



# Why Behavioral Insights

- Decades of behavioural research - people often do not act according to the traditional economics-based decision-making model
  - Individuals assumed to be forward-looking, possess unlimited computational ability, and unaffected by context or emotions
- Organizations mistakenly expect stakeholders to make decisions using this approach -- good strategies don't always produce desired behavioural change
- Neuroscience, Psychology tells us how real people act
- Can we design better products, services, and programs – key insights to apply in domains

# Earlier approach

- People only respond to price incentives (e.g. ought to increase the price of cigarettes to curb smoking or the price of sweet food to combat obesity).
- Effective approach would be to take such behavioural features into account
- Kahneman's Thinking, Fast and Slow
  - Kahneman, a psychologist, awarded the 2002 Nobel Prize in economics
  - decision-making challenged the assumption of perfect rationality prevailing in neo-classical economic theory
- Thaler and Sunstein's – Nudge

# (Ir)rational human behaviour?

- Subject to several cognitive biases (overconfidence)
- Care about themselves and also about others
- Have conflicting long-term and short-term preferences (want a high income upon retirement and a high current disposable income)

# (Ir)rational human behaviour?

- Seek to avoid losses to a far greater extent than they prefer equivalent gains (loss aversion)
- Exhibit an availability bias- Overestimate the probability of high-impact and vivid but unlikely events, and get over-insured accordingly
- Information and choice overload- struggle in contexts where they are provided with too much information or face too much choice

# When choice is demotivating and paralysing

- Neo-classical economic theory
  - consumers are better off when presented with numerous different products and services to choose from.
- Increased options stem from increased competition
  - considered as the best form of consumer protection.
- Choice overload - detrimental to consumers.
  - E.g., in the UK, mobile tariff schemes roughly 12 million options, consumers constantly faced with an excess number of choices
- Consumers fail to make the best of the market when their choices do not match their real preferences, do not simplify their lives, like GPS, automatic settings for devices
- Need to recognise that human behaviour – together with other factors - affects outcomes such as physical health, long-term unemployment and tax compliance, apply behavioural sciences to design better policies

# how people actually make choices

Understanding of human behaviour - to deliver targeted and effective policy solutions

New forms of intervention, complementing traditional approaches,  
Initiatives that are

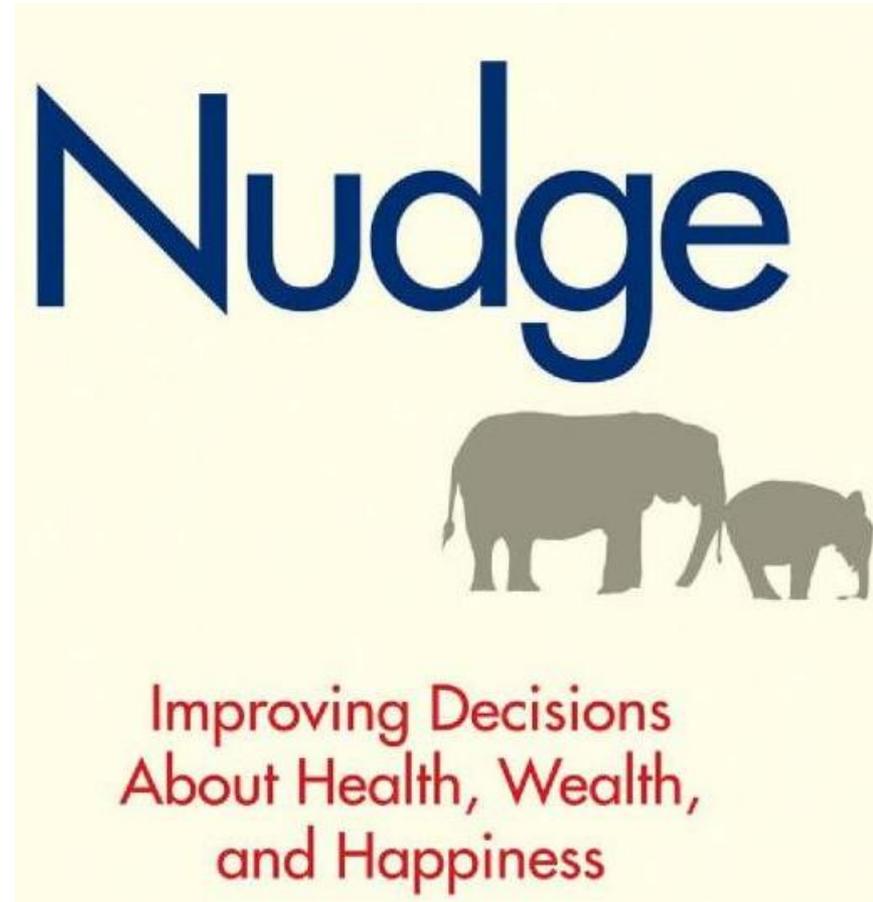
- behaviourally-tested (based on an ad-hoc test, or scaled out after an initial experiment),
- behaviourally-informed (designed explicitly on previously existing behavioural evidence) or
- behaviourally-aligned (found to be in line with behavioural evidence)

