ARTICLE

The Nudge agenda – possibly oversold and arguably underperforming

Fergus Neilson

In his second article for *BESS*®, Fergus Neilson explores whether nudging has delivered on its promise as a policy tool to influence citizens' behaviour since the concept was introduced by Thaler and Sunstein 16 years ago.

Introduction

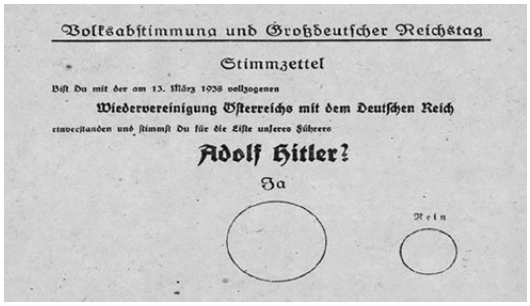
Building off the shoulders of giants,[1] the concept of nudging emerged as an influential policy driver after the publication of Thaler and Sunstein's well-received book.[2] Within a couple of years, the possibility of nudging citizen behaviour at minimal cost to government in directions thought to be of society-wide benefit was embraced enthusiastically around the world.

Yet, from the very beginning of modern government, what is now known as nudging has been a persistent component of the 'social messaging' aimed at modifying citizen behaviour at the lowest possible cost to government. In 2014–2015, the poster of Lord Kitchener barking 'YOUR COUNTRY NEEDS YOU' could not be considered a nudge, because the posters required considerable government expenditure. But individual self-righteous initiatives on the distribution of white feathers to men out of uniform in Britain in the early days of the First World War clearly was nudging. And

1. Tversky and Kahneman, 1974; Schneider and Ingram, 1990
2. Thaler and Sunstein, 2008

doubly cruel because it did not come with any announcement advising that justifiable exemptions might not be evident or apparent.

The voting paper handed out in 1938 to measure Austrian support for 'Anschluss' (the merging of Austria into Germany) included a crude nudge that involved making the 'Ja' (yes) tick-box more than twice the size of the 'Nein' (no) box[3]. Out of 4.3 million ballot papers recorded, just 11,281 were ticked 'Nein'.


Volksabstimmung und Großdeutscher Reichstag

Stimmzettel

Bist Du mit der am 13. März 1938 vollzogenen

Wiedervereinigung Österreichs mit dem Deutschen Reich

einverstanden und stimmst Du für die Liste unseres Führers

Adolf Hitler?

Ja

Nein

I would also argue that the use of 'soft power', as first promulgated by Joseph Nye and Robert Keohane in the 1980s, is a classic antecedent to 21st century nudging. They defined soft power as 'the ability to get what you want through attraction, rather than coercion or payment', including amplifying America's cultural appeal from 'Harvard to Hollywood'. And Joseph Nye still promotes soft power as a way for the US to exert influence without resorting to military adventurism or economic coercion.[4] Choices are available, costs to government are minimal and, so far, American soft power outweighs that of China.

Which leads, sixteen years after the publication of *Nudge*, to four questions: a) what is 'nudging', and does it deliver anything different from what 'persuasion' did before it was called nudging?; b) does empirical evidence suggest that nudging has not lived up to expectations?; c) does the apparent failure record of many nudge initiatives leave any room for confident application?; and d) what might it take, therefore, for nudging to be assured of an ongoing, realistic and productive role in the pursuit of promised policy outcomes for the future?

In answering these four questions, it is argued that many proponents of nudging have both over-promised and under-delivered. And while acknowledging that there are cases in which nudging does play a role in effecting productive behavioural change, it is also emphasised that the actual impact of a stand-alone nudging program is both restricted in scope and limited in 'half-life'.[5]

This article concludes by emphatically acknowledging that 'in general, evidence supports the conclusion that non-regulatory *(nudging)* or regulatory measures *(compulsion)* used in isolation are often not likely to be effective and that usually the most productive means of changing behaviour at population level is to use a range of policy tools, both regulatory and non-regulatory'.[6]

Question (a): What is 'nudging', and does it deliver anything different from what 'persuasion' did before it was called nudging?

Thaler and Sunstein, the 'godfathers' of modern nudging, state that 'nudges are private or public initiatives that steer people in particular direction but also allow them to go their own way … (including) … any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding options or significantly changing economic incentives'.[7] Nudges can also entail a

3. Thaler and Sunstein, 2021, p109
4. Mance, 2024
5. Half-Life is the time taken for radioactivity of specified isotope to fall to half its original value; or, in the case of government programmes, time taken before programme impact is down to half what was achieved immediately following implementation.
6. House of Lords, 2011, p36
7. Thaler and Sunstein, 2008, p6; Thaler, 2015

spectrum of activity from a simple reminder or a warning, to a physical cue, the provision of dietary information, or even clarification of signage.

