

Green behaviour change: HOT topics

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Climate change is a psychological problem. A rather stark statement maybe, but one which is, we think, defensible. To be sure, the mitigation of the effects of climate change poses very great technological challenges. However, the fact is that technologies that are widely available today are capable of making a very large dent in the carbon dioxide emissions that are thought to underlie the problem. To give just one of a plethora of possible examples: according to DEFRA, the average family car in the UK emits around 215g CO₂ per kilometre; by contrast, the most fuel-efficient family car currently available emits around 90g CO₂ per kilometre and, with the advent of plug-in hybrids over the next two years, this figure is likely to be further reduced to around 65g. For those (like the UK Government) seeking a 70-80 per cent cut in carbon emissions from private cars, the problem therefore is not a technological one but a behavioural one: how can we get people to adopt existing low-carbon technologies in their everyday lives?

The same considerations apply to businesses. We are engaged in a project called EASIER (Environmental Assistance to SMEs In the Eastern Region), which advises small businesses on ways in which they can reduce their carbon emissions. What has become clear from this engagement is that there are many opportunities for such businesses to make changes that substantially reduce both emissions and ongoing costs. Where these changes involve modest capital investment (as they often do), there are funds available, interest free, from organisations such as the Carbon Trust, a facility which contributes to a powerful case for change. Nonetheless, we frequently find senior managers reluctant to proceed. Again, the problem is neither technological nor financial: it is psychological.

In this chapter, we will give a brief outline of a framework that we are developing with regard to pro-environmental behaviour change, for people at home and at work. We will start by noting the relatively limited success that psychological/behavioural interventions have enjoyed in the past. As a consequence, we will suggest that the net be cast rather wider in the search for psychological techniques that might usefully be applied in this domain. For mnemonic reasons, if nothing else, we will focus our discussion around the **HOT** topics of the title: **habits**, **opportunities** and **thoughts**. As will be seen, for expository reasons the discussion doesn't necessarily deal with them strictly in this acronym-friendly order.

Psychological interventions in the service of the environment

While space considerations preclude a detailed review of the effectiveness of broadly psychological techniques in environmental domains such as energy use, recycling and transport, several such reviews have been conducted in recent years. For example, Abrahamse, Steg, Vlek and Rothengatter (2005) conducted a detailed review into psychological interventions aimed at reducing household energy consumption. They divided the interventions into antecedent interventions, such as supplying households with

information about energy-saving measures, and consequent interventions, such as offering feedback and/or rewards in response to certain behaviours.

Their conclusions were not overwhelmingly positive. There were relatively small beneficial effects of antecedent interventions: the provision of tailored information (i.e. information tailored to the specific circumstances of the target household), commitment and goal setting (i.e. asking households to commit to a relatively difficult energy-saving target), and modelling (i.e. giving worked examples of recommended behaviours), all had modest success. This success was not always maintained after a plausible follow-up period. Mass information campaigns were found to increase knowledge, and sometimes to change attitudes, but to have little effect on the adoption of specific energy-saving behaviours – a rather salutary message for Governments the world over. Of the consequent interventions, frequent feedback (particularly in a competitive context), and the provision of rewards, both showed moderate success. Once again, the effectiveness of these interventions was greatest during the active intervention itself and didn't always survive a post-intervention period.

Of all the interventions reviewed by Abrahamse et al. (2005), perhaps the most promising was the EcoTeam Programme (ETP), as evaluated in the Netherlands by Staats, Harland and Wilke (2004). ETP involves participants joining small groups of colleagues, neighbours and friends, and participating in meetings once a month. At these meetings, information is shared and feedback is given on both individual and group performance, the latter being assessed relative to that of other EcoTeams. It is not difficult to see that the ETP programme therefore takes advantage of all of the more successful interventions given above, most particularly setting up a context in which commitment is key, information is specific, and goals are set and reviewed in a comparative (and somewhat competitive) context. The evaluation by Staats et al. suggested that all targeted aspects of pro-environmental behaviour (including energy use, water use and waste) were substantially reduced both during the programme and at a two-year follow up. This result argues for a degree of eclecticism in the design of energy-reduction programmes: By drawing on a variety of interventions whose individual success is perhaps modest, the ETP appears to gain significant power to change behaviour immediately and over a sustained period. In the next section, we will recommend yet more eclecticism in the design of pro-environmental behaviour change programmes, drawing on techniques that have more often been applied in the therapeutic and other health-related domains.

