1.   Introduction

We live in an age of large public policy problems that governments find
hard to solve. These include obesity, climate change, terrorism, race
discrimination, corruption, and youth unemployment, just to name a few
current policy challenges. The list could go on to include a large number
of other topics that range across all aspects of human experience. These
problems share their origin in human behavioural traits or habits that
persist over time. Behaviours create and sustain poor outcomes, both for
individual citizens and communities, mainly because effective policy
outcomes usually depend on some degree of citizen action and respon-
siveness. When citizens are engaged, motivated, and willing to change
their behaviours, it is much easier for governments to achieve their policy
objectives, partly because all citizens are joint participants in acts that
have collective benefits. When citizens are switched off, antagonistic to
governments, and focused on their short-term interests, public policy gets
much harder to implement and poor outcomes are the result.

   Whether helping or worsening policy outcomes, behaviours are often
transmitted through peer groups and in close social networks. Behaviours
get embedded, as they are reinforced through habit and mutual depend-
ence. Even government policy has a role in sustaining behaviours that
might be negative for the individual and society in spite of good
intentions and many beneficial measures. In health, for example, the
policy of responsive medicine and fixing problems immediately can
undermine a more preventative approach based on promoting more
healthy behaviours, as people expect to attend hospitals. As a result, the
effort and resources of the public health services get concentrated on
interventionist medicine. Many structural inequalities in income and
capacity also influence human behaviour, which in turn reinforce existing
inequalities. As many policies sustain these disparities, poor behaviours
may continue over time, encouraged by governments as well as market
forces. The implication of these factors is a negative equilibrium trap
whereby collectively reinforced behaviours lead to poor outcomes. The
trap occurs because it is rarely in the short-term interests of people,
groups, economic enterprises, and even governments to change their
behaviours, partly because of the potential cost each participant faces

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from moving from the current state of affairs to one where all benefit. The question that arises for policy-makers and social scientists is what measures and approaches could be used to create a step-shift in policy outcomes by reversing or changing embedded behaviours?

Governments or other public authorities are elected with a remit to try to solve public problems. They have a number of tools and considerable resources at their disposal to do so, whether taxes, laws, the capacity of their bureaucracies, or by being at the centre of networks of experts and sources of knowledge (Hood and Margetts 2007; John 2011). The challenge is to be able to use these tools effectively and efficiently change behaviours. The potential benefit of such official efforts is a sustained improvement in outcomes for society and the advancement of the common good. The deployment of human ingenuity and putting in place the right combination of resources might shift long-entrenched behaviours and lead to an upward movement in outcomes. Such a transformation often operates in a virtuous circle of self-reinforcing activities, such as a movement from a neighbourhood with high crime, low employment, low trust, and high degrees of social dysfunction to one where these attributes lessen over time and where positive actions emulate each other to sustain local economies, increase access to employment, and reduce anti-social activities.

Such entrenched behaviours, and corresponding opportunities, are often thought to characterise only poor communities, which do not have good opportunities for employment and are dependent on welfare. But richer communities can fail too, even those that have economic advantages and other opportunities but where not enough people contribute enough to social outcomes or innovate in the local economy, or where people become unwell from lack of exercise and unchecked affluent lifestyles.

Governments have tended to focus on solutions that come from the power of the state to change things, such as provide more units of public activities to address public problems directly, through increased public expenditure and employing greater numbers of public servants, such as police officers, nurses, and soldiers. As societies got wealthier and more settled they have been able to allocate resources and make regulations to ameliorate public problems. These solutions often depended on influencing individual actions, such as patients attending hospital clinics or the unemployed being ready for work; but changes to individual behaviour were not core to these programmes, which were about using the authoritative tools of the state to effect change.

In spite of the considerable successes of these initiatives, policy-makers and experts have come to realise that the use of such powers and

resources often does not fully address the problems under consideration, mainly because they often cannot change the behavioural impulses and habits that sustain the problems over time. In part, many of the harms come from prosperity as people adopt more affluent lifestyles. In more complex societies, there are more interdependencies, which means that solving public problems entails tackling a range of human actions that interlock. Greater social science knowledge about the causes of public problems shows them to reflect these complexities and to depend on a range of reinforcing behaviours and actions.

To an extent, governments have always been aware of the need to change behaviour, whether it was asking people to volunteer, for example to serve in the armed forces, or advising them to take precautions against the spread of diseases, or ensuring they respond to new tax breaks or increases. People or organisations receive incentives from government, but to communicate these policies governments have often relied on simple pleas, as in posters and media campaigns, and the more gradual processes of education and information provision, as well as providing clear benefits and costs for desirable and non-desirable public actions (Becker 1968). In societies with high degrees of social deference and respect of authority, it is possible for a fully paternalist approach to work well. By communicating injunctions to change behaviour, backed up by laws and incentives, governments can create the changes in outcomes that are needed. It is possible to think of encouragements to eat healthily or to volunteer or to report crime as obvious tasks of government, but they depend on a respect for authority and expertise to work well. In today's society, such deference to government and experts has weakened; it has been replaced by a belief in consumer sovereignty and the right to have one's own opinions as to the good life, which is the natural end point of the liberal ideal. Expertise is often questioned and not trusted, which may be a result of increasing polarisation of issues and attitudes. Commonly-used measures based on incentives, command, or education may not change behaviour in ways they once did or appeared to do. People even resist commands because of the way in which they are put, as they do not like being told what to do or how to behave. Then there is information overload from multiple media sources, including social media.