Thaler and Sunstein argue that most people can be influenced by small changes in the context (such as the placement of food in school cafeterias); that such small changes can be put in place by 'choice architects'; and are legitimated by what Thaler and Sunstein choose to define as 'libertarian paternalism'. That latter concept being described by the authors as 'a relatively weak, soft and nonintrusive type of paternalism … (in which) … choices are not blocked, fenced off or significantly burdened'. Paternalism by which, in turn, choice architects 'are self-consciously attempting to move people in directions that will make their lives better'. Thaler and Sunstein go on to suggest that choice architects have a wide-scale responsibility to 'make major improvements to the lives of others by designing user-friendly environments'. Where environments can be activity space (offices, canteen or airport toilets), or interfaces (questionnaires or option selection lists) or private households (energy efficiency labelling). It is emphasised that any nudge program should ensure that costs and options and policy justifications are fully transparent to the intended consumer. 'As choices become more numerous … (or complex) … good choice architecture will provide structure, and structure will affect outcomes'. Thaler and Sunstein categorically state that their bottom line is that people are nudge-able. And in that context, they stress a strong aversion to coercion, advising that policy makers should 'favour nudges over commands, requirements, and prohibitions' … (because) … for government, the risks of mistake, bias, and overreaching are real and sometimes serious'.[8]

Finally, central to nudging's appeal to government is that 'many of these policies cost little or nothing … (and should) … impose no burden on taxpayers at all'. Thus, application by governments allows 'nudges … (to) … replace requirements and bans … (thereby ensuring) … that government will be both smaller and more modest' … (and) … 'will benefit from costs imposed … (that) … are close to zero'.[9]

In simple terms, nudges are 'subtle hints towards more favourable options without forbidding fewer desirable outcomes'.[10] Or 'any initiative that does not impose significant material incentives'[11] on the consumers, or impose any significant material cost on the responsible government institution.

It is these two characteristics – assumptions of easy implementation and low costs – that drove the emergence of nudging or behavioural modification as a now-widespread government response to post-GFC austerity.[12] Initial successes in the UK (and the promotional vigour of David Halpern, CEO of BIT) inspired the start-up, by 2020, of an estimated 135 behavioural insights units worldwide (although in some reviews, this figure is thought to be closer to 500).

Popularity of the concept was enhanced by the belief that a lot of public policy would be facilitated by 'citizen behavioural commitment'[13] and that, if the right choices were made available, citizen behaviours could be changed. Sodha highlights the point that this promise has been hugely attractive to politicians who saw (and see) nudging as a way to both achieve positive change and generate savings through low-cost policy application.

A 2019 World Bank report, *Behavioural Science Around the World*, highlights ten countries that are pioneering the use of behavioural insights:

8. Thaler and Sunstein, 2008, pp. 1-12, 104
9. Thaler and Sunstein, 2008, pp. 14-15, 249
10. Bovens, 2009
11. Sunstein, 2018, p. 62
12. Sodha, 2020
13. de Ridder et al., 2020, p. 9

Australia, Canada, Denmark, France, Germany, the Netherlands, Peru, Singapore, the UK and US. The report also states an expectation that Behavioural Insights Units will provide enhanced benefits to these and other countries, as new developments emerge out of artificial intelligence (AI), machine learning and virtual reality.[14]

As noted, the first and best-known Behavioural Insights Team (BIT), or 'nudge unit', was founded by the UK government in 2010. BIT is now a wholly owned unit of the innovation charity Nesta. The current BIT website urges prospective clients to 'discover how giving your clients a gentle nudge using research and data focused on human behaviour can help your business to scale within your industry'. The BIT website also claims completion of over 1,000 projects to date and showcases a number of recent initiatives, including peace building in Nigeria, understanding panic buying, encouraging sustainable commuting, reducing dangerous driving, and improving hygiene behaviours in Rohingya settlements at Cox's Bazar.[15]

BIT claims to 'have run over 780 projects to date, including 500 randomised controlled trials in dozens of countries over the past nine years – more than the rest of the UK government combined in its history. We have a wealth of insights and results to build on in continuing to shape policy and practice'.[16] Highlights include references to (in the UK):

1. increasing tax payments to bring forward £200 million extra revenue in 12 months;
2. reducing days on benefits by between 5 and 10 million each year after improving online systems for jobseekers;
3. reducing antibiotic prescription by 3–4% amongst the highest prescribing GPs, resulting in over 70,000 fewer prescriptions over a six-month period;
4. using text messaging to reduce by 150,000 the number of repossession interventions by bailiffs and saving £30 million;
5. adding 100,000 people to the organ donation register;
6. persuading 20% more people to consider switching energy provider; and
7. doubling the number of applicants to the British Army.

