

## **Nudge: You're being manipulated – have you noticed?**

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*A mass experiment is under way to change your behaviour for the better. If it's working properly, you've probably barely noticed.*

DID you hear the one about the flies in the toilet? They took off, flew round the world, and started a revolution.

It was 1999, and the authorities at Schiphol Airport in Amsterdam were looking to cut costs. One of the most expensive jobs was keeping the floor of the men's toilet clean. The obvious solution would have been to post signs politely reminding men not to pee on the floor. But economist Aad Kieboom had an idea: etch a picture of a fly into each urinal. When they tried it, the cleaning bill reportedly fell 80 per cent.

Amsterdam's urinal flies have since become the most celebrated example of a "nudge", or strategy for changing human behaviour on the basis of a scientific understanding of what real people are like – in this case, the fact that men pee straighter if they have something to aim at. The flies are now, metaphorically, all around us.

Governments across the world are increasingly employing nudges to encourage citizens to lead healthier, more responsible lives. Chances are you have been nudged, although probably without realising it. So does nudging work? And should we accept it?

To understand the nudge revolution you have to go back to the 1980s, to the heyday of a branch of economics known as the Chicago School, after the University of Chicago economics department where it started. Its fundamental principle was "rational choice theory": when people make choices, they exercise near-perfect rationality. They logically weigh up incentives such as prices, taxes and penalties in order to maximise their own economic interests.

Rational choice theory was hugely influential, picking up Nobel prizes and providing the intellectual foundations for neoliberalism. But there was a problem: it was deeply flawed.

Imagine you are given £100 and told that you can keep it, as long as you give some of it to a stranger. The stranger knows the deal, and can reject your offer – in which case you both get nothing. Rational choice theory predicts that strangers will accept whatever you offer: even a small gain is better than none. In reality, however, people make surprisingly large offers, and strangers often reject ones that do not appear fair.

Why is this? In a nutshell, because real humans are not coldly rational. Although we are motivated by money, we are also motivated by other things, such as social norms and the concept of fairness. We don't like to appear greedy, even to strangers, and we would rather punish a derisory offer than accept it.

Insights like this led to a new way of thinking called behavioural economics. This "science of choice" documented the many ways real people deviate – often wildly – from rationality.

One of its most important insights is the idea that we have two systems of thought: System 1 is fast, automatic and emotional. System 2 is slow, effortful and logical. The coexistence of these two systems is the key concept of dual process theory, which won Daniel Kahneman of Princeton University the Nobel prize in economics in 2002.

The fast-thinking system has been likened to an inner Homer Simpson; the slow, methodical system, to an inner Mr Spock. System 1 doesn't stop to think: it just does. It reacts on the fly and jumps to conclusions. System 2 is the opposite. It is a thinker, not a doer. It is what we use to solve complex tasks that require attention and reasoning.

When it comes to decision-making, system 2 generally produces better outcomes. But attention, concentration and reasoning are finite resources. So most everyday mental tasks are left to system 1, leaving us wide open to errors.

Answer this question as quickly as you can. Fish and chips cost £2.90. A fish costs £2 more than the chips. How much do chips cost? System 1 instantly shouts out an answer which feels right: 90p. It takes deliberation to arrive at the correct answer, which is 45p.

Numerous other biases and flaws are also at play. We are swayed by social pressures and will often follow the herd instead of making decisions to suit ourselves. We procrastinate and tend to choose the path of least resistance. We value short-term pleasure more than long-term success. We are "loss averse", meaning the pain of losing something is greater than the pleasure of gaining it. We favour the status quo even if it is not in our best interests, and are easily influenced by irrelevant information.

This ragbag of flawed thinking is responsible for all sorts of poor choices in life, such as giving in to temptation, failing to save for retirement, sending angry emails and making ill-advised purchases. It is why well-laid plans to eat more healthily, exercise more and drink less often come to naught. It is, in short, what makes us human.

Encumbered by all these biases, the human mind looks anything but the orderly decision-making machine envisioned by rational choice theory. But in a funny way, it is. Our minds are biased and flawed, but in a systematic way. Human behaviour is irrational, but predictably so.

It is this predictability that convinced behavioural economists that it should be possible to change behaviour. And so the concept of nudge was born.

The idea came to widespread public attention in 2008 when two social scientists at the University of Chicago wrote *Nudge: Improving decisions about health, wealth and happiness*. Richard Thaler and Cass Sunstein had been working for years on how to apply behavioural economics to policy. The book became a surprise bestseller, and won some influential advocates.

The main tool of nudging is "choice architecture", or the way in which options are presented. Whenever you make a decision, from the mundane to the potentially life-changing, choice architecture is at work.

Every time you go into a restaurant or shop, fill in a form, visit a website, read a newspaper, vote, turn on the TV, or do any number of everyday activities, you encounter choice architecture. Much of this is incidental, and some you even create yourself, as when you stock up with food – if you haven't got chocolate and sweets in the cupboard, you're less likely to indulge in them because doing so would require a trip to the shop. But some is deliberately created by other people – often with the intention of exploiting your biases.

Supermarkets are the experts at this (although they don't call it nudging). They greet you with the smell of baking bread, place the most profitable brands at eye level and put chocolate next to the checkouts. The intention is that you cave in to temptation and end up buying things you didn't intend to.