# Behavioural Economics $\neq$ Behavioural Insights $\neq$ Nudging

- Behavioural economics, BIs, and nudging are sometimes used as if they have the same meaning and reach. Although connected, fundamentally different
- Behavioural economics - discipline that applies psychological insights into economic behaviour to explain economic decision-making
- Behavioural Insights : result from multidisciplinary research in fields such as economics, psychology and neuroscience, to understand how humans behave and make decisions in everyday life

# Behavioural Economics $\neq$ Behavioural Insights $\neq$ Nudging

- Nudging - defined by Richard Thaler and Cass Sunstein as *“any aspect of the choice architecture that alters people’s behaviour in a predictable way without forbidding any options or significantly changing their economic incentives”*
- Nudging is one of the several behavioural techniques - direct people towards "better choices," without using bans or other expensive and time-consuming alternatives



# BIs go well beyond nudges

- Nudging is an intervention (i.e. an **output of the policy process**) that modifies the choice architecture - alters people's behaviour in a predictable way, while preserving the same range of choice options
- BIs represent an **input to the policy process**, and can be fully integrated with and inform other traditional forms of intervention (i.e. regulations, incentives, information requirements)
- As an input to the policy process- do not warrant a specific type of output, and indeed sometimes suggest that no intervention, or a conventional one, is the best solution

# kids love to ask “why”

- People in line to photocopy were asked three variations of the same request

REQUEST	PEOPLE WHO COMPLIED
<i>“Excuse me - I have five pages. May I use the Xerox machine?”</i>	<b>60%</b>
<i>“Excuse me - I have five pages. May I use the Xerox <u>because</u> I’m in a rush?”</i>	<b>94%</b>
<i>“Excuse me - I have five pages. May I use the Xerox <u>because</u> I have to make some copies?”</i>	<b>93%</b>

# Effects of price on drinks purchases

## State of Victoria, Australia

- 6 months trial
- Half of the vending machines in the hospital - increased the price of these high-kilojoule, 'red' category drinks and half kept the old prices