BIT claim that, overall, independent academic analysis in the US found that BIT's interventions improved outcomes by an average of 10% compared to business as usual.

In the US itself, the White House Social and Behavioural Sciences Team, established in 2015 during Obama's second term, operated to apply behavioural science in the pursuit of improvements to federal policies and programs for the benefit of the American people. The Team's second Annual Report (2016) presented the results of completed projects and describes ongoing efforts in eight key policy areas: promoting retirement security, advancing economic opportunity, improving college access and affordability, responding to climate change, supporting criminal justice reform, assisting job seekers, helping families get health coverage and stay healthy, and improving the effectiveness and efficiency of government operations.[17] However, in 2017 the Team was disbanded and its members moved to other departments, agencies and organisations. A productive result that is entirely in line with the conclusions of this article.

14. Afif et al., 2019
15. Behavioural Insights Team, 2012, 2023
16. Behavioural Insights Team and University College London, 2021
17. Social and Behavioural Sciences Team, 2016

The United Nations Development Program (UNDP) website declares that 'research in behavioural science – regarding how people make decisions and act on them, how they think about, influence, and relate to one another, and how they develop beliefs and attitudes – can increase effectiveness of not only programmatic interventions, but also overall organizational performance'.[18] The UNDP draws attention to the use of behavioural insights in ameliorating extremism in Sudan and Yemen; and to designing low-cost initiatives to combat violence against women in Egypt.

The Organisation of Economic Co-operation and Development (OECD) remains at the forefront of supporting public institutions to apply behavioural insights to improve public policy, including in its design, implementation and evaluation.[19] The OECD website states that 'behavioural insight is an inductive approach to inform policy makers of the human behaviours driving economic and societal outcomes'. The OECD also claims that nudging, where enhanced with experimentation and piloting and merged with insights from psychology, cognitive science and social science, does reveal how humans actually make choices and enhances policy outcomes as a result.

The World Health Organization (WHO) website states that 'the objective of the Behavioural Sciences for Better Health Initiative at WHO is to promote and enable the systematic use of behavioural and social sciences in public health across the work of WHO and that of its partners'. A special edition of the organisation's bulletin published in 2021 focused on the application of behavioural sciences to delivery of better health outcomes and included articles on changing hygiene behaviours, overcoming vaccine hesitancy and on nudging adolescent uptake of family planning.[20]

In Canada, nudging commenced in 2013 with the inauguration of Ontario's Behavioural Insights Unit (OBIU), which now claims successes including:

1. increasing organ and tissue donor registrations by 143% by making registration simpler;
2. providing employers with clearer instructions on how, where and when to file overdue statements, thereby increasing the number of tax returns filed within 10 days by 40%; and
3. improving citizens' recycling behaviour by testing different types of bin labels (the highest performing label increased organics recycling by 82%).

In 2012 and in conjunction with the UK BIT group, a Behavioural Insights Unit was set up in the NSW Department of Premier and Cabinet. In 2016, the state government of Victoria followed suit. Later in 2016, the Behavioural Economics Team Australia (BETA) commenced operation within the federal Department of Prime Minister and Cabinet. 'Policy areas where Behavioural Insight approaches have been applied … (in Australia) … are broadly consistent with trends in other countries … (with an) … emphasis on identifying low-cost measures to influence behavioural change'.[21]

The Australian Government unit claims completion of 14 trials thus far, including de-identifying job applications to prevent unconscious bias and reducing credit card debt through reminder emails with positive motivational messages. The NSW Behavioural Insights Unit has applied its skills to improving court attendance rates by delivery of personalised reminders to accused domestic abusers and, by using goal-oriented approaches, helping injured police officers in getting back to work sooner. Nudges have also been applied in education, health, financial services, urban planning and housing.

18. United Nations Development Program, 2023
19. OECD, 2023
20. WHO, 2021
21. Australia and New Zealand School of Government, 2021

In spite of all this activity and claimed successes, there has been an emerging flurry of studies and commentary suggesting that nudging has not lived up to its early promise. That it is, indeed, oversold and underperforming.

Question (b): Does empirical evidence suggest that nudging has not lived up to expectations?

