

## 8.1 *A response to Dolan*

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### Introduction

Paul Dolan argues that there are two broad approaches to behavioural change: changing *minds* and changing *contexts*. He argues that while the former approach relies more heavily on conscious and reasoned processes, the latter predominantly deals with the subconscious, automated system of the human brain and attempts to facilitate change by altering the ‘environmental context’ in which people make decisions. In particular, he notes that the latter approach (i.e. changing contexts) has received relatively little attention in the past and that, by focusing on altering people’s choice environment, ‘mindspace’ represents a promising framework for improving the public’s financial capabilities. In explaining the rationale behind the development and application of the mindspace framework, he states: ‘new models of behaviour change are needed in general, and in consumer finance in particular, as existing theories and methods leave a substantial proportion of the variance in behaviour, beyond the effect of rational (conscious) intentions, to be explained’ (Dolan, this volume).

It is important to understand that the first part of Dolan’s argument does not (or should not) flow from the latter. While new models of behavioural change are undoubtedly needed, the existing theories and methods that Dolan seems to be referring to are (unlike mindspace) not meant to prescribe behavioural change; rather, they are concerned with explaining proportional variance in behaviour. The fact that existing models are not able to account for a larger range of variance in the public’s financial behaviour undoubtedly calls for new models and methods that potentially can, but this is not what mindspace brings to the table: *explaining* and *changing* behaviour are two related, but categorically different things. Second, there is a good amount of research that looks beyond the effect of ‘conscious intentions’ that Dolan did not explicitly cover. In this response, I would like to take a step back and

shed some light on not only the difference but also (perhaps more importantly) the interrelation between *models of behaviour* and *theories of change* and how this distinction helps to illuminate the potential and role of mindscape in changing the public's financial behaviour.

### Getting the distinctions right

In behavioural science, a distinction is made between *models of behaviour* and *theories of change*. While models of behaviour aid in understanding specific behaviours by identifying the underlying factors that determine and influence them, theories of change show how behaviours can be changed and/or change over time (Darnton, 2008). While *theories of change* more commonly depict generic processes, for the most part, models of behaviour are diagnostic, designed to explain the determinant psychological factors and the relative importance of those factors in predicting and explaining a given behaviour. In addition, change theory is more pragmatic and aims to support interventions in either changing existing or encouraging the adoption of new behaviours.

Yet, while there is no doubt that models of behaviour and theories of change have distinct purposes, they are also highly complementary. In fact, successfully trying to change any given behaviour involves a thorough understanding of all of the factors that determine and influence the behaviour under investigation. Hence it is important for evaluators to not only look at behavioural outcomes, because it is from studying the psychological determinants of behaviour that we gain understanding of why certain interventions were successful or not (GCN, 2009; Steg and Vlek, 2009) and where and how to try out future strategies for changing behaviour (Hamid and Cheng, 1995). Indeed, in an overview of how applied *behavioural* models can assist consumer finance, Xiao (2008) mentions that in order to help change undesirable financial behaviours, it is pivotal to first gain a better understanding of how such financial behaviours are formed in the first place.

### Moving beyond false dichotomies

As Dolan highlights, the traditional focus of public policy has been on using (persuasive) information to change people's *cognitions*. This preoccupation with 'conscious change' undoubtedly grew out of early knowledge–attitude–behaviour models, followed by expectancy–value

frameworks such as the ‘theory of reasoned action’ (Fishbein and Ajzen, 1975) and its successor the ‘theory of planned behaviour’ (Ajzen, 1991). While some of these traditional behavioural models, at their core, do assume that human behaviour is goal-directed (i.e. ‘conscious’), the application of existing and the quantity, scope and orientation of new models has shifted to include a wide range of behavioural determinants, including emotions, habits, norms and even environmental/contextual factors (e.g. see Schwartz, 1977; Stern et al., 1999; Triandis, 1977; van der Linden, 2011), investigating virtually all types of behaviour (including consumer finance). For example, recent research points to the increasing role of moral norms in explaining individual investment behaviour (e.g. Hofmann, Hoelzl, and Kirchler and 2008). A recent model presented by Shim et al. (2009) explains how environmental factors such as parental guiding, work and high school education influence the financial habits, attitudes and behaviours adopted by young adults. Research also shows that women tend to worry more about financial risks and accordingly, Sethi-Iyengar et al. (2004) show that women enrol in voluntary pension plans in greater numbers and make larger contributions than men.

