



# Insights into Behavioural Public Policy

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## 1. Introduction

# IN THIS ARTICLE WE BRIEFLY REVIEW THE METHODS AND SOME OF THE MAJOR FINDINGS OF APPLIED BEHAVIOURAL SCIENCE, AND THE ROLE THAT BEHAVIOURAL PUBLIC POLICY CAN PLAY BASED ON THOSE FINDINGS.

Examples of successful behavioural public policy from a variety of contexts are presented.

In the Oscar-winning film *As Good As It Gets*, the obsessive-compulsive character Melvin Udall tells the woman he loves that he has started taking his medication because ‘You make me want to be a better man’. Having struggled to be who he really wanted to be, Melvin finds in Carol sufficient reason to overcome the obstacles he faced. He takes the drugs, and they live happily ever after (more or less).

At its heart, this is a love story for mainstream economists. An individual, presented with a sufficiently great incentive, makes a rational choice out of self-interest to alter their behaviour in an effort to maximise their utility. The pairing of a romantic comedy and a rational theory of decision making may seem unusual, but from the point of view of making public policy the two have much in common. Both the film and the theory present accounts of human behaviour which risk glossing over the details of how people really work.

In many respects, we are each more like Melvin than we might think. In different contexts we each want to be better people, whether by eating better,

exercising more or spending less. But regardless of our long-term visions of ourselves, we struggle to live up to our own expectations.

We have difficulty choosing between large numbers of subtly different options (described in the literature as “comparison friction” and “choice overload”). We overemphasise and rely upon information that is close to hand (an “availability bias”); even if we get the best information we often fail to interpret it correctly (given problems of framing and misconceptions of risk and uncertainty); and even if we *do* correctly interpret that information and determine the best course of action we frequently put off until tomorrow what could and should be done today (thanks to “hyperbolic discounting” and a “status quo bias”).

These are just some of the behavioural tendencies that prevent us from doing the things we might truly like to do, and which stop us from being the better person we would like to be. While traditional economic theory doesn’t strictly require that people always make perfect decisions that maximise their self-interest (economics has for some time now incorporated the role of uncertainty and imperfect information into its analysis,

for example), it *does* require that people do not consistently and repeatedly make choices that they are then unhappy with. The most significant insights of applied behavioural science are those which challenge the conventional wisdom by identifying behaviours that are what Ariely (2008) calls 'predictably irrational'. That is, they are not just individual instances where the outcome was not as a rational theory might predict, but rather situations where on average the behaviour of many individuals contradicts the traditional theory and where this outcome persists over time and space. And, unfortunately, the research suggests that we are rarely capable of overcoming these obstacles with the kind of resolute determination demonstrated by Melvin Udall.

The good news is that using behavioural public policy, policy makers now have a way to help people avoid biases and problems of decision-making in order to achieve better policy outcomes – to help people become the better person that they would like to be. The discipline can offer new perspectives and policy ideas and can be used to temper and complement existing conventional policies. Starting and stopping with an incentives-based approach to public policy no longer has to be as good as it gets.<sup>1</sup>

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*1 It is worth noting that the great success of behavioural economics and behavioural science in general has been to modify and refine existing understandings of behaviour, rather than to wholly replace them. We do not suggest here that there is no place for conventional incentive-based policy, but rather that the use of policies based on behavioural science can complement or substitute such policy in specific contexts.*

## 2. Behavioural public policy

We consider behavioural public policy to be public policy that is informed by and utilises the findings and methods of applied behavioural science. We deliberately use the broader term “applied behavioural science” rather than the more popular term “behavioural economics” because of the interdisciplinary contributions to and foundations of the field. As a formal branch of inquiry, the field of behavioural economics is relatively new (even if many of the concepts it utilises draw on existing ideas). Until the 21st century it was also quite small. The rise in its prominence is reflected by (and in no small part thanks to) popular works of non-fiction such as *Nudge* and *Predictably Irrational*. Daniel Kahneman, author of the similarly successful *Thinking Fast and Slow*, notes that because the salient counterintuitive examples of behavioural quirks in these volumes were presented by economists of one type or another, the accessibly presented research therein was considered to be behavioural economics even when it was derived from the fields of social and cognitive psychology (Kahneman 2013, viii).