Even Sunstein acknowledges that for five reasons nudging might be ineffective or less effective than expected:[22]

1. some nudges produce confusion on the part of the target audience;
2. some nudges have only short-term effects;
3. some nudges produce 'reactance' (though this appears to be rare);[23]
4. some nudges are based on an inaccurate (though initially plausible) understanding of what kinds of choice architecture will move people in particular contexts; and
5. some nudges produce compensating behaviour, resulting in no net effect, or (as in the case with marketing of highly processed foods) effects that undermine nudges with their 'counter nudges'.

There is no shortage of work supporting these concerns. Research led by Queen Mary University (QMU) of London 'has shown that despite the widespread use of behavioural interventions across society, failed interventions are surprisingly common'.[24] Specifically, the QMU researchers looked at failed behavioural interventions across all areas that impact society, from healthy eating and organ donation, to tax compliance. They showed that whilst any type of behavioural intervention, applied in any type of setting, could be at risk of failure, certain types of intervention were more likely to fail. Analysis of 65 articles published between 2008 and 2019 showed the highest likelihood of failure occurring where the behaviour of others is used in attempt to change behaviours of their peers; and where letters and text messaging were used to provide information.

De Ridder and his co-authors provide a critical review of three assumptions that lie at the heart of government enthusiasm for nudging, as opposed to education and persuasion (or coercion). The authors point to three failure points:[25]

1. imposition – nudges can too easily can slip into coercion or manipulation (particularly if the 'nudger' is parsimonious with its provision of information to the 'nudgee');
2. implementation – nudges do not lend themselves to easy implementation in public policy; and
3. impact – nudges have not necessarily proven themselves to be an effective means for steering individual choice in the right direction (behaviour is harder to change than expected).

Furthermore, it can be argued that nudging is not about helping people make better choices, but actually about getting people to make the choices that 'policymakers want them to make'.[26] Although this is not necessarily a problem, particularly if nudges promote ethically consistent goals through social policies that are supported by the general populace, questions still linger:[27]

1. Do people really know what they want and can we really know any individual's true preferences?

22. Sunstein, 2017
23. Reactance is the unpleasant motivational arousal that emerges when people experience a threat to or loss of their free behaviours. - Steindl et al., 2015
24. Osman et al., 2020
25. De Ridder et al., 2020
26. White, 2013, p. 83
27. Quintana Medina, 2021

2. Do governments have any legitimate understanding of what is 'better' for the population as a whole? (energy conservation, organ donation, tax compliance, etc.), or how best to manage public good vs private cost (and inequalities of cost distribution)?
3. Is it fair to interfere with people's decision-making and diminish their ability to make their own choices'?

At best, nudging seems to have a mixed record. There may have been some success in pensions and tax payments, 'but in other areas it has been a bit of a damp squib and overall … (its practioners exhibit a tendency to) … 'overclaim and overly generalise'.[28] Sonia Sodha concludes by pointing to the 'optimism bias of the behavioural tsars that has led them to place too much stock in their own judgement in a world of limited evidence'.

Stephanie Mertens and her co-authors delivered in 2021 what is claimed to be 'the first comprehensive analysis of past research on techniques aimed at changing citizen behaviour'.[29] Their research covered 212 published articles involving more than two million participants. At the core of these articles was the belief that nudging could influence people to make better decisions. However, subsequent peer review suggests that this may not actually be the case. The authors' work revealed that there was only very moderate significance in difference between nudged and not-nudged groups, as well as evidence of some negative influence from publication bias (cherry-picking for results that support the starting hypothesis).[30]

A more recent study suggested that the effect of nudge across the 212 projects was not moderate – it was actually zero – with the authors declaring that, after correcting for publication bias, there is 'no evidence for the effectiveness of nudges',[31] and that across behavioural science research initial results have not always been replicable. A paper published in 2020 by a couple of researchers from UC Berkeley looked at the results of 126 randomised controlled trials run by two 'nudge units' in the US (The Behavioural Insights Team and The Office of Evaluation Sciences).[32] The study revealed that the nudge trials had, on average, only 1.4% of the expected impact. This is much lower than impact of 8.7% predicted in behavioural economics literature. In other words, nudges are one-sixth as impactful as would be expected from the academic research.