The general idea is that the discussion should not revolve around changing minds (i.e. conscious change) or changing contexts (i.e. sub-conscious change). In fact, the practical value of making distinctions between ‘reflective, conscious’ and ‘automated, subconscious’ parts of the brain is fairly limited, as most real-life behaviour is the result of careful integration of both processes (e.g. Camerer et al., 2005). As neuroscientist Damasio (1994, 1999) has pointed out in a series of clinical cases, these two processes operate in parallel and continuously interact with each other. For example, people are unable to make rational decisions without the presence of subtle, instinctive emotional cues. Similarly, the analytical processing of scientific information can elicit strong emotions. In other words, the traditional notion of two separate functional systems (emotion versus cognition) is no longer scientifically defensible (Ochsner and Phelps, 2007).

### **The role of mindspace**

‘There has been a recent accumulation of evidence, particularly in behavioural economics, but also in social and cognitive psychology, that human decisions are very susceptible to various subtle changes in the environment’ (Dolan, this volume).

Dolan points out a crucial and valid point here: human decisions are strongly influenced by environmental conditions and *mindspace* goes a long way towards providing a framework that taps into these 'contextual factors'. However, behavioural change frameworks such as *'nudge'* and *'mindspace'* essentially assume that the government should act as a 'teacher' and steer citizens down the path that is most beneficial to them and society as a whole. By slightly altering people's choice environment, the cost of behavioural change is essentially minimized. Yet, not all researchers agree with this approach to behavioural change. For example, a concept known as *'think'* strategies relies on the notion that individuals can step away from day-to-day life and reflect on a wide range of public policy choices. It assumes that people are *'knowledge hungry'*, *'learn to process new information'* and reach *'new heights of reflection'* (John et al., 2011). Thus, 'think' requires active deliberation and assumes that individuals would want to engage in (public) debates about important (financial) issues.

While both approaches have their merits, it is not unreasonable to assume that on their own, both 'think' and 'mindspace' are perhaps on equally unrealistic ends of the behaviour spectrum as human behaviour is neither fully deliberative, nor fully automatic; people are neither completely autonomous nor entirely social (Jackson, 2005) and so attempting to focus solely on changing one aspect of behaviour at best, under-appreciates many other important determinants. Hence, a combination of various types of interventions is likely to be preferable, a standpoint that Dolan also seems to agree with.

While different in their specific focus, *nudge* (Thaler and Sunstein, 2008), *think* (John et al., 2011) and *mindspace* (Dolan et al., 2012) can all be considered *theories of change* and that is exactly where their contribution lies. Models of behaviour do not just focus on cognitions or attitudes; in fact, regardless of whether they focus on norms, emotions, habits or conscious intentions, they add to the empirical evidence base from which change-interventions can draw. For example, an increasing body of research is pointing out that a substantial amount of variance in individual financial risk-taking behaviour actually has a genetic basis (Kuhnen and Chiao, 2009). Applied models that deal with the behavioural determinants of consumer finance provide policy-makers and researchers with more information on what factors drive the behaviour under investigation. Yet the fact that some individuals have a genetic predisposition towards more financial risk taking does

not mean that these individuals will also take more risk, as the effect of genetic predispositions on behaviour is mediated (or mitigated) through environmental influences. To illustrate, individuals with the so-called ‘warrior’ gene (i.e. a predisposition for violent behaviour) will generally not become violent unless the individual is exposed to an environment that would be conducive to eliciting such behaviour (Caspi et al., 2002). In the same way, individuals who are prone to financial risk taking might in fact not do so when the environment stimulates them to do the opposite (i.e. save money). Hence, here is where *theories of change*, such as *mindspace*, can prove potentially useful, for example, by designing a choice environment that discourages people from taking financial risks.

## Conclusions

The mindspace framework presented by Dolan et al. (2012) fills an important gap in terms of much-needed behavioural change strategies that look at how to provide an environment that is more conducive to our physical, mental as well as financial well-being. Yet, while the adopted mindspace framework builds on relatively broad and dispersed research on human behaviour, future research could focus more on strengthening the connection between findings put forth by specific behavioural models and how theories of change (e.g. mindspace) can utilize this information to try and create an environment that is more conducive to altering or improving the public’s financial capabilities.

For example, many types of financial behaviours can be delineated, ranging from relatively simple behaviours such as applying for and using a credit card to more complex decisions about investments and pension plans. It is very likely that these behaviours differ systematically in their determinants (i.e. applying for a credit card is not the same as figuring out a 401(k) plan). Of course it is possible to test out different behavioural change strategies in a ‘hit or miss’ type manner, finding out ‘what works’ through an iterative (experimental) process of trial and error. Yet, is it not presumptuous to think that sustainable behavioural change can be achieved without understanding the factors that underlie, drive and differentiate the behaviours under investigation? In conclusion, determining tradeoffs between the extent of environmental adjustments (e.g. default enrolment in employer

pension funds) and more cognitive-based strategies (e.g. improving financial literacy) is (or should be) contingent on a thorough understanding of all the (conscious and subconscious) determinants of the targeted behaviour.

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