It is in order to accommodate the interdisciplinary nature of (and avoid misrepresenting) a field that draws from psychology, economics and other disciplines that we follow Kahneman’s (2013, ix) suggestion by referring to ‘applied behavioural science’ rather than ‘behavioural economics’. This paper considers the insights from applied behavioural sciences in the context of examples of their application in public policy.

We do not claim that behavioural public policy is a panacea for policy problems, nor that it needs to be considered a complete substitute for policy options predicated on more traditional economic logic. For example, there is room within applied behavioural science for varying degrees of opinion on the role of material self-interest. Nevertheless, we argue below that applied behavioural science can complement conventional economic or rational approaches to policy by helping us understand which incentives are most likely to work and which ones are not.

### 3. Relevant findings from behavioural public policy

Research in applied behavioural science has revealed numerous blind spots and biases in our decision making (many of which we are unaware of or would actively deny, even as we were exhibiting them) which results in just such deviations from more traditional predictions. Some of these phenomena are a result of seemingly hard-wired behavioural tendencies (for example, mistaking correlation for causation, or seeing patterns in random variation). Others are the function of what many applied behavioural scientists call the 'choice architecture' of decision-making.<sup>2</sup>

In retrospect it is surprising that it took so long for the well established field of what is commonly known as behavioural economics to be applied to policy problems. In fact, Kahneman (2013, ix) has noted that he was 'quite slow' to recognise the connection between his own work and the policy world and heralded *Nudge* as 'the major accomplishment of behavioural economics.' Behavioural public policy then is a far newer area than behavioural economics. By utilising the findings of applied behavioural science policy interventions can better achieve their outcomes and employ more effective and efficient methods.

In the section below we review in general some of the biases found in applied behavioural science that we then relate to more specific examples from public policy.

#### Loss aversion and status quo bias

Loss aversion describes the phenomenon whereby people place more weight on losses than they do on gains of the same absolute value. One useful insight that can be drawn from the presence of loss aversion is that while policy makers may conventionally regard taxes and subsidies as relatively interchangeable tools of equal effectiveness, if people care more about losses than gains then they may be more sensitive to taxes than subsidies (Sunstein 2013, 65). The sensitivity to taxes or levies is such that sometimes even only a small charge can result in a significant shift in behaviour. In Singapore, for example, while the introduction in 1975 of a toll as a form of congestion charge to reduce traffic had the intended effect, the introduction of a toll one sixth of the size in 2008 was similarly effective, despite being much smaller (Leong and Lew 2012, 54, 56). It is important to emphasise that the idea here is not that loss aversion implies that all losses will be weighed equally - it does not. Rather, the case of traffic congestion in Singapore suggests that it was the threat of incurring any loss at all that altered behaviour.

Loss aversion also has an effect on default settings. In particular, the tendency for people to stick with the current state of affairs rather than risk a change has drawn attention to the importance of default policy settings. In the context of organ donation, for example, 90% of the

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<sup>2</sup> Sunstein (2013, 9) defines choice architecture as being the 'social environment' in which decisions are made.

population of countries with an opt-out system of donation are donors compared to fewer than 20% in countries with opt-in systems (Johnson and Goldstein 2003, 1339). In Germany an opt-out for green power usage results in much greater use of this option (Sunstein 2013, 102). While designing and implementing new incentive structures to encourage organ donation or green power usage cost money, setting the default options can be far less costly.

### **Myopic discounting**

In conventional economic models, individuals compare future values with present values based on an appropriate discount rate. Behavioural research has found, however, that individuals discount points in the future at a higher rate than those closer to the present. This tendency has been called 'myopic discounting'. One of the most frequently cited examples of a policy intervention aimed at addressing myopic discounting is the Save More Tomorrow program. This scheme lets employees commit in advance to increases in the amount of their income that would automatically be diverted to savings programs, and resulted in substantial increases in rates of savings (Benartzi et al., 2013, 247). A decision which was put off until tomorrow in part because of the myopic discounting of the value of future savings was able to be encouraged through this policy intervention.