The case for nudging has not been helped by recent high-profile claims of fraudulent data use and manipulation. This being only 'the latest blow to a field that has risen to prominence over the past 15 years'. Nudging is being called into question and concerns raised because a 'lot of results can't be reproduced and some of the underlying data has found to be faked'.[33] Much of the attention has focused on studies published (and now withdrawn) by Francesca Gino of Harvard. Her work suggested that 'people were more likely to report their income honestly when they signed a declaration of honesty at the start, not at the end of their tax return'. Peer review of the paper found no such outcome as well as some evidence of data alterations. In its year-end wrap-up edition, *The Economist* pointed to the continuation, through 2023, of 'the long decline in the prestige of the once-faddish field of behavioural economics'.[34]

28. Sodha, 2020
29. Mertens et al., 2021
30. Osman et al., 2020
31. Maier et al., 2022
32. Della Vigna and Linos, 2020
33. Jack and Hill, 2023
34. The Economist, 2023/24

However, nudges do still retain their appeal to policy makers because 'they promise people easy, cookie-cutter solutions to complicated problems … (thus) … it's no surprise … (therefore) … that governments and companies have spent hundreds of millions of dollars on behavioural nudge units.[35] It is also worth noting that Jason Hreha's online article on *The Death of Behavioural Economics* does not receive any bouquets from his peer group commentary. Rather, respondents broadly conclude that although there may be examples of dubious empirical research, the basic positive instincts of nudging remain solid.

Question (c): Does the apparent failure record of many nudge initiatives leave any room for confident application?

As has been pointed out, not only have interventions appeared surprisingly weak in practice, but also that many core findings of behavioural modification research have proven to be non-replicable. Many of the programmes aimed at nudging individual behaviour down more socially appropriate pathways have not revealed outstanding success. A selection of such programmes from university course reading, each one containing a nudge intended to drive or enhance a public good, is listed below and more fully described in subsequent paragraphs: increase prevalence of organ donation; reduce consumption of sugar-rich soft drinks; ameliorate crime and school dropout in Chicago; improve voter turnout in Manchester; deal with a growing obesity problem in the UK; introduce the UK Green Deal; raise British military recruitment numbers; and lessen rush-hour travel pressures in Sydney.

It is not clear that these programmes would have looked any different in the era of government persuasion before the emergence of nudging. Regardless, two questions must be asked: do any of them pose ethical issues? And do any of these programmes actually demonstrate a successful process that, in isolation, initiated a significant and lasting change of behaviour at the population level?

The very concept of nudge as a form of libertarian paternalism poses the risk of a nudge becoming an unethical shove. This question is at the centre of organ donation programmes that propose mandated choice as the most practical nudge for increasing donation rates. That is, unless the citizen actively 'opts out' of the process, then that citizen's organs are automatically deemed to be available for donation. Given the average citizen's inattention to the details of defaulting, this recommendation edges very close to a mandatory shove.

Kyle Whyte and his co-authors also claim that Thaler and Sunstein fail 'to appreciate how perceptions of meaning can influence people's responses to nudges' and argue, instead, for a policy 'of default to donation that is subject to immediate family veto power'.[36] Thaler and Sunstein, however, do go on to defend their position in *Nudge: The Final Edition*[37] and in Sunstein's rebuttal to sceptics in 2023.[38] Of which, more later.

But the issue remains: the possibility that nudging is rarely free of an element of compulsion or of the possibility that it is just another (potentially low-cost) tool of government or corporate manipulation of individual behaviour and choices that is not necessarily to the benefit of the individual citizen or even the population as a whole.

Most 21st-century nudging is not as crude as the 1938 election papers seeking a 'yes/no' vote on German reunification with Austria, as illustrated at the start of this paper. However,

35. Hreha, 2023 (NB: Jason Hreha is former Global Head of Behavioral Sciences at Walmart.)
36. Whyte et al., 2012
37. Sunstein, 2021
38. Sunstein and Edwards, 2023

effective manipulation is still commonplace. The invisibility of 'unsubscribe' options on websites, automatic inclusion on subscription renewals, the use of ambiguous party names (e.g., Australia's and Russia's Liberal Democrats) to capture the 'donkey vote', the closure or restriction of toll-free options to force commuters onto routes subject to road toll charges (Sydney City Tunnel), or the implied threat of bureaucratic sloth in delivery of travel visas that, conveniently, can be overcome by payment of a 'fast track' fee. All of them are nudges; but none of them necessarily pass 'the pub test'.[39]

Lodge and Wegrich also warn against the probability of nudges being politically driven by a bureaucracy pressured to deliver results on a limited budget.[40] Caroline Huyard warns that the 'handling … (of any nudge) … is ethically tricky.[41] The House of Lords warns that the existence of behavioural biases and limited understanding of the target group will ensure 'ethical and practical challenges in applying nudges'.[42] While Whyte and his co-authors conclude by arguing that nudges can be introduced ethically and effectively 'only if nudge designers collaborate with in-house coordinators and stakeholders'.[43]

In the same way that graphic pictures on cigarette packages and obesity warnings on food packaging inform the user of possible lifestyle risks, the prospective user of nudging should be made aware that it also carries risks. Risks that include the unequal distribution of benefits, the invasion of privacy, and further build-up of antipathy towards the perceived condescending and under-hand behaviour of government.[44]

In spite of possible ethical risks, every one of the examples of nudging initiatives covered in this section can be seen to have had some beneficial impact. However, it is suggested that in every case, either nudging was not the primary driver of success, or that the nudge effect was short-lived and that any ongoing beneficial effect would not have occurred without the continued application of often costly facilitation programmes and incentives.

