendations are. For ease of recall, we've grouped some examples of NHS recommendations into four categories, easily remembered by the word WEST: walking, eating, sleeping, and talking.⁴ Although these recommendations for healthy living are not particularly new nor likely to be surprising, the way we think about them – their framing – might matter for how likely we are to adhere to them in our own lives.⁵



The challenge with many health-creating behaviours is that they are framed as a loss (loss of calories, loss of comfort, loss of convenience), and this loss is concrete and immediate. The risks associated with not living healthily are also losses, but they are uncertain, abstract, and in the future. Our attention is therefore skewed towards trying to avoid the immediate losses rather than trying to avoid the more psychologically distant losses of illness. So perhaps framing immediate behaviour changes as 'gains' could help swing our motivation back towards the health-creating

- 3. NHS 2015d, citing Zeevi, Koem & Zmora 2015.
- 4. These four categories were developed at the RSA as a way of bringing together the many different guidelines that are available, while keeping them in some way grouped together for ease of mapping and recall. They are based loosely on the Public Health England campaign for middle-aged adults which suggests seven different activities to improve health: exercise more, eat well, drink less alcohol, reduce stress, get adequate sleep, stop smoking, and check for symptoms (Knapton 2015).
- 5. Two other activities are notably absent from this additive model, activities which are considered modifiable behavioural risk factors of NCDs but which cannot be easily reframed as being an addition or gain: stopping smoking, and reducing alcohol. However, it is likely to be much easier to take up the healthy behaviours of WEST when people do indeed quit smoking and cut down on their alcohol consumption. For example, smoking may impact a person's ability to exercise with ease (see for example, Nagaya et al 2007; Papathanasiou et al 2007). Another example is that alcohol consumption not only contributes calories to a diet and weakens our resolve to avoid indulging in calorie-dense foods (Chandler 2012), but also we eat more (Hetherington et al 2001) and may increase our appetite both for fatty foods and for more alcohol (Johnson et al 2004; NHS 2014b). When was the last time anyone craved a carrot when hungover?

behaviours we can start today.

Therefore, instead of a deficit model which may feel restrictive and burdensome, the RSA proposes a positive model of good health. Below, each component is presented with its accompanying NHS guidelines. However, health behaviours are always part of a broader social and cultural pattern of living, which means that it may be helpful to consider the broader 'practice' of walking, eating, sleeping, or talking when trying to change our health-related behaviour. Where behavioural science offers theories for why we find it hard to engage with the guidelines for living healthily, these are presented. These theories are plausible, but should be tested to determine whether and to what extent they do contribute to undesirable actions (or lack of desirable actions), acting as 'behavioural hurdles' to healthy living.

Walking

"Sedentary lifestyles increase all causes of mortality, double the risk of cardiovascular diseases, diabetes, and obesity, and increase the risks of colon cancer, high blood pressure, osteoporosis, lipid disorders, depression and anxiety. According to WHO, 60 to 85 percent of people in the world–from both developed and developing countries – lead sedentary lifestyles, making it one of the more serious yet insufficiently addressed public health problems of our time."

WHO⁷

"We could prevent 37,000 deaths every year, just by taking a walk." **MacMillan**⁸

The Walking component of WEST represents exercise and generally staying active.

The NHS guidelines for physical activity are that adults should get at least 150 minutes per week of moderate exercise, such as walking, swimming, playing tennis, flat cycling, or even pushing a lawn mower. Alternatively, we can step up the intensity and go jogging, dancing, or cycling on hilly terrain for at least 75 minutes per week. The difference between moderate and vigorous is explained as: "If you're working at a moderate intensity is if you can still talk but you can't sing the words to a song... If you're working at [a vigorous] level, you won't be able to say more than a few words without pausing for a breath." We should complement this activity with some strength training at least two days per week. Lifting weights, working in the garden, yoga, and sit-ups all count. To

Research is mounting that prolonged periods of inactivity are detrimental to both physical and mental health. Some might say that 'sitting is the new smoking', referring to the magnitude of the health risks

- 6. Loss aversion is a behavioural science concept to describe that losses loom larger than gains; we are more motivated to avoid a loss than we are to seek a gain. Given the existence of loss aversion, the RSA proposes that when health tips are framed as a loss, this might be a contributing factor to why it can be hard to stick with them.
 - 7. WHO 2002.
 - 8. MacMillan nd.
 - 9. NHS 2015a.
 - 10. NHS 2015a; NHS 2015e; De Lange 2014.

associated with sitting for too long. A sedentary lifestyle has been linked to an increased risk of stroke, some cancers, depression, heart attack, bone loss, weight gain, and cognitive decline. When considering how much of our current lifestyles are spent sitting (commuting, studying for school, working in an office, sitting at the table to eat, sitting on the sofa watching TV), these consequences are frightening. Some schools and workplaces have replaced sitting desks with standing desks in a bid to curb the amount of time we spend seated. However, some studies conclude that while sitting isn't great, standing isn't much better — being sedentary is the problem. Whether sitting or standing, the important point is to keep moving frequently to regularly punctuate an otherwise sedentary day. The NHS recommends taking the stairs instead of the lift, pacing while on the phone, and walking over to colleagues' desks rather than calling or emailing them.