Habits, opportunities, thoughts

It is difficult to deny that people are prone to habitual behaviour in the domain of energy-use, as in many other domains. Transport choice is perhaps the best researched of the areas in which habits are cited as a negative environmental factor: specifically, the near automatic favouring of the private car over public-transport alternatives is frequently attributed to the force of habit. One can imagine, too, that the unnecessary turning on (and leaving on) of lights or of heating systems, the disposal (rather than recycling) of waste, or the unnecessary use of water (e.g. when brushing one's teeth), would all be under the influence of habits, rather than being driven by more rational consideration. Of course, habits per se are not necessarily environmentally deleterious: one might equally be in the habit of cycling to work, turning off lights and dutifully recycling. Nonetheless, the

environmental problems with which we are currently faced suggest that these ‘good’ habits are not yet the norm. For this reason, a programme for pro-environmental behaviour change will need to take seriously the constraints that habits place on human action and on the possibilities of change.

A number of authors have looked at the habits relating to the environment (e.g. Dahlstrand & Biel, 1997; Davidov, 2007; Klöckner & Matthies, 2004; Verplanken, Aarts & van Knippenberg, 1997; Verplanken, Walker, Davis & Jurasek, 2008). Interestingly, habits in relation to travel-mode choice were the focus for all of these authors other than Dahlstrand and Biel. Those authors looked at the purchase of environmentally friendly detergents in relation to a ‘stepwise model of behaviour change’ in this domain. Their model is interesting. It proposed seven key steps in the development of an environmentally benign habit: activation (i.e. attending to the environment as a value); attending to present behaviour; consideration of alternative behaviours; planning new behaviour; testing new behaviour; evaluation of new behaviour; and establishment of a new habit. Alongside each of these steps, they postulated factors that either impede or promote progress at that point. So for the third step (the consideration of alternative behaviours), they identified negative beliefs about the alternatives as an impeding factor (see below), while the presence of ‘evident, existing alternatives’ was considered a promoting factor at this level. It is notable that the first two of Dahlstrand and Biel’s (1997) seven steps come under the general heading of attention. This accords with a crucial observation from our own practice with client businesses, namely, that many people do not attend to, and are hence not aware of, the energy that they are using in various aspects of their business. They are, in some sense, blind to the energy, and hence to the money, that they are wasting.

The phenomenon of ‘inattention blindness’ is well attested: people literally fail to see features of the visual environment to which they are not attending, even when these features are embarrassingly obvious to the same people once attention is drawn to them. Perhaps the most well-known popular demonstration of this phenomenon is the so-called ‘invisible gorilla’ test of Simons and Chabris (1999). In this test, participants are asked to watch a video showing two teams of three people (one team dressed in white, the other black), each passing a basketball among them. To ensure that participants attend closely, they are asked to count the number of passes completed by the team in white. Under these conditions, a majority of participants are unable to report the appearance of a person dressed as a gorilla as they walk across the field of view, even as they pause in centre-screen in a melodramatic beating of the chest.

While less engaging than a person in a gorilla costume, the ways in which our clients (among others) use unnecessary amounts energy and, hence, spend unnecessary money, are no less invisible to the clients themselves, and no less obvious to the experts performing energy audits. Of course, the analogy is not complete – the ‘blindness’ of our clients is more conceptual than perceptual, and has a good deal to do with crystallised knowledge rather than fluid processing. Nonetheless, a key first step in any intervention involves encouraging clients to pay active attention to aspects of their energy performance and to the details of those cost-effective alternatives that are available to them. It is this change in attentional set, and this expansion is situation-specific knowledge, that we capture in the Opportunities component of our HOT topics.