In regard to organ donation programmes, while BIT claim that their nudging initiatives added 100,000 people to the UK organ donation register, Whyte and his co-authors also argued convincingly that long-term success was dependent on the ongoing operation and (expense) of 'organ procurement programmes and in-house transplant donation coordinators creating better environments for increasing the supply of organs and tissues obtained from cadavers'[45] and of regular calls for organ donation on television to make good any threatened shortfall in supply.

A short-lived programme to reduce the consumption of sugar-rich soft drinks (SSBs) by applying a 10 pence surcharge in Jamie Oliver's restaurant chain over a 12-month period did deliver an 11% decrease in the mean sales number of on-menu SSBs.[46] But the study authors themselves admit to concerns as to the limited transferability and sustainability of first-round benefits. The nudge effect did not last.

The *Becoming a Man Program* to ameliorate crime and school dropout in Chicago showed only mixed results, with some persistence of positive school attendance rates, but a very quick drop-off in any beneficial influence on arrests.[47]

39. In Australian politics, a notional measure for public opinion
40. Lodge and Wegrich, 2014
41. Huyard, 2016
42. House of Lords, 2011
43. Whyte et al., 2012
44. Spiegelhalter, 2012
45. Whyte et al., 2012
46. Cornelsen et al., 2017
47. Heller et al., 2017

An exercise to improve voter turnout in Manchester did deliver a 3.5 to 3.6 percentage point uptick in voter turnout.[48] Corrections for treatment and control effects pushed this up to around 7.0 percentage points, much in line with research on nudging voter turnout in Michigan.[49] However, it should be noted that the programme was delivered in Manchester's Wythenshawe and Sale East, an electorate with a lower than (national) average turnout in the 2001 General Election (48.6% versus 59.4%). The improvement was off a very low base in a safe Labor seat. And, by the following election, about half of the first-round improvements in voter turnout had evaporated.

There is an obesity problem in virtually every developing and developed nation in the world. In the UK, 30% of children between 10 and 15 years of age are classified as either obese or overweight. Britain's Campaign for Life (C4L) commenced in 2009 with a full-spectrum policy approach including advertising, inter-departmental cooperation, calorie count and food labelling across Britain. But review of the C4L campaign revealed that although it achieved an increased awareness of childhood obesity, it delivered little impact on attitudes or nutritional behaviour.[50]

The evident failure of nudge, or any other behavioural modification programme, is writ large in a recent newspaper headline: 'Confronted with the spread of obesity, Brazil strives to embrace its heavier self'.[51] Even though the proportion of Brazilians over the age of 20 who are classified as obese increased from 15% in 2000 to 29% in 2020, the nation has given up trying to control the obesity epidemic, despite its inevitable and costly impost on health care delivery. Behavioural modification has failed and subsequent protections for the obese are now enshrined in law.

The UK Green Deal was introduced in 2012 by BIT to help people adopt energy efficiency measures in their homes at no upfront cost. But this is not a nudge. The sceptic might label it 'greenwashing' on a national scale, as it involved financial incentives (discounts) to the homeowner and financial cost the government (as much as £11 billion). In Australia, one-third of homes have solar panels, not because they were nudged, but because they initially received over 60-cents/kWh/day for any electricity sold back into the grid and because they believed that climate change was real. However, the take-up of solar panels has fallen now that the Retailer Solar Buy Back Rate has been reduced to 11-cents/kWh/day.[52]

Through 2015–2016, a military recruitment campaign on British television, which has been highlighted as a BIT success story (see previous), claims to have doubled the number of applicants to the British Army. However, it is necessary to ask whether an expensive TV advertising campaign ('the medium') aiming to tempt potential recruits into an army that is no longer dependent on 'boots and shoots' but on technology and cyber-skills, is just a complete misdirection of public monies. In contrast, an ongoing TV campaign in Australia seeking the same end, military recruitment, has at its core a nudge that promises technical training for a future career in civilian life. In either case, however, the cost of television advertising should automatically exclude the activity as having any compliance with what Thaler and Sunstein define as a nudge. UK Army recruitment has been below target every year for more than a decade. Data uncovered recently by the UK Labour Party showed that Army recruiters signed up 5,560 regular soldiers in 2023 as against a target of 8,220, leaving a shortfall of 2,660 personnel. Nudged or not, recruitment aims were not achieved.