Spending time in nature has been found to improve skills like attention and memory, reduce anxiety, and improve empathy and wellbeing, and a view of greenery from hospital rooms has be found to speed up recovery time. ¹⁵ The health benefits of spending time outside in natural surroundings are widely recognised, and approaches that combine activity with green space – aptly called "green care" – are being trialled. ¹⁶ It could therefore be worth pairing the recommendation of 150 minutes of exercise with the recommendation to spend time in nature by re-routing our commute to include some walking or cycling through a park, or blocking out some time on the weekend to walk through the countryside.

Although any type of exercise is encouraged, there may be specific qualities to the activity of walking that make it a particularly nourishing form of exercise. Biomechanist Kate Bowman even calls walking "the defining movement of a human". ¹⁷ There are relatively few barriers to walking (it is free and most people are physically able to do it), it can easily be done outdoors in nature, and it still affords us the opportunity to talk and socialise.

The benefits of keeping active are not surprising, nor are the risks if we fail to stay moving. So why are we still sitting so much? Behavioural science points to a few reasons that our human nature, evolved slowly to accommodate a very different environment to the one we inhabit today, may be working against us by hindering our motivation to get off of our chairs and get active.

First, we may be living sedentary lives out of habit. Research found that "adults in the workplace may sit for long periods out of habit, expectations and 'necessity' rather than conscious intentions". Not only does being sedentary require much less physical effort than being active (by definition), but also, it requires less cognitive effort. That is, we generally have to plan our moderate and vigorous activity, for example planning on attending a dance class, but we do not need to plan our

- 11. Summarised by Rimmer (nd); WHO 2002; depression also shown in van Uffelen 2014
- 12. Eunjung Cha 2015; CBS 2015.
- 13. Proto 2015.
- 14. NHS 2014c.
- 15. See reviews in Spencer 2015a; Spencer 2015b; Spencer et al 2014; Ulrich 1984.
- 16. Hine et al 2011.
- 17. Quoted in Keating 2014.
- 18. Biddle 2011 p.7, citing deBruin et al 2009.

sedentary behaviour which is often done without thinking and out of habit. Habitual behaviour feels automatic, even mindless, and can be very efficient (spending mental energy to make each and every decision would be tiring). However, the automaticity of our habits can work against us if the habitual behaviour is something we'd like to change.

Could our sedentary behaviour also be linked to what behavioural scientists call an 'empathy gap'? Empathy gaps simply mean that we have a hard time predicting how we will feel in other situations; we are poor at forecasting our future moods. ¹⁹ When we are not exercising (which is most of the time for most of us), it might be hard to imagine that we will actually feel good after a hard workout or a brisk walk, and may therefore feel less inclined to get up and start moving. It is as if our 'pre-workout self' finds it hard to empathise with our virtuous 'post-workout self'.

It may also be that the recommendation of 150 minutes per week is not very motivating when phrased in that way. It sounds like a lot of time, and we don't often think of timeframes beyond an hour in units of minutes, making the recommendation seem more abstract. This matters because we are less likely to act on information that is abstract, because it seems psychologically distant from us.²⁰ A way around this could be to reframe the recommendations into something more concrete. For example, 150 minutes could be thought of in other ways, such as 2.5 hours per week, or ½ hour every weekday. By chunking the recommendation, it seems much easier to imagine how to achieve that goal, for example, by using a different bus stop, doing a lap around the neighbourhood on our lunch break, or attending an exercise class at the gym.

Understanding that these factors might be dampening our resolve to enjoy more exercise could be helpful for us to try to change our ways. For example, we can avoid triggers to habitual behaviour (if sitting on the sofa is the trigger to watch TV, we can try putting on our running shoes before we've even sat down). Or to increase empathy with our postworkout self, we can have a photo of a post-workout smile to remind us of how good we will feel.

Eating

There are so many different recommendations for what to eat and what not to eat. Open up a newspaper and it wouldn't be surprising to see a headline highlighting the risks associated with too much or too little of a given type of food. Research is ongoing, and the idea of what constitutes a 'perfect diet' will arguably change over time in response to that research. That being said, there are ways of thinking about how and what we eat (the 'practice' of eating) so that we not only don't feel deprived, but also feel even more nourished and as if we are *adding* to our diet. For example, we can add nutrients from vegetables, keep hydrated by adding more water, and we can add attention to our meals, changing the quality of the experience of eating. (An important caveat here is that consuming too many calories, too much salt, too much sugar, or too much saturated fats

^{19.} See for example Loewenstein 2005 or Wilson & Gilbert 2003.