Interestingly, the ability to notice and act upon opportunities in the personal and business environment has been related, outside the laboratory, to such apparently capricious properties as luck. In a series of experiments, using participants who rated themselves as either lucky or unlucky, my colleague Richard Wiseman showed that lucky people were much more likely to spot potentially beneficial situations in their environment and, moreover, they were more likely to act on those situations to secure a potential advantage. In one experiment, participants were asked to flick through a newspaper and to count the number of photographs. At various points in the newspaper, the experimenters had placed half-page adverts proclaiming, in large-print, messages such as ‘STOP COUNTING: THERE ARE 52 PHOTOGRAPHS IN HERE’, or even ‘WIN £100 BY TELLING THE EXPERIMENTER YOU HAVE SEEN THIS’. The ‘unlucky’ people were much less likely to spot the potentially beneficial messages than were their ‘lucky’ colleagues, strongly suggesting that good luck is not always the random blessing of folklore, but is often attributable to an attentional and dispositional stance. There is, of course, a sense in which this is paradoxical: those participants who focussed most closely on the task in hand (i.e. counting the photographs – ostensibly a good thing), were precisely those who missed the opportunities. In the case of our client businesses, sometimes a too-close attention to their core business can mask opportunities for cost (and emission) savings.

In his work with lucky (and successful) people, Wiseman also noted their propensity to think differently about situations, seeing opportunities where others saw none. For example, an unlucky person who broke their leg might think ‘Typical. Bad things always happen to me. I’ll be stuck at home for weeks.’ By contrast, for a lucky person, the same misfortune might be accompanied by the thought ‘Oh well. At least I’ll have plenty of time to write that novel I’d always planned.’ This is, perhaps, a trite example, but it illustrates a critical point relating to the third of our HOT Topics, namely Thoughts: the Thoughts that one has can have a very significant effect on one’s subsequent behaviour. More particularly, different thoughts can act as either impeters or promoters of pro-environment behaviour change, a fact acknowledged explicitly in the stepwise framework of Dahlstrand and Biel (1997). We will discuss thoughts in the next section.

Negative environmental thoughts

In this section about Thoughts, we would like to expand the discussion to include a technique that is most often applied in clinical or counselling contexts, namely Cognitive Behavioural Therapy (CBT). Specifically, we will acknowledge and deal with the potential for negative environmental thoughts to act as a potential block to pro-environmental behaviour change.

CBT is the name given to a class of talking therapies that is, in the UK, in the front line of choices for clinical and subclinical disorders such as depression and anxiety. It is not possible to give a detailed account of the theory and practice of CBT here, but some key points will be instructive with regard to behaviour change more widely. The fundamental observation underlying the CBT approach is often summarised using a quote from the ancient Greek philosopher Epictetus, usually translated as, ‘Men [sic] are not disturbed by things, but by the view that they take of them.’ To paraphrase: it is not events in the world that directly and ineluctably cause emotional or other mental disturbance, rather it is the thoughts/beliefs that an individual has about those events that intervene between the

events and the later feelings, and play a causal role in affecting the latter. Although it is often misconstrued as attributing blame to the client for bringing about their own problems by ‘thinking wrong’, this is a fundamentally an optimistic message. It is optimistic in the following sense: if one genuinely thought that there was a direct (unmediated) causal connection between events in the world and emotional consequences, one could only change those emotional consequences by changing the way the world is. In many circumstances, the ability to change events in the world is simply not a viable option: a counsel of despair. If one accepts, however, that negative emotional consequences are affected by the thoughts and beliefs that one has about events, then one has the ability to modify those emotional consequences by changing the thoughts and beliefs. In many circumstances, this is much more tractable than altering the events themselves.