If conventional methods of achieving change are not so efficacious, it is not surprising that governments tend to act on the consequences of the behaviours, putting right the effects rather than the causes of the problems. They adopt policies that help them get elected, such as providing more expenditure on hospitals or roads. It might be the case that providing more policy outputs is the most feasible course of action and the one that is politically the most possible. But many policy-makers

want to make more of a difference. They know about limits to resources and they wish to find whether new ideas and knowledge can work. There is a common image of policy-makers operating according to a crude version of the rational actor model, in seeking votes or expanding their bureaus; but political action is more complex, and incorporates a public service motivation to do good for society (Ritz et al. 2016), which is one of the reasons people go into politics or public service in the first place. With an awareness of the limitations of the tools of government and a willingness to try new things out, the question becomes whether governments can address behaviour change head on with theories and approaches that speak to the behaviours themselves and change them.

BEHAVIOUR CHANGE AND NUDGE

The point about measures to address behaviour change is that they need to be based on theories about why the desirable behaviours are not occurring and then interventions that address those behaviours and change them. Better understandings of the drivers of behaviours and what causes changes in individual actions have the potential to transform public policies to ensure interventions and public decisions directly address fundamental problems of society. A powerful and growing movement in the social sciences has gathered pace in recent years with its radical agenda and scientific backing. Over the last three decades or so, the behavioural sciences and behavioural economics have incorporated insights from psychology about what motivates people to change their behaviour, ideas that have taken root in more established research programmes in economics and the policy sciences and have diffused to subject disciplines, such as studies of health and education. There has emerged an extensive research programme, which rigorously tests its claims, increasingly done through field experiments. It complements older traditions of research that use psychology to inform public policy, such as in health psychology, with the difference that the behavioural sciences are genuinely interdisciplinary and have a high level of public visibility and acceptability, so that they can reach into all aspects of public policy.

Out of studies of behavioural economics and behavioural sciences has come the greater interest by public agencies in using these ideas. This policy field is often called 'nudge' (Thaler and Sunstein 2008), which is often thought to be the idea that low-cost small changes, attuned to human psychology, can make large improvements to public policies, largely from encouraging citizens to do things that they would upon

reasonable reflection agree with. Policy-makers of all different types have used theories and evidence on behaviour change in developing interventions, often helped by nudge units, such as the UK's Behavioural Insights Team (BIT) and the White House's Social and Behavioral Sciences Team. As a proof of concept, they deploy randomised controlled trials (Haynes et al. 2012), which randomise the message or nudge to an intervention or a control or non-intervention group, comparing outcomes, such as payment rates, between the groups. This procedure reaches a high standard of evidence in attributing a causal relationship between the nudge and the intervention (Gerber and Green 2012). It also creates headline results that are easy to interpret as percentage point differences, which can translate into benefits to the agency, such as increased revenue. This combination between respectability in methods, easy-to-understand headline results, and information for cost and benefit decisions has helped assist the dissemination of behavioural insights, within and across governments.

Armed with evidence from trials, agencies have been redesigning the messages that they send, such as telling taxpayers who are behind paying that nine out of ten others have already paid their bills, so conveying the social norm (Hallsworth et al. 2017), or making text messages more personal so people settle their court fines on time (Haynes et al. 2013). Influenced by the high level of official interest, academics of all types working in behavioural science now consider more policy-relevant applications of their research (Oliver 2013a; Shafir 2013), which also feeds back into the design of policy interventions. A large research agenda has been created on what is sometimes called behavioural public policy (Oliver 2017).

The nudge agenda has been assisted by skilful advocacy by academics and entrepreneurs, so its terms and understandings have entered the mainstream of debate and public policy. Such acts of dissemination have created the world of nudge and applied behavioural insights. Advocates, such as academics and heads of nudge units, have presented behavioural insights in a way that is pragmatic, apparently based on common sense, closely linked to the concerns of bureaucracies and responsive to their demands, in particular by addressing cost pressures. Partly as a result of this translation and diffusion, and the essential pragmatism of the enterprise, there has been an extraordinary success story in the use of behavioural insights. The result is that governments and other public agencies from a large number of jurisdictions have adopted a set of techniques that allow them to address key problems in public policy and improve the efficiency of public administration.