^{20.} Trope & Liberman 2010; Rowson 2013.

is not in anyone's best interest.)21

The specific guidelines from the NHS are to eat "5-a-day" (at least five portions of a range of fruits and vegetables each day), and to drink at least 1.5 litres of non-sugared, non-alcoholic drinks. A good choice here is water. 22 Staying hydrated is important for physical health and for cognitive functions, such as short-term memory, attention, and other skills, as well as reduced fatigue and anxiety. 3

The intention here is that by adding fruit, vegetables, and certain fluids, some of the less healthy alternatives will be crowded out. In other words, hopefully the process of adding these items to an existing diet will lead to some of them *replacing* higher-calorie foods and drinks that we are currently having too much of, such as high-fat, high-sugar, or high-salt foods and sugary, fizzy drinks, because in the UK most people should be eating fewer calories than we are.²⁴

With the recommendation to add attention, the intention is different. Studies have found that often we eat as a secondary activity, in other words, we might eat in front of the TV, at our desks, or in the car. This is important because it means that we often eat 'mindlessly', without paying attention to the experience of tasting the food, feeling its texture, and noticing the sensation of satiating our hunger. We can therefore overeat in response to social norms or other cues such as plate size or food variety which suggest a 'normal' or 'reasonable' amount to eat. For example, bigger bowls or squatter glasses lead us to both serve more and to eat more, as does greater variety of foods – even if the variety is just in colour and not in taste (for example multi-coloured M&M'S).²⁵

Additionally, we tend to underestimate the amount of calories we actually eat, especially when food is labelled as healthier. ²⁶ This matters, because we might overcompensate by eating more. For example, a permitting spillover effect or 'moral licensing' has been found in people whereby after they exercise they tend to eat additional calories. ²⁷ In essence, because we feel good about a virtuous behaviour such as exercising or

- 21. NHS 2014a. Guidelines from the NHS and/or Public Health England are as follows. Guidelines for number of calories to consume are 2500 per day for men and 2000 per day for women, but the appropriate level will depend on how much energy is expended per day (NHS 2014d). Calories from sugar should make up no more than 5 percent of total calories consumed (PHE 2015). Saturated fat should be no more than 20g per day for women, or 30g per day for men (NHS 2015f). NHS recommends no more than 6g of salt per day in total, which is equivalent to 1 teaspoon (NHS 2014d; NHS 2015nd).
- 22. NHS 2014d; NHS 2015b. Guidelines for drinking range from a precise recommendation of 1.6 litres per day for women and 2 litres per day for men (NHS 2014d) to a more flexible heuristic: "Studies have tried to establish a recommended daily fluid intake, but it can vary depending on the individual and factors such as age, climate and physical activity. A good rule is to drink enough fluid so that you're not thirsty for long periods, and to steadily increase your fluid intake when exercising and during hot weather. Passing clear urine (wee) is a good sign that you're well hydrated." (NHS 2015b).
- 23. Adan 2012; Ganio et al 2001; Watson et al 2015. A recent study (Watson et al 2015) found that dehydration resulted in double the amount of errors in a driving simulation. However it should be noted that there are methodological limitations to the study, including small sample size (n=11), and an artificial scenario (NHS 2015g).
 - 24. NHS 2014e.
- 25. Uni Illinois 2004; Wansink 2004; Wansink 2006; Wansink, Just & Payne 2009; Wansink & Kahn 2004.
 - 26. Wansink, Just & Payne 2009.
- 27. Dolan & Galizzi 2014. When participants were given a relatively high financial incentive to exercise (10p per step for 2 minutes), they compensated by eating more calories at a buffet after the treadmill exercise.

eating a low-calorie meal, we may give ourselves license to indulge later on, sometimes so much that it cancels out the effects of the initial desired behaviour.

There seem to be two different ways to address our mindless eating. One is to identify the cues that are triggering our eating habits and redesign them so that we mindlessly eat less. Food psychologist Brian Wansink explains that if we cut more than 100 calories per day, we will probably notice the change and feel deprived. If we feel deprived, it is less likely that the change to diet will be sustained. His suggestion is to try to shave calories by just under that amount so that the change goes unnoticed, and we can 'mindlessly' lose weight. For example, one study found that using smaller 10-inch plates for dinner led to average monthly weight loss of nearly 2 lbs.²⁸

Another approach is to become more mindful and make deliberate efforts to enjoy the experience of eating. The more mindful we are when we eat and drink, the more likely we will be to respond to internal cues such as no longer being hungry or food no longer tasting as good, as opposed to simply responding to external cues like our plate being empty or the television show being over.²⁹ This approach also seems to address the point about deprivation, because it is unlikely we will feel deprived when we are more fully engaged in the experience of eating. The NHS provides some useful tips about how to bring mindfulness into the experience of eating in their *Mindful Eating* and *Changing Patterns* leaflets, available online.

Sleeping

"Getting sufficient sleep is not a luxury—it is a necessity—and should be thought of as a 'vital sign' of good health."

Center for Disease Control and Prevention30

"The way to a more productive, a more inspired, a more joyful life is getting enough sleep."