48. John et al., 2019
49. Gerber et al., 2008
50. Croker et al., 2012
51. Nicas, 2022
52. Personal household billing at 26 January 2022

Therefore, it is argued that only one of these eight examples of nudging comes close to meeting the principles of nudging as espoused by its champions. That would be a Travel Choices programme aimed at shifting Sydney CBD commuter behaviour out of the traditional peak hour traffic periods. The programme used a multi-pronged approach and did include one element which was a classic nudge. That was to persuade Microsoft to change the default settings on its Outlook Calendars to subtly nudge people into avoiding early and late meetings and thereby travel at less congested times. However, this was only one component in a much more extensive multi-methods programme (and was subject to much public and media derision).[53]

These examples affirm the point made by the House of Lords report in 2011, and repeated in the conclusions to this article that 'nudging does not, when applied in isolation, deliver on promise'.[54] If sustained change is the aim of any programme, then nudging will need to be just one of possibly many elements working in mutually supporting ways to achieve the intended outcome.

This is a conclusion in stark contrast with the confident assertions from an interview with Thaler and Sunstein, in which they claim that as long as it is fun, achieves its aim (however modest), maintains freedom of choice, and is free of 'sludge' [55,56] … 'then nudging will have a growing and productive role in the way we live'.[57]

In a more recent interview, Sunstein states that regardless of questions of data tampering and replicability, he believes that most critics have misunderstood the core aims of nudging.[58] He defends the value of nudging by pointing out that much of the criticism is directed at the failure of nudging to deal with global issues such as climate change, obesity and poverty. Sunstein argues that global issues are not the point of nudging. What is the point, he emphasises, is the use of nudges to help individual citizens make better decisions without infringing on individual freedoms (at the personal level). And that, when properly applied, they do preserve freedom of choice and allow people to go their own way.

Sunstein also points to recent work by researchers at Imperial College London showing that health-related nudges were responsible of a 15.3% increase in healthier diet and nutritional choices. He reminds sceptics that Amsterdam's Schiphol international airport was able to use the theory of nudges to get men to aim better at the urinal. By placing fly-shaped stickers in urinals, men focused on more on where they were aiming, bringing down the costs of cleaning by 80%.

Nor is nudging deemed to be unethical way to encourage behaviour change. Sunstein states that 'providing information which might influence or extend choices is not illiberal … as long as the freedom to choose is maintained … (and that) … automatic enrolment can be a blessing, as long as opt-out remains possible'. He also remains adamant that 'all over the world, behavioural economics has led to massive economic savings, and also massive savings in terms of reduced deaths, accidents, and illnesses … (including) … road safety, smoking cessation, and poverty reduction, where just one automatic enrolment policy in the US is helping millions of poor children to receive free school meals'.[59]

53. Transport for NSW, 2018
54. House of Lords, 2011
55. Sludge - administrative barriers that stop us from getting things done.
56. Sunstein, 2021
57. Fusaro and Sperling-Magro, 2021
58. Sunstein and Edwards, 2023
59. Sunstein and Edwards, 2023

This, in a way, undermines the implied focus of nudging on individual level behaviour change, rather than global shifts. However, it does reinforce the perspective that affecting global or society-wide change requires longer-term application of a rich process of complementary initiatives, including compulsion, facilitation, and information/education as well as persuasion/nudging.

Question (d): What might it take, therefore, for nudging to be assured of an ongoing, realistic and productive role in the pursuit of promised policy outcomes for the future?

Tobacco smoking is the leading cause of preventable death in Australia, with an annual net cost to the nation in financial year 2015-2016 of around A$137 billion, comprising A$19.2 billion in tangible costs and A$117.7 billion in intangible costs. Intangible costs are the impact of lives lost and pain and suffering caused by smoking-attributable ill health (A$25.6 billion), and premature mortality (A$92.1 billion).[60] These costs significantly outweigh the tax revenues of around A$14.3 billion derived from cigarette and tobacco sales in tax year 2020-2021.

Reducing these costs to government, families and individuals has required more than thirty years of concerted effort. What is clear is that driving the change from 1991, when 25% of Australian smoked on a daily basis, down to the current rate of around 11%,[61] took more than the nudge that stashed cigarettes and tobacco products behind opaque cupboard doors in corner stores and groceries. It took increasing the price of a pack of Winfield Blue 30s from under A$5.00 in 1980 to A$54.95 in 2023. It took the prohibition on television and sports events advertising of cigarettes. It took the subsidised provision of nicotine patches and counselling, and it took thirty years of social opprobrium heaped on the habit through health messaging on cigarette packages and the prohibition on smoking outside government office buildings. And, in New Zealand, it might have taken the now reversed government ban on cigarette sales to anyone born after 2008, and the gradual extension of the 'born after' date to eventually cover the entire population.