There are two dimensions of policies or procedures that need to be adjusted by the policy-maker: one is the communication flow to the

citizen, which is based on a plausible psychological mechanism to change behaviour, such as peer pressure, norms, or availability; the other, in tandem with the first dimension, is an institutional change, an alteration of standard operating procedures, what Thaler and Sunstein (2008) call 'choice architectures', which are the rules and routines of public agencies that intersect and structure the choices of citizens and other actors, such as by offering defaults, opportunities, or new ways of doing business. The first dimension is what most people associate with nudge, for example the messages sent by BIT mentioned above. But it is the changes to institutional design that are core to behavioural public policy and are the sources of its agenda for a change in the delivery of public services. Otherwise nudge just becomes another version of what is called 'social marketing' (see discussion by Hallsworth and Sanders 2016, and in Chapter 3). In other words, to be more than the science of messaging, nudge involves a reform of political institutions and bureaucracies. As a consequence, nudge advocates propose changes in how public organisations operate internally as well as about how well they communicate with citizens. Partly as a result, the agenda of nudge integrates closely with core questions in political science and the study of public administration, in that it seeks to find out in what ways institutional design affects communication flows between citizens and government, so that citizens cooperate with each other more effectively and achieve collective action, that is so they see it as in their interests to contribute to public goods (Ostrom 1990).

Public goods are the positive externalities associated with pro-social behaviour change, that is benefits that have collective advantage, but which are not in the short-term interests of people to contribute to, partly because they fear bearing the cost, or they think there is no point doing small actions that are unlikely on their own to make a difference. Policies designed with behavioural insights might be seen to cumulate to facilitate collective action, and to promote greater trust in others and in government. Such policies may convey signals that ask people to contribute to public goods, either based on people's understanding the wider social purpose or with the policies operating subliminally without recipients being aware of the social benefits. In this way, behavioural public policies operate within the moral economy of private actions, whereby people can be encouraged to act in ways that are pro-social and overcome their sense of self-interest (Bowles 2016). Individuals are not entirely the rational non-co-operators described in basic game theory, such as the players in a prisoner's dilemma. But there still remains the problem of conveying an effective signal in a way that generates collective action,

and encourages individuals to perceive societal and their own incentives as working together, which is not easy to achieve.

THE TOOLS OF GOVERNMENT

Nudge can address more fundamental aspects of behaviour by working with the existing tools of government. By reforming how the tools of government work, such as with taxes or regulations, behavioural public policy can improve their traction so that citizens willingly change their behaviour for the public good. In that sense, the ambit of behavioural public policy is much wider than the nudge stereotype indicates and includes applying behavioural insights to all actions of government rather than just to information flows between citizens and the state. For example, a tax change, which appears to be as far from a nudge as can be imagined, can change behaviour with no reference to behavioural insights, but it will be all the more effective if designed with them in mind (e.g. Chetty et al. 2009; Chetty and Saez 2013). Legal reforms need to be introduced with awareness of the informational environment if they are to be effective, even if the use of the behavioural sciences involves some careful thinking about the purpose of law and its relation to democratic processes (Alemanno and Sibony 2015). In these ways, the conventional tools of government can be refashioned using the ideas of behavioural science. The claim is that all tools of government are informational at root and current research can refine and improve their effectiveness (John 2013a).

The wider applicability of nudge to the tools of government has prompted some to recommend that government should use behavioural science to force citizens to move away from their existing behaviours rather than nudge them (Marteau et al. 2011). Behavioural ideas can more effectively compel people to change their behaviours than nudge, which is seen to be more of an encomium. It involves using the power of the state to sanction changes when they are needed rather than rely on situations where citizens can opt out or refuse if they want. In spite of wanting to go beyond the more limited range of messaging policies, compulsion is not the approach of this book. It would be counter-productive to develop a super-science of public administration so the tools of government become directive in character, even though some of these efforts can be useful in the right context. In the end, top-down behavioural policies, even when refined by testing, will fail because of the entrenched ideas and embedded behaviours of citizens. The result

may be some short-term changes in behaviour, but not the uplift that policy-makers and voters are looking for. Citizens increasingly resist such commands and find ways to avoid regulations, which is the result of the loss of authority of government and other expert voices, and the spread of democratic ideas of self-ownership. Command and control often just do not work on their own as strategies. It is better to work within sets of human expectations and relationships, along the grain of habits and values of both policy-makers and citizens, so that both connect to each other in better ways, which involves respecting the autonomy of each in the process. In that sense, no one wants nudge policies to be effective in getting the police to arrest suspects more quickly, or in inculcating fear among taxpayers; instead, the nudges of Thaler and Sunstein appeal more to people's good nature to get them to pay taxes on time or report crimes and so on. It can be finely balanced between using nudges to get better tool design and using psychological insights for commands and controls. A middle approach is advocated by Oliver (2013b), who argues for *budges*, which indicate a wider range of policy options than nudges. Overall, the desired balance of behavioural insights is to have as many responsive nudges as possible and choose ones that build on democratically agreed policies and procedures rather than rely on top-down controls. With these considerations in mind, policy-makers are in a good position to seize the opportunity to develop more decentralised and reflective nudges.