Arianna Huffington31

The guideline for adults is to get seven to nine hours of sleep per night, with some people functioning best at the lower end of the scale and others at the higher end.³² According to the NHS: "Simply put, you need enough to make you refreshed and able to function efficiently the next day... The number of hours depends completely on the individual."³³

Getting an adequate amount of good quality sleep is important for so many different reasons. There are direct health benefits³⁴ to sleep, including boosting immunity, balancing hormones, clearing toxins and repairing cells, and indirect health benefits. For example, sleep deprivation

- 28. Wansink 2006; Wansink Just & Payne 2009; APA 2011.
- 29. Wansink, Just & Payne 2009.
- 30. Center for Disease Control 2015.
- 31. Huffington 2010.
- 32. National Sleep Foundation 2015a, 2015b.
- 33. NHS 2015h.
- 34. Stickgold 2015; Foster 2015; Division Sleep Medicine (nd); Levitin 2014.

is associated with higher risk of obesity, perhaps due to changes in cravings for less healthy, starchy or sugary foods for extra energy.³⁵ Sleep also affects our cognitive functions by consolidating the experiences of the day, which helps us to sort information and make mental connections between seemingly disparate pieces of knowledge.³⁶ Sufficient sleep can prevent accidents and improve attention and mood.³⁷ Better sleep could even benefit our bank balance: one study found that more sleep was correlated with higher earnings.³⁸ After all, given the restorative quality of sleep and its physical and cognitive benefits, it is not surprising that we might perform better at work after a good night's rest.

As with the other components of WEST, when we look at the larger experience of sleep, beyond the time that our eyes are closed, we can begin to explore the rituals and language used around the practice of sleeping. Do we refer to sleep as 'recharging batteries' or 'crashing out', and does that influence whether we treat sleep as a luxury or a priority? What is our bedtime routine, and is it hindering our ability to doze off? Of course there are a host of issues beyond our control that might affect our ability to sleep well, including insomnia or other medical issues, feeling unsafe, loud noises from within or outside our home, having to look after a baby or young child, and other reasons.³⁹ Aside from these issues, there are still occasions when many of us would like to get more sleep but for some reason just don't seem to get to bed in time to clock in our needed eight or so hours. Why might that be? Considering the rituals around sleep, it seems that there may be a combination of environmental and behavioural hurdles to getting to sleep on time.

Our environment and lifestyles within it might be part of the reason we find it difficult to get to bed on time. Think of the pre-bedtime activities many people engage in: watching TV, checking email on a tablet, reading social media updates on a phone. Research shows that the light emanating from the screens, mimicking sunlight, is tricking our bodies into thinking that it is time to be awake by supressing our natural release of melatonin.⁴⁰

A slightly different point is that rather than the screen itself, what we are doing with these bright screens might be causing us to stay up later than we would like. We now have access to communication at any time of night, which in other ages would have been impossible or inappropriate. This **cognitive stimulation**, either through stress (think a request from the boss) or excitement (a social invitation), will keep us awake.⁴¹ Could it be that even just the potential for this type of communication is keeping us in suspense – we have a **fear of missing out** on some piece of news or coming to the social interaction late in the game?⁴²

- 35. NHS 2015c; Royal Society of Medicine 2015; Division Sleep Medicine (nd).
- 36. Levitin 2014; Marcu 2015.
- 37. Division Sleep Medicine (nd).
- 38. Summarised in eZonomics, 2015
- 39. Freakonomics 2015.
- 40. Figueiro et al 2011; Levitin 2014; Sutherland 2012. Note, however, that one study finds that communities without access to electricity follow similar sleep patterns to those living with screens, suggesting that screens alone might not be the only hindering factor. See Sample (2015) for a summary.
 - 41. Hatfield (nd).
 - 42. See Przybylski et al 2013 for more on FOMO.

Some of our natural human characteristics may also be to blame when we fail to get enough sleep. For example, **empathy gaps**, described in the Walking section, might play a part in keeping us awake at night. In other words, our late-night-self, when responding to emails or watching another episode of our favourite series, might not empathise with our sleep-deprived next-morning-self: we don't anticipate feeling as badly as we actually will when trying to perform well the next day at work or school.

Or, perhaps it is our tendency to be **optimistic and overconfident**⁴³ that delays us hitting the sack. We might be overconfident that we'll get everything done in time – finishing baking treats for the school fair, writing the client pitch, washing the dishes – to get to bed early, only to be disappointed.

Talking

"On the societal level, we must understand that health is not an individual outcome, but arises from social cohesion, community ties, and mutual support. ... We know all too well, from data too persuasive and too somber to be disputed, that emotional isolation kills."

Gabor Maté 44

The Talking component of WEST is not just an activity of the vocal chords, but a way of connecting with ourselves and others that creates a culture of health and wellbeing.