The prevalence of drink-driving in road deaths in the UK has fallen over time. In 1979, 26% of road deaths occurred in accidents where at least one driver/rider was over the drink-drive limit. This had fallen to 16% in 1988 and, by 2018, to 13%. Over the same time period it is reported that drink-driving accidents fell from 8% to 5% of total reported accidents.[62] This important change was not driven by a nudge to self-administered breath-testing in the pub. Rather, it is the result of long-term social pressure, advertising on television, the ubiquity of random road-side breath testing, and the very real threat of fines, bans and jailing.

It should also be noted that the nudge-only 'Get-Out-To-Vote' programmes in Michigan[63] and Manchester[64] had limited and only short-term impacts on voter turnout. Evidence (and home team bias) from Australia suggests that democracy is enhanced by higher (compulsory) levels of voter turnout; but also acknowledges that it will require more than a nudge to move a complacent

60. Whetton et al., 2019
61. Australian Institute of Health and Welfare, 2021
62. Department of Transport, 2020
63. Gerber et al., 2008
64. John et al., 2019

electorate. It will require a comprehensive 'toolbox' of interventions and effective cooperation across a range of institutions.

By creating a matrix that combines the concepts of 'digital tools' and 'policy tools', it is possible to configure a 'toolbox' of practical interventions for increasing voter turnout that operationalises nudging in a supportive, but not central, role. However, it is emphasised that in a matrix of 20 possible tools, just three could be considered nudges:

1. The application of commitment devices (an acknowledgement that something will be done, often leads to it being done);
2. The careful framing of questions to be asked (wording, ordering, explanation); and
3. Use of peer group and/or social pressure (conformity can be contagious).

The remaining 17 initiatives involve compulsion (seven tools), facilitation (six tools) and information (four tools). See Table 1 below.

TABLE 1: Behaviour Modification Matrix – making a significant change to voter turnout*

	Digital Tools[65]			
Policy Tools[66]	**Authority**	**Treasury**	**Nodality**	**Organisation**
Authority	Mandatory voting[67]	Penalties[68]	On-line intervention	Electronic voting systems[69]
Incentives	Fines for incorrect ballot or voter details	Election expense funding	Electoral Commission independence	Mobile booths, access maps ad 'busing'
Capacity building	Gerrymander constituency boundaries	Saturday or national holiday voting	Absentee voting and extended early voting	Government marketing and advertising
Learning	Political Conduct Codes[70]	High school civics education	Door-to-door canvassing	Commitment devices**
Symbolics	PM and her husband voting together at the polling booth	Constituency mail shots and tele-marketing	Careful framing of the questions to be asked	Peer & social pressure/ neighbour knowledge

* Compulsion Facilitation Information Persuasion (aka nudging)

** A commitment device is any action that requires a respondent to admit / commit to doing what comes next – vote, diet, revise pension plan, etc.

65. Hood and Margetts, 2007
66. Schneider and Ingram, 1990
67. Harvard, 2007
68. Balch, 1980
69. Rawat and Morris, 2022
70. Keane, 2009

Conclusion

Nudge has not failed to live up to deliver on its promise. It is just that its promise has been overblown by some of its champions in government, and the term 'nudging' has been taken to include activities and techniques that fall well outside the quite limited scope that is still supported and promoted by Thaler and Sunstein.

The Behaviour Modification Matrix (see Table 1) emphasises the point that, if nudging is seen as an adjunct to committed and multi-faceted programmes of behavioural modification, it may achieve its modest promise. Where broad policy is the primary aim, nudging can certainly be effective as one element in support of that aim. If, on the other hand, nudging is expected, in isolation, to deliver significant long-term population-wide change, then it has evidently failed, operationally and ethically. Nudging is not a 'silver bullet' and can only be effective as one component in a coordinated series of inter-institutional interventions across a spectrum of programmes that include compulsion, facilitation and information, as well as persuasion – the nudge itself – and which are all targeted at achieving the same socially supported change.

It might be rational, therefore, for governments to support 'nudging' skills across all government departments to ensure the integration of nudging with other policy tools, rather than having a standalone nudge unit seeking to make changes in isolation. Perhaps the break-up of the White House Social and Behavioural Sciences Team and the redistribution of its members into other departments, agencies and organisations is a model worth replicating elsewhere.

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