   This focus on certain kinds of intervention has the advantage of not extending the definition of nudge to every action of government that uses a psychological insight in some way, which could be construed to be anything that government does. It avoids concept stretching, which Sartori (1970) complained about in studies in political science. Nudges remain as light-touch human-centric policies and prompts. But opportunities to find them exist right across the spectrum of public activities.

NUDGE AND THE IMPLEMENTATION OF PUBLIC POLICIES

As well as operating across the range of tools and instruments, nudging can operate within the implementation chain of policies. A successful policy relies on a chain of interactions within bureaucracies as well as feedback and interdependence between citizens and public organisations. A behavioural approach can examine each link in the chain, find out about the behavioural cues needed to improve the transmission of commands and responsiveness to context, and then improve the delivery

of the policy. It is hard for a behavioural intervention on one element of the implementation process to work if other parts of the delivery chain are not fully functioning. Reforming more than one link in the chain, making the improvements in delivery, can fan into the whole administrative process. Positive feedback can improve the working of all the sequences in the implementation process and generate better policy outcomes, as all actors benefit from the resulting synergy. This strategy also requires repeated interventions to tweak the implementation process.

This opportunity for using behavioural public policy addresses concerns long expressed by theorists of implementation about the likelihood of policy failure and the importance of improving the causal links in the implementation process by better theories about what works (Pressman and Wildavsky 1973). A key challenge is how a sponsor agency can ensure a delivery agency implements a policy faithfully. Behavioural insights inform work on implementation by moving beyond seeing policy outputs just as a summation of desired changes. Instead, as implied, for example, by cybernetic approaches to implementation (Dunsire 1993), improvement happens more effectively because of system-wide communications and positive feedback, which do not need to be guided step-by-step. Other recent studies of implementation have focused on learning, stimulated by better leadership and close attention to detail (Coelho and Ratnoo 2015). Behavioural insights can be the route to forging these better links, by careful appraisal of the causal steps and encouraging positive feedback up and down the delivery chain.

ENTREPRENEURIAL PUBLIC ADMINISTRATION

Behavioural public policy is usually practised by bureaucrats who are located in agencies. They have power and legitimacy to act from the authorisation of politicians. In such a context, doing behavioural policy might seem to be straightforward. It requires decision-makers to embrace the ideas of behavioural science and improve their evidence collection procedures. They then can put into place interventions that make best use of these ideas: hence nudge units and behavioural policy initiatives tested with randomised controlled trials (or other forms of rigorous evaluation) as discussed above. Such a move can help reinvigorate bureaucracies by making them more evidence based, more imaginative in their thinking, and increasingly willing to challenge existing ideas and standard operating procedures. Behavioural public policy can give power to the experts and those with track records of innovation, which can then spread across agencies in a pattern of diffusion. In this way, a more entrepreneurial

public administration might come about (John 2014). This expansion of interest can widen the purview of behaviour change policies; the diffusion of new practices might help bureaucrats develop policies without the frequent need for experts or nudge units; and it might lead to a try-and-test approach to developing and introducing policies.

Experimental or entrepreneurial public administration does of course have to be matched against all the forces in bureaucracies that keep them operating in path-dependent ways. They adapt in response to new ideas, but they are probably more interested in long-term survival by effectively gaming the adoption of new practices. As a result of this strategic behaviour, organisations survive, ready for the next set of new ideas promoted by think tanks and academic champions. In fact, to ensure longevity, the successful adoption of nudge requires skilful advocacy on the part of intellectuals and bureaucrats, who are sensitive to the needs of agencies, keen to deliver improvements to services and to save money, careful not to risk politically sensitive interventions, and are responsive to the pragmatic instincts of heads of large departments and delivery units (John 2017b).

With the success of nudge units in assisting government policy, it may be the case that the very adaptability of behavioural insights reveals nudge to be a conservative phenomenon, or more conservative than it should be, largely because of its ability to be easily translated, that is to be in tune with the preferences of administrators and politicians, whose interests might limit the potential range of nudge and disguise its potential radicalism. Such a concern about the underlying agenda of behavioural change and its potential range is the reason for the question in this book's title: How far to nudge? Nudgers have taken pragmatic and understandable routes to promote the successful use of behavioural insights; the question is whether there is a potential for a wider and deeper use of behavioural ideas so increasing the scope of nudge. In an initial answer to how far to nudge, this book's argument suggests that reformers and academics could apply behavioural insights much more extensively than they do now. The early innovations in behavioural public policies are just the beginning rather than an end point for the research and policy programme. It is a good time to bank the gains and move on.