On one level, the recommendation is to check for symptoms and speak to friends, family, a doctor and/or a pharmacist if there are changes or something seems out of the ordinary. Speaking with others, whether loved ones or health care practitioners, about symptoms and worries can help swing the balance from cure and care to the more favourable prevention and early detection.⁴⁵

On another level, talking is the category that describes communicating and connecting with other people. A lack of meaningful connections, sometimes referred to as social isolation, may affect our immune systems⁴⁶ and is a risk factor for cardiac arrest and death.⁴⁷ Connecting to others is one of five evidence-based approaches to improve wellbeing, and as such it is recommended by the NHS.⁴⁸ More specifically, we should both deepen existing relationships with friends and family and broaden social connections with our community⁴⁹ as each type of bond provides benefits. "Strong social relationships are supportive, encouraging, and meaningful. Broader, more 'superficial' relationships are important for feelings of connectedness, familiarity and sense of self-worth associated with an individual's position in a community."⁵⁰ While current technology and social media apps might help provide breadth of connection, they rarely

- 43. Sharot 2012.
- 44. Maté 2015.
- 45. The NHS IAPT programme provides funded talking therapies upon referral.
- 46. NHS Choices 2015i.
- 47. Levitin 2014.
- 48. NHS 2014a; Nef (nd) for evidence; Parsfield 2015.
- 49. NHS 2013.
- 50. Nef (nd) p.6.

provide enough depth for our needs as social beings.51

It has also been found that practising gratitude can help improve wellbeing, potentially through its effect on increasing positive emotions.⁵² So when talking to our friends, family and colleagues, we can get added benefit by talking about what we are grateful for, as this is found to improve happiness and may have a knock-on effect of better health.

Given the benefits of checking for symptoms, speaking about changes and going for routine medical checks, why would we ever avoid doing it?⁵³ Theories from behavioural science suggest that there may be a few reasons, which are ripe for future testing.

Sometimes, we might prefer to avoid learning more information about our health and symptoms in case the information points to bad news. This is sometimes referred to as the 'ostrich effect' because we would prefer to stick our head in the sand, ignoring symptoms and changes while hoping for the best. Behavioural scientists define this effect as "avoiding exposing oneself to information that one fears will cause psychological discomfort". ⁵⁴ This may especially be the case when we have already received a little bit of negative or ambiguous information, whereas if the initial information is positive we would seek to confirm it with further information. ⁵⁵

It could be that we are embarrassed by the symptoms, ⁵⁶ but does that embarrassment outweigh the benefits of early detection? On balance, surely not. However, the role of **empathy gaps** might mean our today-self fails to recognise that we would be much happier to be subject to minor embarrassment today than suffer (potentially life-threatening) consequences of a delayed or missed diagnosis and the absence of an opportunity to take preventative measures. We tend to be **myopic**, placing more value on the present than on the future. This can work against us, because the embarrassment or fear of bad news is happening to us now, whereas the potential for illness can be mentally filed away into the 'later' bucket. Overall, we often are swayed to decisions that are short-term and emotional.⁵⁷

Our tendency to be **optimistic and overconfident** may also have a role to play. While on the one hand a high level of optimism may elicit more positive emotions and therefore improve our wellbeing, there are negative consequences of optimism too. We might skip routine check-ups or avoid mentioning a symptom because we simply believe "this would

- 51. Levitin 2014.
- 52. Emmons & McCullough 2003. In this study by Emmons & McCullough 2003 they found that gratitude led to fewer symptoms of physical illness and more time exercising (self-reported). However, in another study they did not find these effects. In both, they found that gratitude promotes positive emotions (and may even trigger an 'upward spiral' of pro-social behaviour which may benefit other people). This increase to positive emotions is important, because other work has found a link between positive emotions and physical health benefits such as lower cardiovascular disease and faster recovery time. See Tugade et al 2004.
- 53. Studies find that we do not check our symptoms enough. For example, men are less likely to see a healthcare practitioner with symptoms than women (Geoghegan 2009) and 57 percent of Scottish women don't do self-checks for breast cancer (*Herald Scotland* 2015).
 - 54. Kassel et al 2009 p.96.
 - 55. Karlsson et al 2009 for more on ostrich effect.
- 56. For example, one campaign stated "See your doctor straight away if, for the last three weeks, you've had blood in your poo or looser poo." Cancer Research UK.
- 57. Loewenstein 2005 for empathy gaps; for myopia see eg Kahneman & Tversky 1977; Thaler & Sunstein 2009; Ariely 2008.

never happen to me". This optimism leads us to generally underestimate the risk of us getting seriously ill and underestimate the negative consequences of such illnesses.⁵⁸

When it comes to general connections and socialising, Sherry Turkle, speaking at the RSA, suggests that the **ubiquity of portable devices** lends us the opportunity of "bailing out of our lives with each other". ⁵⁹ She is clear that digital communication is not an adequate substitute for face to face interactions: "Most of all, we need to remember – in between texts and e-mails and Facebook posts – to listen to one another, even to the boring bits, because it is often in unedited moments, moments in which we hesitate and stutter and go silent, that we reveal ourselves to one another." Text-based communication is not the same as face-to-face dialogue.