In CBT, particularly for disorders of depression or anxiety, thoughts and beliefs are categorised as being at three levels: negative automatic thoughts (NATs); negative core beliefs; and nonadaptive rules for living. Very briefly, negative automatic thoughts are those negative thoughts that are held to flood the mind at times of strain or challenge – they are automatic, in the sense that they come to mind rapidly and unbidden, and they are typically described as ‘irrational’ in one of a variety of ways. For example, a thought can be irrational because it exhibits overly black-and-white reasoning, or because it ‘catastrophises’ a situation, frequently both. To give an example, someone who is socially anxious may respond to a small mistake in a social situation with the NAT, ‘Oh God. That was a total disaster. Those people must think that I’m a complete idiot!’. So a minor slip has been characterised as a ‘total disaster’, and other people’s assessment is assumed to be that one is a ‘complete idiot’ (this type of mindreading is another characteristic feature of NATs). As they flood the mind, these NATs are thought to awake core negative beliefs (e.g. ‘I am an absolute failure’) that have been a long time in gestation and are sometimes described as ‘light sleepers’, ready to be activated at the slightest provocation. Finally, to avoid these NATS and their stirring of the aversive core beliefs, people are supposed to build around them a network of rules for living that minimises the unpleasantness that results. So the socially anxious person who subscribes to these core beliefs and is prone to these NATs, simply chooses to organise their life so as to minimise the negative affect. To be specific, they might develop the rule ‘If I don’t go out, then I won’t experience this unpleasantness’. So they stay indoors. Chances are, they become socially phobic: they develop around them what they consider a ‘comfort zone’, but which other people can clearly see is a highly constrained and inflexible space, that is, a discomfort zone.

So how does this relate to pro-environmental change? While we do not want to stretch the analogy too far, a couple of examples drawn from direct experience should illustrate the point.

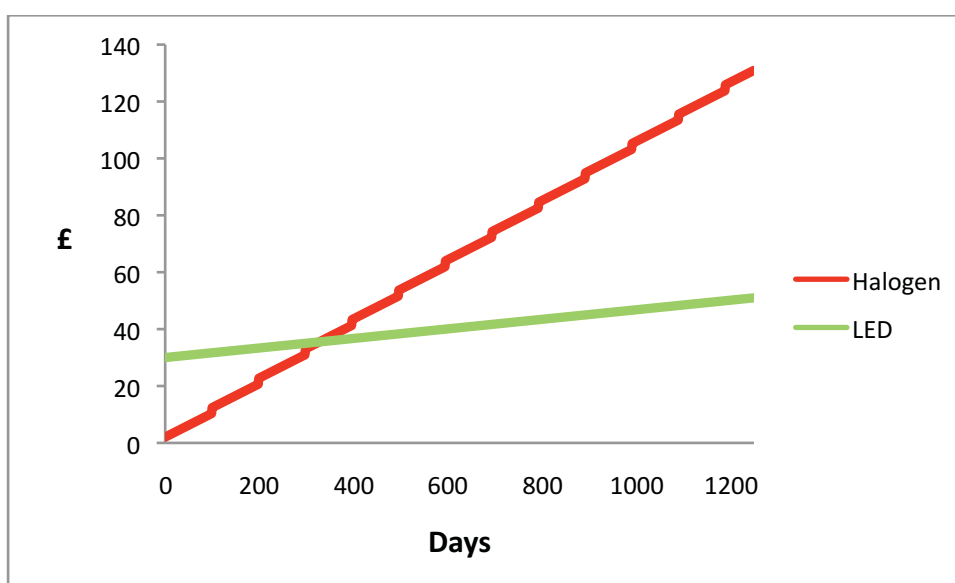
Let us suppose that one of our clients is a hotel business which uses a large number of halogen downlighters (the small spotlights that are often used in corridors and common areas). Such downlighters are typically rated at a power consumption of 50W, though 35W ‘energy saving’ versions are also available. In many hotels, a significant proportion of such lights will be on for approaching 24 hours a day, and so together they represent significant energy consumption and, hence, significant cost and significant CO₂ emissions. Let us further suppose that the hotel manager has recently instituted a policy of switching the 50W versions to 35W as the old bulbs fail. Although they are a little more expensive at £2

each rather than £1.50, and they are a little dimmer, the manager has been vaguely convinced that the hotel will save money in the long run. Finally, let us assume that, notwithstanding this minor change in purchasing policy, the manager has not been disabused of the deeply held suspicion that eco-friendly tends to equate with expensive.