THE PROMISE OF THINK: NUDGE PLUS

The secret of more radical nudges is to consider public policy in terms of how citizens perceive their own actions and those of public officials, especially as they unfold over the long term. Policy-makers need to

respond to citizens and act consistently with their preferences. To an extent, citizens need to be involved in and debate the policy changes that might be directed to their own behaviours. This is the agenda of think, which can be seen as an alternative to nudge (John et al. 2011), and is close to ideas argued for by those who believe in deliberative public policy. Debate, self-ownership, and collective decision-making are the key ways of achieving behaviour change. People are given information to debate the issues; they have the space to deliberate; and then policies may be changed as a result for collective benefit (Fung 2006). A range of democratic innovations across the world can harness this willingness of people to get involved in different ways (Smith 2009). The main problem with think is that it is hard to get these initiatives off the ground, ensure policy-makers use these procedures, and implement the recommendations of deliberative exercises. People self-select into these activities, making for an unrepresentative sample of the population involved, and nowhere near large enough to scale up to generate the shift in policy outcomes needed for mass behaviour change. Citizen participation exercises on their own often are characterised by low participation and minority representation. Such is also the fate of citizen juries and other deliberative forums. These interventions can also be expensive to implement. They seem to be better when addressing thorny public problems, such as the siting of a nuclear power plant, rather than the day-to-day issues of behaviour change, such as weight loss. In contrast, nudge initiatives are easy to implement, cheap to do, get the buy-in of policy-makers, do not need much effort or even conscious awareness on the part of citizens, and have an immediate impact on behaviours and in due course policy outcomes.

But nudge is closer to think than might be imagined, especially in how it works in practice. The claim of this book is that nudging is much more than giving messages or creating defaults; it requires some thought on the part of citizens to respond to signals from public organisations and their political principals. In other words, for nudge to work in better ways there should be a consideration about how citizens understand the wider choices in public policy implied by nudges. Citizens may need to understand the wider policy issues so as to be influenced by behavioural cues. Consider, for example, a nudge seeking to get people to turn up to a doctor's appointment on time (Hallsworth et al. 2015), which points out the costs to the publicly-funded health service of missed appointments. In one sense, the nudge could be seen as just a prompt, activating a subliminal belief that turning up on time is a good idea, and it is just the busyness of everyday life that has caused the patient not to arrive on time. But, in another, this nudge relies on the respondent understanding

that resources are tight, that it is bad to waste resources and that turning up on time has an effect on the quality of the service overall, and having a belief that the money saved will be beneficial. In other words, the nudge depends on people having thought about the complex public policy issues, which is the reason that behavioural cues and prompts are being considered by decision-makers. They need to know that it is a public policy problem. It is more than just being reminded of their civic obligations. Then also a degree of trust is needed on the part of citizens. Citizens need to know that people in charge of the system overall are striving to make it work better.

It is important for people to rein in their short-term desires and to act collectively. It also implies that citizens are not acting from short-term self-interest, where it may make sense not to turn up because of other things happening that are more pressing, where citizens think that the doctor will be free at another time and the appointment can be rearranged. A message asking someone to turn up on time implies that citizens think about their duties and obligations. It implies they know what it means to be an effective citizen. The same is true of asking people to pay their taxes on time. If taxpayers only thought about it selfishly they would weigh up the costs of non-compliance against the benefit in paying late, which yields the prediction that the nudge would not work, because it is hard for the exchequer to chase up everyone effectively, or people may behave strategically by paying at the last minute or incurring the cost of a penalty that is small compared to the benefits on cash flow and interest payments of not paying early. The nudge works better if it is part of a long-term conversation between the state and citizens about what is the role of citizens in public services, and about the relationship between individuals and the state. This kind of thinking might not need to be explicit, but it is implied in the ways in which nudges actually work in practice, even if citizens are not always thinking about the reasons and assumptions that are being conveyed.

The challenge for policy-makers is to ensure that some degree of reflection or thinking is integrated into the design and delivery of behavioural interventions so as to encourage citizen responsiveness. The opportunity for nudge is to deliver interventions in such a way that citizens can be involved and reflect upon their actions, an inclusive form of nudge that is transparent with the public. There is a wider debate about the use of ideas about behaviour change, but without the assumptions about citizen capacity made by deliberative democrats.

There is then a radical agenda at the heart of behaviour change policies, which can address core questions of political organisation and even representation, as it is based on re-establishing good relationships

between citizens and governments. It is only when the citizens are involved with the decisions that affect them that long-term solutions to public policy problems are possible. In this way, citizens can automate the changes brought about by nudge and integrate them into their routines and habits. They are nudged to think and then they habituate the acquired behaviours. This claim is at the heart of crafting behavioural public policy, that is policy founded on understanding the behaviours of citizens, but also embraces their capacity to reflect and participate in joint ventures by taking them seriously.