Why wouldn't we want to talk to others more frequently? Some research finds that we **erroneously believe that we will be happier keeping to ourselves**, and/or that others won't be interested in connecting with us. We might not *think* that we want to speak with others, but studies found that when people speak to their fellow commuters or engage in conversation with their coffee barista, they report higher wellbeing. Research also finds that, in fact, both extroverts and introverts report feeling happier on days with more social interactions, even if the interactions are with 'weak' ties (meaning they were not close connections; rather, they could be someone in the community or the person at the checkout till, for example).⁶¹

Even in the face of these potential behavioural hurdles, we should strive to engage in the talking recommendations to check for symptoms to facilitate early detection of illness and to socialise (off-line) to forge meaningful connections in our lives.

Bringing WEST together

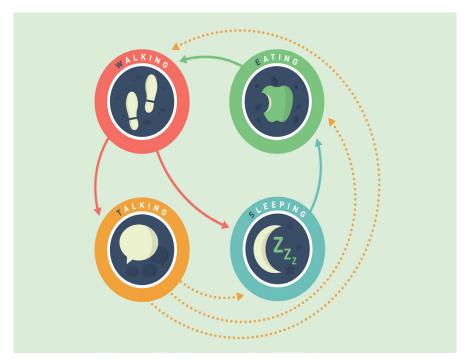
Taken together, the practices of walking and exercise, eating well, sleeping adequately, and talking - both talking about symptoms to facilitate early detection of illness and socialising to forge meaningful connections in our lives - create the foundations for healthy living. Although these practices are not an immunisation against future misfortune, they do help to reduce the risk of many chronic diseases, and as such they are important to work into our lifestyles. Fortunately, these activities are somewhat mutually reinforcing: for example, more exercise might improve sleep quality, better sleep might reduce cravings for unhealthy foods and unnecessary calories, avoiding unnecessary calories may help us to feel light and be active, increased activity improves mood which might make it easier to socialise and address health concerns – and so on in a virtuous cycle. This means that as we get on track with one component of WEST, it might be even easier to move forward with other components of it, even in light of the potential behavioural hurdles we face.

^{58.} Dunning et al 2004; Sharot 2012.

^{59.} Turkle 2011.

^{60.} Turkle 2012.

^{61.} Dunn & Norton 2014 summarise the following work: Commuters Epley & Schroeder 2014; Baristas Sandstrom & Dunn 2013; extroverts and introverts Sandstrom & Dunn 2014.



This virtuous spiral may be a useful way of thinking holistically about healthy living. For many of us, jumping over the first hurdle will be a welcome start which has the potential to trigger other health-creating behaviours. Can active health management ever go too far? Excessive concern can turn to obsession, where people can have exercise addiction, orthorexia nervosa ("obsession for healthy nutrition"), or health anxiety. These afflictions can be damaging in their own right, and may have indirect effects such as social isolation. It has been suggested that one of the signs of a detrimental obsession - as opposed to a healthy concern – is when the focus rests on only one component of health to the exclusion of the many other healthy behaviours. While obsessions are detrimental to health and should be addressed by a health professional, on the whole, many of us should be taking more care to nourish ourselves in the ways outlined and take a more active role in managing our health.

The next section explores some strategies for implementing these healthful behaviours of walking, eating, sleeping and talking.

^{62.} Kaminker 1998; Brytek-Matera 2012; Ullman 2011.

^{63.} Brytek-Matera 2012.

^{64.} Ullman 2011.

What can we do to encourage take up of these actions?

"One of the key challenges is to improve our knowledge of how to change such (unhealthy, sedentary) behaviours at a time of an environmental 'onslaught' that encourages and reinforces such behaviours."

Stuart Biddle65

Even with the most promising framing, maintaining a healthy lifestyle might still feel hard to do, because even if we have good intentions, we don't always follow through with them. A meta-analysis showed that in the domain of health, people only follow through and act upon their good intentions about half of the time. This dilemma, when what we should do isn't what we actually want to do right now, is aptly referred to by behavioural scientists as 'the want/should dilemma'.

Regarding the activities that promote healthy living, hopefully this dilemma won't always be the case, especially if we focus on the quality of these experiences and try to appreciate their value in keeping our bodies fit and healthy. But it's no stretch of the imagination to assume that there might be occasions when, for example, although we know we *should* take a walk around the park, what we want to do is stay dry inside curled up on the sofa. Or when although we know we *should* order the kale salad with steamed vegetables, the smell of burgers and fries makes us *want* to eat the unhealthy option. When it comes to getting enough sleep, although we know that to be on form at work tomorrow we *should* go to bed now, we *want* to watch that next episode of *Breaking Bad*. And although we know that we *should* talk with some friends or our doctor about this symptom, we *want* to ignore it in case it is bad news, and hope for the best instead.