### **Material vs. social incentives**

Behavioural research exploring the role of social norms in decision-making has found evidence that in some contexts, rather

than simply adding to the incentives to engage in a particular activity, introducing material incentives can offset existing social incentives. A frequently cited example is that of Israeli day care centres who started fining parents for picking up their children late. The consequence of this was that late pick-ups actually *increased* (Gneezy and Rustichini 2000, 8). Charge a fine for picking children up late from day care, and you override the social norm that says you should not keep the staff waiting; parents were more willing to pick up their children late when violating a material contract than a social one. Turning social interactions into economic transactions, or even combining the two, can have deleterious effects that would not necessarily be predicted by theories of rational-decision making.

Notifying individuals of social norms can also have a powerful effect. There are several examples of this: In the United Kingdom, notifying taxpayers of peer compliance with the requirement to pay taxes on time resulted in a 15% increase in those paying taxes on time (Sunstein 2013, 69); another study in the UK by John et al. (2011, L971) found that presenting households with cards bearing 'smiley' faces when they were above the neighbourhood average (and with 'frowny' faces when they were below the neighbourhood average) in their efforts to recycle food waste improved their rate of recycling; Sunstein (2013, 66) notes that informing college students of actual rates of substance use among their peers (which were much lower than the perceived rates) reduced their usage.

## Information and choices

Behavioural research suggests people demonstrate an 'availability bias', where individuals form beliefs and make decisions on the basis of information already available to them, rather than searching for new information.<sup>3</sup> While this could be consistent with a rational theory of decision making in contexts where obtaining new information is prohibitively expensive and already-obtained information is costless to use, there is also evidence that even when gains from new information are relatively high and the costs of obtaining it are relatively low, people may not seek it out. Studies have found that even when information was easily accessible and freely available, consumers did not make use of it unless they were directly provided with it, even when there were potential gains of around \$100 per year (Kling et al. 2012, 201). This phenomenon suggests that helping people to make their preferred choices may require more than simply making the information available to them.

Other research indicates that that even if we do have access to all information about our various choices (assuming we've overcome the costs of obtaining it) there is a risk of 'choice overload' whereby the a greater array of choices or options there are the more trouble people have actually making *any* decision, let alone

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*3 And in the event that individuals do go searching for new information, 'confirmation bias' makes people likely to place more weight on information that reinforces their existing view or preference, and to place less weight on information that contradicts it.*

the best one. The oft-cited study that demonstrated this phenomenon is the one in which people had more trouble choosing a preferred jar of jam as the number of different jams increased (Iyengar and Lepper 2000). This also affects more profound individual choices such as what health care or superannuation program to enrol in.

Given the challenges individuals face obtaining and using information in their own best interests, there are opportunities for policies that simplify the presentation of information and ensure that making a preferred choice is as easy as possible. Providing information alone is not necessarily enough. Providing simple and useful information is what matters. For example, when people are interested in vaccination, providing them with an address of a location where they can be vaccinated sees fewer people actually show up for vaccination than when they are provided with a map showing them how to get to that location (Sunstein 2013, 59).

## Other biases and effects

There above list of phenomena is by no means exhaustive - there are many other notable findings from applied behavioural science with public policy applications. For example, face-to-face or more personal interactions have been found to have more influence on individual choice than impersonal ones. Well-documented biases such as self-enhancing bias or overconfidence can contribute to unrealistic optimism about one's own abilities and even to self-delusion about one's own adherence to rules. Framing also has powerful effects.

## 4. Conclusion

We believe behavioural public policy shows significant promise and will be used even more widely in the future. Applied behavioural science and behavioural public policy is particularly useful in terms of acknowledging the cognitive biases that citizens have and the effect of social norms. These are factors which have often been overlooked by traditional approaches to policy based on incentives. In acknowledging these biases we can design policy that serves individuals' and the broader society's goals in a way that can often save government money and result in better public policy. At a minimum behavioural public policy helps government communicate in clearer language how choices are offered to citizens.

Behavioural public policy has made us aware that while outcomes are affected by incentives/costs they are also 'independently influenced by choice architecture – by the social environment and by prevailing social norms' (Sunstein 2013, 210). In this way, behavioural public policy has provided policy makers with a whole new conceptual and empirical way of thinking about policy problems that may have in the past seemed intractable. Incorporating behavioural public policy into traditional public policy making should then result in a more holistic approach to policy making which acknowledges the cognitive biases and social effects that many citizen's decisions rest on. This should, in the end, result in superior public policy.

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