Such actions may be prompted by the nudge directly, but nudge can aim to get citizens to address the issue themselves with a little help. Citizens might lack the capacity to think through the issues or have the right level of information to make an informed choice. Nudges become what Hertwig (2017) calls boosts (see also Grüne-Yanoff and Hertwig 2016). Hertwig writes that 'boosts explicitly seek to foster existing decision-making competences and to develop new ones, thus enabling individuals to translate their intentions (preferences) into behaviour – that is, to exercise personal agency'. The effect is indirect, but moves away from the technocratic approach so common with nudges. Boosts are a bit like the thinks that John et al. (2011) tested, but are closer to nudges and more deliverable. In Hertwig's (2017) argument, people sometimes need help in understanding complex choices, such as which medical procedure to choose, which they are increasingly asked to do in an age of consumer choice and sovereignty. They may not understand the statistics of probability, but a few tips and guides might help them make better decisions. These interventions are sometimes called 'educative nudges', which are about transmitting skills and ideas, rather than automating desired behaviours.

In the argument of John and Stoker (2017), these kinds of strategies build on the original nudges, but they take them further, perhaps not as far as think, but a little way toward that goal consistent with what social scientists know about people's limited capacity for reflection, constraints on time, and their need for immediate effects, even if the approach is also about building a long-term partnership between citizens and the state. They call this approach 'nudge plus', which is to emphasise how nudges can be broadened outwards, so as to incorporate boosts and citizen thoughts about public policies. This stimulation of thinking is desirable so as to move beyond the more technocratic considerations of the nudge agenda as currently practised. Nudge plus amplifies nudges and makes them more democratic.

There is a greater interest in the behavioural sciences in securing long-term change rather than the short-lived uplifts that characterise the

classic early nudge interventions, such as tax changes and prompts to encourage charitable giving. Scientists and policy-makers know that the effects of interventions can last a long time, but these are usually maintained because of habit or discovering a new form of behaviour, which might be unconscious. There is now much more of an interest in developing self-sustaining behaviours that might operate across a range of activities that complement each other, so that people do more exercise, eat better, drink less, and so on, and this might translate into other behaviours and activities, so citizens get a new perspective on their lives as a result of reading across a range of their behaviours and seeing the links between them. This is what psychologists call a 'passion for long-term goals', or 'grit' (Duckworth et al. 2007). This commitment is not related to IQ, and moderately to education: the implication is that individuals can cultivate grit, in a long-term programme of behaviour change. Some of the nudges that are seeking to change people's goals, such as commitment devices that are keeping people on track, are about trying to get individuals on a path of change, and this requires people to consider their situations and then put into place measures that will change their behaviours, even if every step on the subsequent pathway is not consciously reflected upon.

So far, the kinds of nudges described earlier in this chapter have not fully addressed either thinks or the sustaining of interventions, partly because of the pragmatic agenda followed by nudge units and other advocates, designed to encourage agencies to use behavioural science and to bed down behavioural insights into the normal business of making and implementing policies. Given the success of nudge, now is the time to broaden it out and to link it more closely to democratic practice.

SYSTEM-WIDE CHANGES

The aim with nudge, boost, or nudge plus is not to use a behavioural insight to create a one-off change, but to promote a state or environment where these interventions help establish a new equilibrium of self-reinforcing and beneficial behaviours, whereby all benefit, and there is not a huge daily effort to keep the new behaviours in place. The end result is something like the *Highway Code*, which in the UK is a set of codified rules that are not legally enforceable and that govern how people drive their cars. They assist good driving to the benefit of all, but nobody enforces this; it is a self-regulating system of rules. The behaviours follow from a common understanding and internalised norms. People don't need to think about the code and may have forgotten it long after

passing their driving test, having mugged up on it in order to get through. But it still influences their behaviour and on reflection most people consider it a good thing to follow. Of course, a highway code is not a perfect system of nudging. People do not always obey it, especially in metropolitan centres like London. A pedestrian might find it hard to rely on cars following the code, for example acting on road signs. Many motorists might behave selfishly and only follow the code strategically to avoid hitting other cars. But such imperfections are bound to be the case in any informal scheme, which is why there is a need for policy-makers to try to shape these understandings by nudges. The key question is how to get to a more self-sustaining implementation system and whether some reflection as well as nudging is needed to improve such codes and introduce them for every kind of behaviour. The nudge creates the reflection that causes people to adopt the code; then automatic and self-monitoring processes sustain the behaviours over time, as well as daily interactions with others who also observe the practice. The code creates a set of norms that are maintained over time by habit and fear of not abiding by them. The nudge becomes the initial shift that sets off an upward cycle of desired behaviours, one action that is part of a system of reinforcing actions, with occasional repeated nudges to keep everyone on track.

In fact, behavioural interventions need to be seen as part of a complex system with moving parts (Spotswood 2016). The designer needs to think about how to move from one equilibrium point to another, an insight which reflects recent progress in the economic analysis of experiments (Banerjee and Duflo 2014). The interest in using experiments is not just to show that there is a one-off change, which might in fact put a system out of equilibrium; rather they should show how the balance of interests and interactions can shift to a new pattern of cooperation and regulation that is both beneficial and self-sustaining.