None of this is news to retailers trying to separate you from your money. But only recently have public authorities woken up to the power of choice architecture, and the possibility of redesigning it to nudge people towards doing the right thing. The "right thing", of course, is a value judgement, but is usually defined as the option people would have chosen if they were not burdened by biases (although who gets to decide is a bone of contention – see "When does persuasion veer into coercion?").

In practice, nudging can mean all sorts of things. Many decisions in life are dictated by a default option, where a choice is made for you unless you opt out. Some countries, for example, automatically register citizens as organ donors. It is easy to opt out, but most people do not get round to it. Many nudges simply reverse a default option.

Similarly, if getting people to do public-spirited things is difficult, they can be nudged by applying social pressure. A good example is voting. Informing people about high turnouts in their neighbourhood can encourage them to go out and do their civic duty.

The common thread running through all these strategies is that they do not use orthodox economic incentives like taxes, fines and rewards. According to the working definition of nudges laid out by Thaler and Sunstein, anything that reaches for these policy tools does not qualify.

Consider the very real problem of excessive drinking. Increasing the price of alcohol might reduce drinking, but that isn't a nudge. A nudge would be telling people how much other people drink on average, or prompting pubs to sell beer in two-thirds-of-a-pint glasses as well as pints, on the understanding that if you give people a big portion they will probably consume it even if they don't really want to.

Perhaps most importantly, nudges must be "freedom preserving", which means people remain at liberty to make the wrong choice. You can still drink pints if you want and nobody will tell you that you can't.

That element is what makes the nudge approach so very attractive to politicians: it does not involve bossing people about or enacting new legislation. That is largely why Thaler and Sunstein's ideas found an eager audience on both sides of the Atlantic – and on both sides of the political divide.

### **Big Brother is nudging you**

In 2009, President Barack Obama's administration appointed Sunstein to run the Office of Information and Regulatory Affairs (OIRA), a powerful agency within the White House that scrutinises federal regulation to make sure the benefits outweigh the costs.

And when the UK's coalition government came to power in 2010, the prime minister David Cameron created the Behavioural Insights Team – nicknamed the Nudge Unit – to put nudge theory into practice.

Sunstein was head of OIRA until 2012. During his time there he helped to bring about what he calls a "large-scale transformation of American government". Using nudge theory he and his team changed the way Americans eat, use energy, save for retirement and more (see "Inventing the nudge").

The UK nudge unit claims similar successes. Anyone applying for a driving licence now has to answer the question "Do you wish to register as an organ donor?". People are free to say no, but by changing the default option – to keep people off the register unless they seek out registration – the unit eventually expects to double the number of voluntary donors to about 70 per cent of the population.

David Halpern, the unit's director, says their biggest success is in recovering unpaid tax. People who owe money now receive a letter telling them (truthfully) that most people in their area pay their taxes on time. This social nudge has increased compliance from 68 per cent to 83 per cent.

The unit also quintupled the uptake of a failing attic insulation scheme by adding a free clearance service. It was not that people wouldn't pay to have their attics insulated, they just couldn't be bothered to empty them out first. Overall, Halpern claims that his unit's initiatives have already saved hundreds of millions of pounds.

Off the back of these successes, nudging has spread like wildfire, with governments across the globe – including Australia, New Zealand, France and Brazil – joining in.

Taken individually, nudge-based success stories may seem trivial. But there is a lot more to come. "We're very much at the beginning of the road, there's a great deal of scope for more," says Halpern. The UK unit has been given a remit to expand its activities across all areas of government and also to take on paying clients. Sunstein similarly says that what they have done in the US is the "tip of the iceberg".

As the strategy is rolled out more widely, the cumulative impact could become enormous. With nudges applied to policy problems in all aspects of public life, some economists anticipate incremental transformation of societies like the UK and US into "nudge states", or "au pair states" (like the nanny state but less bossy).

Will all of this lead to better societies? Advocates of nudging are adamant that the science is on their side. The UK unit tests its interventions in randomised trials before rolling them out – both to see whether they work and whether they are socially acceptable. In the US, too, Sunstein insists that "everything we did was based on evidence".

Even so, concerns remain. Theresa Marteau, director of the University of Cambridge's Behaviour and Health Research Unit, and an adviser to the UK unit, has trawled the scientific literature for data on nudges used to change health-related behaviour, such as diet, alcohol consumption, smoking and physical activity. She says the evidence for effective nudges is largely absent. That is not to say they cannot work, because clearly they can in some circumstances. "But the question is, which interventions are most effective at changing which behaviours?"

There are fears that certain nudges might even prove counterproductive. For example, there is some evidence that when foods are labelled as healthy or low fat, it is taken as licence to consume more, Marteau says.

But perhaps the most serious obstacle to the nudge revolution is public acceptability. Although nudges are intended to be helpful and preserve freedom, many people feel there is something sinister about interventions designed to change their behaviour without them necessarily realising it.

Marteau accepts that people often dislike the idea that they are being nudged. But she points out that they are anyway, and often by people who don't have their best interests at heart. "I think it is born of a lack of understanding of how all our behaviour is being shaped the whole time by forces outside of our awareness."

And so the question is not "do you want to be nudged?", but "who do you trust to do it?"