It is important to point out here that 'wants' might be not be something that we consciously identify as wanting to do. Rather, it might be that we are calling upon emotions, associations, or gut reactions. In the behavioural science literature these two methods of thinking are referred to as System 2 (slow, deliberate, conscious) and System 1 (fast, automatic, gut reaction), and System 1 is usually in the driver's seat. 68 So, for example, we might not consciously think that we want to watch the 'mindless

- 65. Biddle 2011, p.9.
- 66. Gollwitzer & Sheeran 2006 citing Sheeran 2002.
- 67. Bazerman et al 1998; Milkman et al 2008; and see much of Katherine Milkman's other extensive work on the topic of want/should.
 - 68. Kahneman 2011.

drivel' television show, but the hook of the storyline or the association of watching TV as being 'down time' might be tempting us to stay seated on the sofa. Our 'wants' are often the path of least resistance where we prefer the activity that is physically, emotionally, or cognitively easiest.

It is not hard to see that the behavioural hurdles discussed earlier in relation to each of the WEST behaviours work in the 'wants' favour, amplifying the want/should dilemma. However, we shouldn't lose hope, because there is evidence that certain approaches may be helpful in shaping behaviour to engage in healthy living.

When WEST meets EAST

One way to strengthen the pull of a behaviour is to make it EAST: easy, attractive, social, or timely.⁶⁹ We can apply this to 'should' behaviours to make them, in a sense, more 'wantable'. There are various different approaches that serve to make a behaviour more (or less) easy, attractive, social, or timely, to encourage (or discourage) us to do it. A comprehensive strategy to encourage more health-creating behaviours might include a suite of tools including: implementing policy measures such as bans or pricing; redesigning products, services and systems to work with the grain of human nature rather than against it; and empowering people with strategies to help them stick with their own personal goals. Below, we briefly touch on the first two and explore the third tool more widely.

Financial incentives

Research is ongoing about the effectiveness of more traditional policy measures such as financial penalties through increasing taxes on undesirable behaviours. Questions arise about the effectiveness of changing behaviours, who these penalties target, and the politics and economics of trade. To For example, it appears that Denmark's 'fat tax' did not lead to the desired reduction in fat consumption. Instead, it has been argued that people simply shopped for their high-fat foods in neighbouring countries that were not subject to the tax, or shifted their purchases to less expensive stores or brands. This does not mean that we should not use financial incentives through taxes and minimum unit prices. It just means that this type of solution may have complex knock-on effects and to consider take longer to implement.

Designing products and spaces

Another approach is to design our environments in such a way as to work with our natural behavioural tendencies rather than against them. With increasing research from behavioural science into how people actually behave, we stand a greater chance of designing the products and services we use and the spaces we inhabit to make it 'easier' (physically and cognitively) to take certain health-creating behaviours. This approach is sometimes referred to as designing our choice architecture, or more familiarly as creating nudges.

Wansink, the food psychologist referenced in the Eating section, puts

- 69. Service et al 2014.
- 70. BBC 2015.
- 71. Snowdon 2014.

it simply: "For some, it may be easier to change their environment than to change their mind."⁷² However, it doesn't have to be an either/or scenario: even deliberate behaviour change can be made easier within an environment that is conducive to the desired new behaviours.

Some classic examples of redesigning our own environment is to put tempting foods in a less convenient location (think sweets in a tin, put nearly out of reach on top of the refrigerator) and to use smaller plates.⁷³ There are ways that other people can redesign our environments, too, such as creating forms so that the most desirable option is most prominent or already selected as a default (because we tend to go with the flow and stick to the default option).⁷⁴ In fact, the recent redesign of Oklahoma City illustrates that entire places can be redesigned so that it is easier and more attractive to walk, cycle, or exercise than to get into our car.⁷⁵

Helping ourselves stick to goals

There are also things that we can do to help ourselves. Because sometimes, in the absence of or even despite having the approaches above, it can still feel hard to do what we know is in our longer-term best interest. When the behavioural hurdles feel too strong and the want/should dilemma is proving too challenging, there are strategies which can be employed to help avoid buckling for the 'wants' and to encourage the 'shoulds'.

Commitment devices

Commitment devices are self-imposed ways of encouraging ourselves to achieve a certain goal. They work by either restricting our future choice, or by making a failure to commit really unattractive. Future choices could be restricted physically, such as by throwing away chocolates in the rubbish bin. We can make non-adherence to our goals feel even worse (and therefore potentially help us avoid falling off track) by imposing a financial or psychological cost on any defection from the stated commitment. Professor Ian Ayres dubs this latter approach "increasing the price of vice".77



- 72. Wansink, Just & Payne 2009 citing Wansink 2006.
- 73. Wansink, Just & Payne 2009; APA 2011.
- 74. Thaler & Sunstein 2009.
- 75. Corbett 2013; Birrell 2015.
- 76. For a summary see Spencer 2012.
- 77. Ayres 2010.

Commitment devices are particularly useful when we have inconsistent or competing internal preferences, such as when experiencing the want/ should dilemma. For example, in the morning our preference might be that after work we will go to the gym, but when the end of the work day approaches the desire is no longer there. We should put commitment devices in place as close to now and as far from the time of the activity as possible.