Another example is smoking bans, such as the one introduced in England that prohibited cigarette and other smoking in workplaces, particularly in bars, cafes, and clubs where staff work but where people used to like to smoke. These laws have the appearance of central government compelling people not to smoke indoors. In reality, the laws follow public opinion and considerable debate about what needs to happen. There need to be considerable changes to the political and policy agenda beforehand. Once the ground has been laid for a reform, the legislation can create a new equilibrium point, which ends up with people willingly not smoking in public places. Smokers internalise the norm of not smoking inside, agreeing with the principle behind the legislation. They nudge each other. Light-touch reminders from public authorities are

all that is needed to sustain the practice over time. No enforcement needs to occur, as those who smoke consent to the rules, which on the whole they believe to be fair. They do not even need to think about obeying the rules, which they come to do automatically. The question becomes what interventions might start off the process of accepting regulatory changes and the establishment of a stable system of self-reinforcing behaviours, and whether people can be nudged in ways that support a system change.

This attention to the underlying support for institutional and behavioural outcomes is a more radical version of nudge and takes the agenda to a wide-ranging set of actions and behaviours. The agenda of this book is to radicalise nudge and to extend its insights, as a way of answering the question in the book's title. With talk of the system of interactions, it becomes vital to include the policy-makers as part of the conversation, and these people should be expected to change their behaviours too, which provides a further extension of nudge, as the next section elaborates.

TURNING THE TABLES ON THE POLICY-MAKERS

There is a paradox: the use of behavioural policies requires the upholding of the ideal of the classic rational politician or bureaucrat who carefully weighs up the evidence and then follows the best course of action. But this is just what behavioural science says does not occur: decision-makers should be just as responsive to cues and limited in their capacity to weigh evidence as the citizens they hope to influence. This bias occurs in spite of official support and the backing of experts who advise policy-makers. Often heuristics take precedence because of the speed of decision-making. Decision-makers prefer to rely on their own instincts and act out of habit (Loewen et al. 2014; Lodge and Wegrich 2016). This argument appeared in the classic works of public administration, as set out by its founding scholars in the 1950s, in particular by Simon (1947, 1955), who formulated the concept of bounded rationality. These ideas reappeared in Allison's famous book *Essence of Decision* (1971). Such concepts are consistent with formal models of politics that emphasise search costs.

The limited cognitive range of politicians and bureaucrats may mean that nudge becomes the preserve of the enthusiast or the follower of fashion. Politicians are locked into existing routines and sources of information, with new ways of working involving risks and potentially negative outcomes. Indeed, prospect theory says they would avoid making decisions that have potentially negative or perceived negative

outcomes. In practice, some politicians take risks and are not fully aware of the negative outcomes. Rather than considering the costs of system redesign and being aware of the risks of adopting new policies (testing them through trials), they are more interested in being able to claim credit for acting in the short term. The bureaucrats who adopt behavioural insights may be those who benefit from being innovative or being different from the mainstream, or risk-takers. There is the danger that the behavioural interventions will be the wrong ones, and done from advocacy, fashion, and the norms of behavioural science. It is a case of the blind leading the blind.

In the end the limited human cognitions of elected politicians and bureaucrats offer an opportunity for citizens and citizen groups to use the self-same techniques of behavioural science to influence politicians in ways that are more direct than elections and public deliberation. The spread of the use of behavioural ideas beyond government gives an opportunity for citizens to turn the tables on their governors. They can nudge politicians and bureaucrats. In this way, there is an opportunity to move away from the paternalistic and technocratic assumptions of the existing version of behavioural policy and to open up government using a variety of nudges and cues, which might be an achievable conversation to have, and one that might be feasible given the resistance by citizens to deliberative exercises that need high levels of time and commitment. The result is that politicians, bureaucrats, and citizens are engaged in a shared project, both to use behavioural techniques and to work out what they are for. All can learn as part of this process, which involves interaction. Citizens are happier to influence politicians who have more limited formal rationality. All are human and need external stimuli to get to the best course of action.

CONCLUSION

In this book, the meaning and scope of behavioural public policy are set out. It is seen as an ideal to which bureaucrats, citizens, and politicians can aspire. The claim is that thinking in terms of behavioural solutions can help policy-makers address public problems, but that part of the solution is the engagement of citizens in problem-solving activities. The result is bureaucracies that are not only adept in using behavioural ideas and testing them experimentally, but also are responsive. The solution to current policy problems is about joint problem-solving between citizens and bureaucrats, where each recognises the limits of the other in terms of time and capacity in making decisions.