While this deeply held suspicion is not directly identifiable with the sorts of ‘light sleeper’ core beliefs that a clinical patient might present in a CBT context, one can perhaps imagine that it will indeed be awoken by a proposal, from an energy auditor, to switch all the halogen bulbs to new LED bulbs, at a cost of £30 a piece! The negative automatic thoughts (let us call them Negative Environmental Thoughts – NETs – in deference to another handy acronym) come flooding in: ‘£30 pounds each! That’s ridiculously expensive. Even if we had the money – which we don’t – the group manager would never approve it. Anyway, I’ve already done my bit by moving to the 35W jobs. We’ll stick to what we know, thanks!’ A caricature, perhaps, but in our experience one that is not too wide of the mark. And, as it happens, a paradigmatic example of someone who is trapped in an environmental (and financial) discomfort zone – someone, so to speak, caught in the NETs.

How can we, the environmental therapists as it were, help the hotel manager do the environmentally friendly, and financially astute, thing. Well, first we have to establish some facts about the LED bulbs. They do indeed cost £30, a price which, from a certain perspective, does seem rather high. (Actually, in this fast moving world, the cost is now down below £20, but let us stick here with the ‘harder sell’ with which we were presented at the time.) What other perspective might we offer? The key is to note three things: first that the LED bulb consumes around 7W of electrical power as contrasted with the 35W of even the so-called ‘energy saving’ halogen bulb; second, that the LED bulb has an expected life of 30,000 hours (with a three-year warranty), as opposed to the 2,000 hours for the halogen; third, that the light quality of the two bulbs is approximately equivalent. Armed with these facts we can plot the cumulative cost of the two types of bulb, assuming that each is on for 20 hours a day, 365 days a year, and that electricity costs 10p/kWh. 0

Figure 1: The cumulative cost of a 35W Halogen vs 7W LED bulb



The comparative cost of the bulbs are shown in Figure 1. The regular kinks in the halogen line represent the replacement cost, as each bulb lasts around 100 days. (Unrealistically, no additional cost is assumed for the work involved in changing the bulbs, a cost that, if taken into account, would only strengthen the case for change.) The intercept of the LED line represents the £30 initial cost, while the gradients of each line represent the cost implications of the differing power consumptions. What should be clear is that at around day 330, the cumulative cost of the ‘energy saving’ halogen bulbs exceeds that of the LED bulb. The investment in an LED bulb pays for itself in something less than a year. This 330-day payback period means that the investment in LED bulbs is equivalent to doubling your money in 660 days, in turn equivalent to getting tax-free, compounded interest at the bank at an interest rate of 40 per cent. Over the three-year warranty period of the LED bulb, each bulb saves £67, that is, a saving of £22 per bulb per year, or over £1,000 per year in a (far from atypical) corridor containing 50 such bulbs.

So Epictetus had a point. By adopting a different perspective (in this case, towards what it means to be expensive), our hotel manager might come to a different conclusion from that embodied by their initial (automatic) assessment. When they learn that the capital costs of the bulb replacement programme can be met by an interest-free loan from the Carbon Trust, the case virtually makes itself: essentially, someone will lend them money at zero rate of interest, for them to invest at a 40 per cent equivalent return! At the risk of labouring the point (and an acronym), let us unpick our manager’s NETs: First, £30 doesn’t look ridiculously expensive any more – in fact, it looks like an unmissable investment opportunity; second, there is no need to have the money upfront, since it is available as an interest-free loan from the Carbon Trust; third, that bit of mind-reading (‘The group manager would never approve it’) seems unlikely to be clairvoyant unless, of course, the group manager is also NET-prone; fourth, the black-and-white thinking embodied by the bald assertion that ‘I’ve done my bit’ (by moving to what is a very mildly energy-saving alternative) is now rather less convincing than it might be; and, finally, the assumed comfort zone (‘We’ll stick to what we know, thanks!’) has now been exposed as the discomfort zone that it truly is. As a last resort, the manager might retreat to an appeal not to change those bulbs that have only recently been upgraded from 50W to 35W (‘I only put them in last week!’) – a classic example of what decision theorists call a ‘sunk-cost fallacy’, another form of cognitive distortion. An LED-bulb payback period of 330 days is entirely independent of when the previous halogens were installed. Delaying the switch would only be ‘throwing good money after bad’. Better get on with it.