Depending on how we structure our commitment devices, we can enhance the ease or the attractiveness of the desired behaviour. For example, we can set a regular time to go jogging with a friend. That way the (psychological) price of not going jogging increases, because we don't want to flake out or let our friend down. A commitment device to help us get to bed on time could be to automatically set all devices (for example TV and Wi-Fi) to turn off at 11pm or some other set time, restricting our options of keeping-us-awake activities.

Temptation bundling

Temptation bundling is a form of a commitment device which serves to simultaneously increase the 'should' behaviours and cut down on the 'want' behaviours. In this case, we bundle (pair) one of our indulgent activities with one of our prudent activities so that we can only do the former when doing the latter. For example, research by Katherine Milkman and colleagues found that people went to the gym more often when their access to the next chapter of a suspenseful audiobook was restricted to the gym. The incentive to hear what happens next in *The Hunger Games* was strong enough to lure people to the treadmill. Another way to think about this is to make our 'should' activities also something that we 'want' to do.⁷⁸

'Should' activities are often those that have benefits that we only see in the longer-term. In a sense, temptation bundling brings forward the incentive to exercise (or eat, sleep, or talk) from the long-term into the present. Given our human tendency to be present-biased (myopic), it is no surprise that this approach has been successful.

One caveat to this approach is that we must be careful that the items we bundle won't cancel each other out. If losing weight is the goal, bundling a gym session with an audiobook would be fine – but bundling it with a doughnut wouldn't.



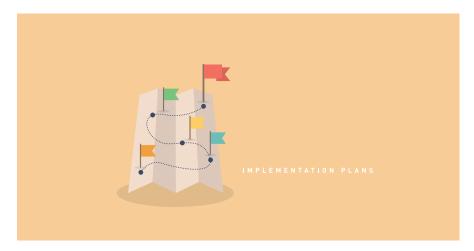
78. Spencer 2013.

Implementation plans

Research suggests that effective planning can help to bridge the intention-action gap, and has been shown to be helpful with regard to exercising.⁷⁹ In one study, telling people about the risks and determinants of cardiovascular disease did increase people's *intentions* to exercise, but they didn't actually increase their *activity level* unless the information was paired with a specific plan for doing that exercise.⁸⁰

Instead of stating non-specific goals such as to 'eat well', it may be more effective to create an implementation or if-then plan. To do this, we can articulate what the actions are that might lead to that goal, and tie each desired action to a trigger. ⁸¹ In practice this means that rather than having the good intention to 'get healthy' it may be more useful to state something like: "if the waiter offers dessert, then I will order a herbal tea" or "when I see Judy tomorrow at the cafe, before we arrange our next get-together I'll bring up my recent stomach aches".

These if-then implantation plans can be made more vivid by considering where we will be when the event will happen or how exactly we will do the behaviour, which might help the plan feel more concrete or might help us to anticipate – and correct for – any potential obstacles. Perhaps these plans are a way of helping us to think through whether we have not only the desire to carry out the intended behaviour, but also the capability and the opportunity to carry it out. By



- 79. Lippke et al 2004.
- 80. Milne et al 2004.
- 81. Gollwitzer & Sheeran 2006.
- 82. Nickerson & Rogers 2010.

^{83.} As far as we are aware, this idea has not been set out before in the academic literature in this way. This idea links the implementation intention plans with the COM-B model developed by Michie et al 2011 which explains the three components of behaviour as being capability, opportunity and motivation.

Conclusion: Converting sporadic changes into lifestyles

As we learn more and more about how to change behaviour from the field of behavioural science, we are faced with greater opportunities to improve people's health.

We know that changing behaviour can be difficult: it requires cognitive effort to override what we want to do or what feels automatic to do. So it will not be surprising if the initial changes to lifestyle feel effortful at first. However, the mutually-reinforcing nature of the WEST activities, and the potential for initial changes to eventually become habitual give us reason for hope. When a behaviour becomes habitual it can feel automatic, almost mindless, and being on auto-pilot has its advantages: it is easy. Therefore, building up the right habits can be the key to long-term lifestyle changes.

The want/should dilemma is ubiquitous. The strategies presented above may be one way to help swing the balance in favour of our 'should' behaviours. But another question to ask is whether perhaps we are simply failing to acknowledge how much our behaviour today impacts our health tomorrow – and whether if we did acknowledge this, perhaps what we would really 'want' isn't actually to get in the car rather than walking to our appointment, to eat unhealthy foods rather than nourishing meals, to reply to another email rather than getting the restorative benefits of sleep, or to keep to ourselves rather than reaching out to our doctor and loved ones.

So perhaps, in addition to being equipped with the tools offered by behavioural science to help us stick to our 'should' resolutions, we should also be reflecting on how these components of healthy living are indeed something that we might all 'want' to be doing too.

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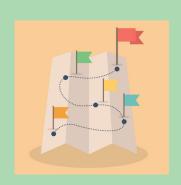
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