This book goes beyond many publications in the field of nudge, while paying due homage to the important books and papers that have come before. It seeks to apply the perspective of a political scientist and public administration scholar: that is, to see the application of behavioural policy as a feature of politics that needs to be viewed as a consequence of conscious decisions to implement and to introduce behavioural policies, and that has to be argued for within bureaucracies and implemented using standard frameworks for delivery. The book aims to understand the impact of behavioural policies within bureaucracies and how they operate. It seeks to set out the wider context of nudge in terms of citizen responsiveness to the measures proposed, which implies some degree of conscious consent about the proposals and an element of debate, even if done internally in people's minds as they make decisions. The book sets out the ideal of a more behavioural policy system, where policy-makers consider the interests of citizens when they formulate public policies and where citizens reflect upon and automate the behavioural cues that are produced by decision-makers. Citizens become part of the solution by using the behavioural sciences to get responses from policy-makers, and policy-makers stimulate other policy-makers in searching for a responsive and experimental public administration. The aim is to create a system of behaviours that positively reinforce each other.

There is a massive opportunity to be grasped. Too often large policy programmes fail because they do not address the behavioural determinants of policy outcomes; in particular, policy-makers often do not understand the very human reasons why measures and interventions fail. It is possible to use an understanding of human behaviour to solve these problems and change policy outcomes for billions of people across the world. It is desirable to use theories of behaviour change to improve the capacity of the government so it works much better than it does currently. Given the desirability of the basic objectives, the question is how far should policy-makers and reformers go? Can they go much further than they do currently? This book asks these questions and aims to provide answers, with the implication that reformers and policy-makers can nudge more than they do currently, and governments, when they are formulating and implementing nudge policies, can act in ways that are consistent with liberal ideals and uphold a responsive and rights-respecting system of public authority that citizens in a democracy rightly expect. By keeping a bottom-up perspective, working from the perspective of citizens and treating decision-makers as human actors, the potential of nudge can be seized in ways that enhance democratic ideals and are consistent with ethical goals.

PLAN OF THE BOOK

The approach of the book is bottom up: to explore the public problems that give rise to the challenges and then to see how writers and thinkers stumbled on the solutions. The starting place, in Chapter 2, is the nature of the problems that governments face. This chapter sets out the key policy problems facing government and why they are sustained by entrenched behaviours. It contains a more detailed review of some policy problems, such as obesity. It assesses why conventional policy instruments often fail.

Once the problems have been reviewed, the intellectual history starts in Chapter 3, as knowledge from the academy is very important in explaining what happened later on when policies were being formulated. The chapter reviews the extensive literature on behaviour change, and in particular is interested in the debates that occurred in the 1960s and 1970s that emerged from the research of Kahneman and Tversky. Even though the concepts of bias and judgement are not entirely original to these authors, the pair developed these ideas into a research programme that had a profound influence on economics and on social science thinking in general. Even though there have been debates in sub-disciplines, such as the psychology of health or social marketing, they have not had the profound influence of the founders of behavioural economics. Readers may be familiar with the review of behavioural policy problems in Chapter 2, and they may know the story of behavioural economics and other related studies in Chapter 3. If so, they may skip or briefly skim these chapters without risking not understanding the key arguments and claims that come later on.

The modern story starts in Chapter 4. The chapter is about the way in which ideas in the academy got into the mainstream, through the natural processes of influence and the role of advocates and entrepreneurs. There is an account of how nudge has been enhanced by its popularisation and has come to be seen to be common sense in its application, but also limited in its radicalism in that certain routes have been taken but not others. This argument, which is about path dependence, continues in Chapter 5, which considers how nudge has been used by policy-makers, which been propagated by nudge units and other agencies keen on applying behavioural insights. The chapter contains a review of the classic nudges, such as on letter redesigns and organ donation. This chapter also tells the reader about the policy innovations brought about by research in the behavioural sciences, but with an eye to what choices have been made and whether other opportunities could have been seized.

Chapter 6 starts to build up the core argument of the book by looking at some common criticisms of nudge, particularly over its range and the power of its findings. Even though many of these criticisms of nudge are overdone, the process of explaining them prompts the thought about what kinds of intervention could be stronger and more self-sustaining. Chapter 7 is about the ethical dimension to behavioural interventions, which again has attracted a lot of critical opinion, in particular about the consistency of the arguments Thaler and Sunstein have put forward, and the sense of unease people have felt about the way in which nudge appears to be manipulative and to reduce people's autonomy. Thinking about this problem leads to the argument for a more agent-centred version of nudge, which is the basis of the radical version argued for in this book. Chapter 8, called 'Nudge plus and how to get there', is a presentation of the central proposals of the book, which are about the potential for a more open, reflective, and decentralised form of nudging, with examples and a discussion of the potential for their use. Chapter 8 also contains a discussion of elite nudges and how these may be extended to a wider range of phenomena as part of bottom-up nudging. Chapter 9 is intended to pull the book together to answer the question 'How far to nudge?', taking into account practical limitations and the salience of politics. It comes to an overall assessment about the future potential of behavioural public policy.