A second, and briefer, example will, we hope, show that NETs can be implicated in a refusal to take environmental problems seriously in the first place. How often has one heard something like, ‘It doesn’t matter what I do – the Chinese are building two power stations a week!’, used as a reason for failure to take pro-environmental action? We have no idea whether this purported fact is even true, but let us suppose that it is. This is a classic example of a NET, triggering the deeply held belief that we are all doomed: there’s nothing we can do and, what is more, it’s someone else’s fault. What alternative perspective might we encourage? Pointing out that China has recently become the world’s largest emitter of carbon dioxide might not seem to be an obvious first gambit. Nonetheless, this statement conceals a crucial factor: the population of China is approximately 1.3 billion people, over four times that of the USA, the previous largest emitter. In other words, the per capita carbon emissions of the Chinese people are around a quarter of those of the

average American (and a third of that of the average Briton). The failure to acknowledge this fact is another common feature of corrupted decision-making, in this case known as ‘base-rate neglect’. So a legitimate reconstrual of this particularly damaging NET might encourage the originator to agree to set (as a target) the reduction of their own personal carbon emissions to those of the average Chinese person. Were they to achieve this, they would have met the UK Government’s carbon-reduction target for around the year 2040. A different perspective indeed.

This last NET is illustrative of a particular feature of negative thoughts, namely that it doesn’t take many, indeed sometimes only one, to block entirely a change in behaviour. There is a fearful asymmetry here: a large number of reasons for change can be negated by a single negative thought, even if that negative thought represents a cognitively distorted perspective on the world. For this reason, close attention to Thoughts, the third of our HOT topics, is likely to be a necessary component of a pro-environmental psychology.

Real behaviour change

We are not alone in seeking to apply the techniques of CBT beyond the therapeutic domain and into business contexts. Indeed, in recent years there has been a development of frameworks for so-called Cognitive Behavioural Coaching (CBC). For example, Palmer (2007) developed such a framework that he called PRACTICE, each of the letters in the acronym representing a stage in CBC-style problem-focussed approach: Problem identification; developing Realistic goals; generating Alternative solutions; Considering the consequences of each; Targeting feasible solutions; Implementing Chosen solutions; and Evaluation. What is striking about this list is how similar it is to the specifically environmentally oriented stepwise model of Dahlstrand and Biel (1997) described above. This confluence is encouraging, because it situates pro-environmental behaviour change in a more generic framework, albeit one on which it has not, until now, substantially drawn. To recap, Dahlstrand and Biel’s model was a model of ‘behavioural change towards a pro-environmental habit’. Up until now, we have emphasised the initial steps in modifying a client’s attentional stance (Opportunities) and in encouraging a different perspective on negative or unhelpful Thoughts. While these steps are necessary, in this last section we acknowledge that they are unlikely to be sufficient to ensure that behaviour change accrues.

Among many practitioners of what was once called Cognitive Therapy, there is now an acceptance that cognitive changes are not enough by themselves to secure a behavioural change, particularly when the prior (problematic) behaviour has acquired the status of a habit (or a ‘rule for living’). For this reason, practitioners began drawing upon the techniques of Behaviour Therapy, techniques which themselves had been heavily influenced by animal learning theory. Cognitive Behavioural Therapy (in various flavours, including Beck’s classical CBT, Ellis’s Rational Emotive Behaviour Therapy and Lazarus’s Multimodal Therapy) emerged. A key observation was that deep (sometimes called ‘gut level’) acceptance of the benefits of change could only be properly achieved by encouraging the client to engage in a series of small-scale behavioural experiments. The results of these experiments were then fed back in such a way as to assist in the further breaking down of negative patterns of behaviour, including negative patterns of thought. To develop the example given above, a person with social phobia, confined to their home,

might be encouraged to accompany the therapist to the front gate of the garden, notwithstanding their possibly dire predictions of what might happen as a result. On learning that the expected disaster failed to occur (note: if the client's thinking is genuinely disordered then the therapist relies on the fact that the predicted disaster is indeed highly unlikely), the client is able to modify their cognitions at a rather deeper level than they could simply by sitting in the home and thinking, however rationally, about the matter. The client is, therefore, facilitated in acting like a scientist, with themselves and their beliefs and dispositions as the object of study. Once the garden gate has been conquered, the next experiment might involve a trip to the end of the street, then to the local shop, and so on.

Therefore the notion that clients progress in large measure by doing rather than thinking, and by observing that their predictions (thoughts) about the consequences of such action are faulty, is properly acknowledged in the cognitive behavioural therapies. It is also explicitly acknowledged in both the problem-focussed model of Palmer (2007) and the stepwise model of Dahlstrand and Biel (1997): both subsume the planning, testing and evaluation of new behaviours. Another framework in which this insight (i.e. that progress relies on, and indeed comprises, 'doing something different') is the Framework for Internal Transformation (FIT; Fletcher & Stead, 2000).

FIT comprises a collection of psychometrically validated tools (principally, the FIT Profiler) and a variety of behavioural interventions (principally, a Do Something Different, DSD, programme), all targeted at identifying and moderating a participant's degree of behavioural flexibility. Recent practical applications have been in the domain of weight loss (Fletcher, Hanson, Pine & Page, in press; Fletcher, Page, & Pine, 2007; Page & Fletcher, 2008), though the approach is, by its nature, generic. The FIT Profiler measures behaviour on 15 behavioural dimensions, specifically measuring the degree of flexibility in each. It also measures five 'Inner Constancies' (Awareness, Balance, Conscience, Fearlessness and Self-Responsibility), in an acknowledgement that thinking-style too can be prone to inflexibility and habit. Unlike other personality measures, the FIT Profiler emphasises the idea that for maximum effectiveness one would not want to be located at any given point along a particular dimension. For example, taking an Introversion-Extraversion dimension, it is clear that there will be some times at which one might best behave in an introverted fashion (e.g. a funeral), and some times when extraverted behaviour would be appropriate (e.g. a party). The FIT Profiler measures such behavioural flexibility and directs its development.

As noted above, the primary FIT intervention is a Do Something Different (DSD) programme. Taking weight-loss as an example, this programme invites participants to engage in a programme of doing something different every day for a month (with two additional tasks each week). Across the four weeks of the intervention, the focus changes from new behaviours (weeks 1-2), to new ways of interacting with people (week 3) and behaviours relating to the Constancies (week 4). Importantly, these DSD tasks are not themselves food or exercise related, but might be as simple as writing to an old friend, going to the theatre, or shopping at a different shop. The driving credo is that habits are not independent one from another, but exist in a mutually supporting network of habit-webs (cf. Neal, Wood & Quinn, 2006). If one comes home at the same time every day, having shopped in the same shops, to watch the same TV programmes, etc., then it is very

difficult simply to change, in isolation, the amount, or nature, of what one eats. By breaking down the distal habits that form the habit-web in which the proximal eating and exercise habits reside, the DSD programme seeks to enhance generic flexibility. It seeks to put people into a (psychological) place in which they can change anything about themselves, before attempting to change a particular habit. As such, it comprises behavioural experiment at a generic level, designed to reinforce the belief that flexibility and change are a defining feature of a true comfort zone.

Although we have only been able to give a very brief description of the FIT tools and FIT interventions, their generic nature encourages us that they might usefully be applied in other domains, notably in regard to pro-environmental behaviour change. Theoretical work concerning habits and the ‘habit-goal interface’ (Wood & Neal, 2007), identifies overlearned context-to-behaviour associations as crucial to the maintenance of habitual behaviour. By establishing new contexts, a DSD programme can prevent this automatic activation, and can sow the seed of effective change. For this reason, we are actively engaged in adapting FIT to the pro-environmental cause.

Conclusions

In this paper, we have argued for a degree of eclecticism in psychological approaches to pro-environmental behaviour change. Taking inspiration from areas beyond the more frequently applied (and not obviously successful) single-track interventions, we have argued for a broader framework organised around the mnemonically useful HOT topics: Habits, Opportunities and Thoughts. We propose that the field will benefit from additional insights from cognitive psychology (in relation to attentional stance and rational decision making), cognitive behavioural therapies (in relation to NETs and the power of behavioural experiments), and from FIT science (in relation to its emphasis on enabling generic behavioural flexibility as an engine of change). Our current work involves bringing these insights together in a practical programme for businesses and individuals alike.

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