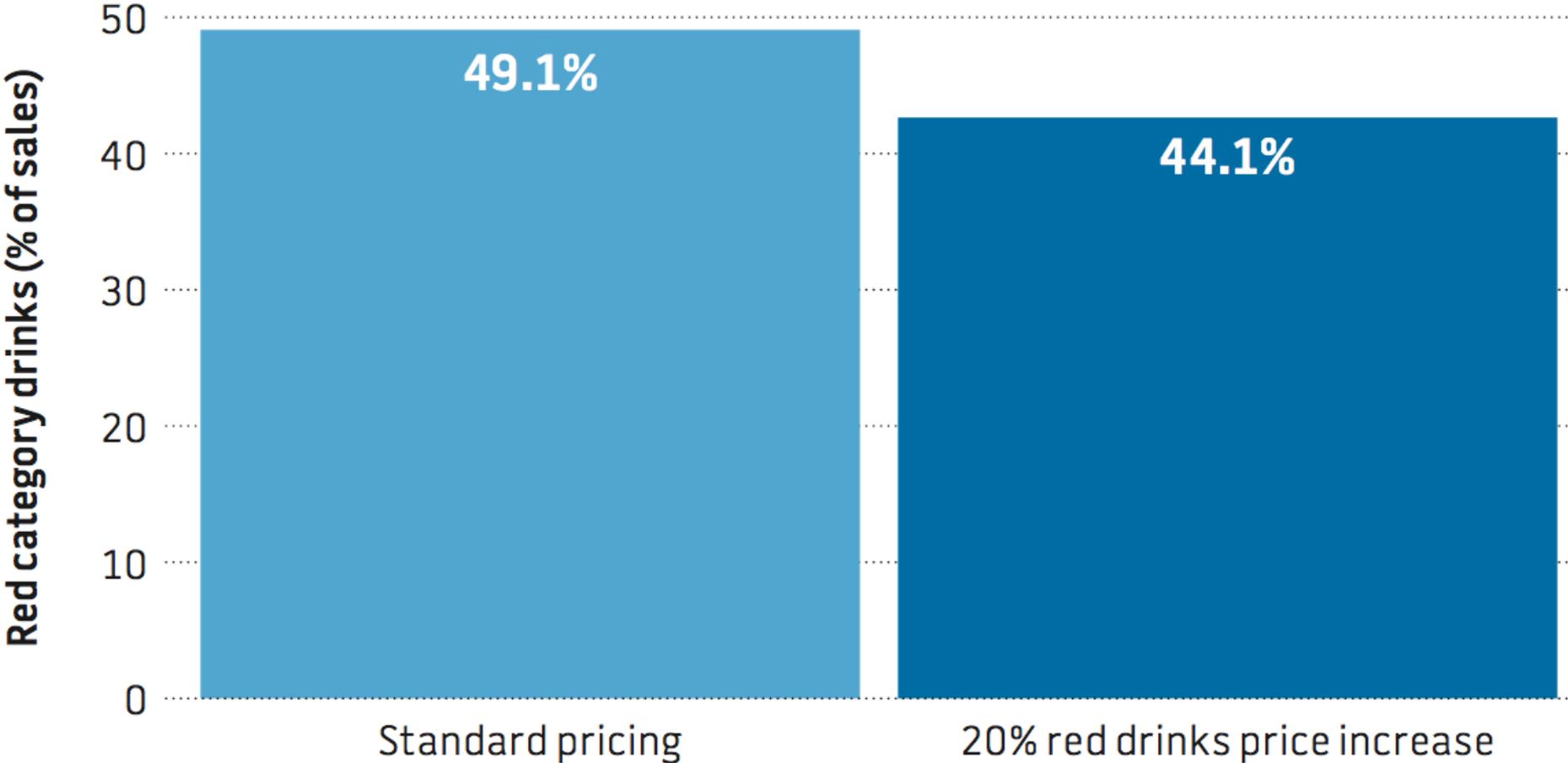


- 20% 'tax' on sugary drinks led to a 5 percentage point decrease in purchase (consumers switched to non-sugary drinks).



- No significant impact on sales: revenue was maintained.

# Effects of price on drinks purchases



# Social conformity

Small changes to letters sent out by HMRC, UK

Nine out of ten people pay their tax on time.

Dear Sir/Madam

Date of issue 4 August 2011  
Reference REFERENCE NUMBER

Please pay £999999999999.99

Our records show that your Self Assessment tax payment is overdue.

Nine out of ten people pay their tax on time.

It is easy to pay. Please call the phone number above to pay by debit card, credit card, or Direct Debit.

You can also pay using internet and telephone banking. For more information on when and how to pay, go to [www.hmrc.gov.uk/payinghmrc](http://www.hmrc.gov.uk/payinghmrc)

If you don't believe that this payment is overdue, please contact us on the number above.

If you have already paid, thank you. If not, please act now.

Yours faithfully

Officer of Revenue and Customs

IDM599P

HMRC 10/10

Added £200 million within 12 months

# BI accelerate tax payments

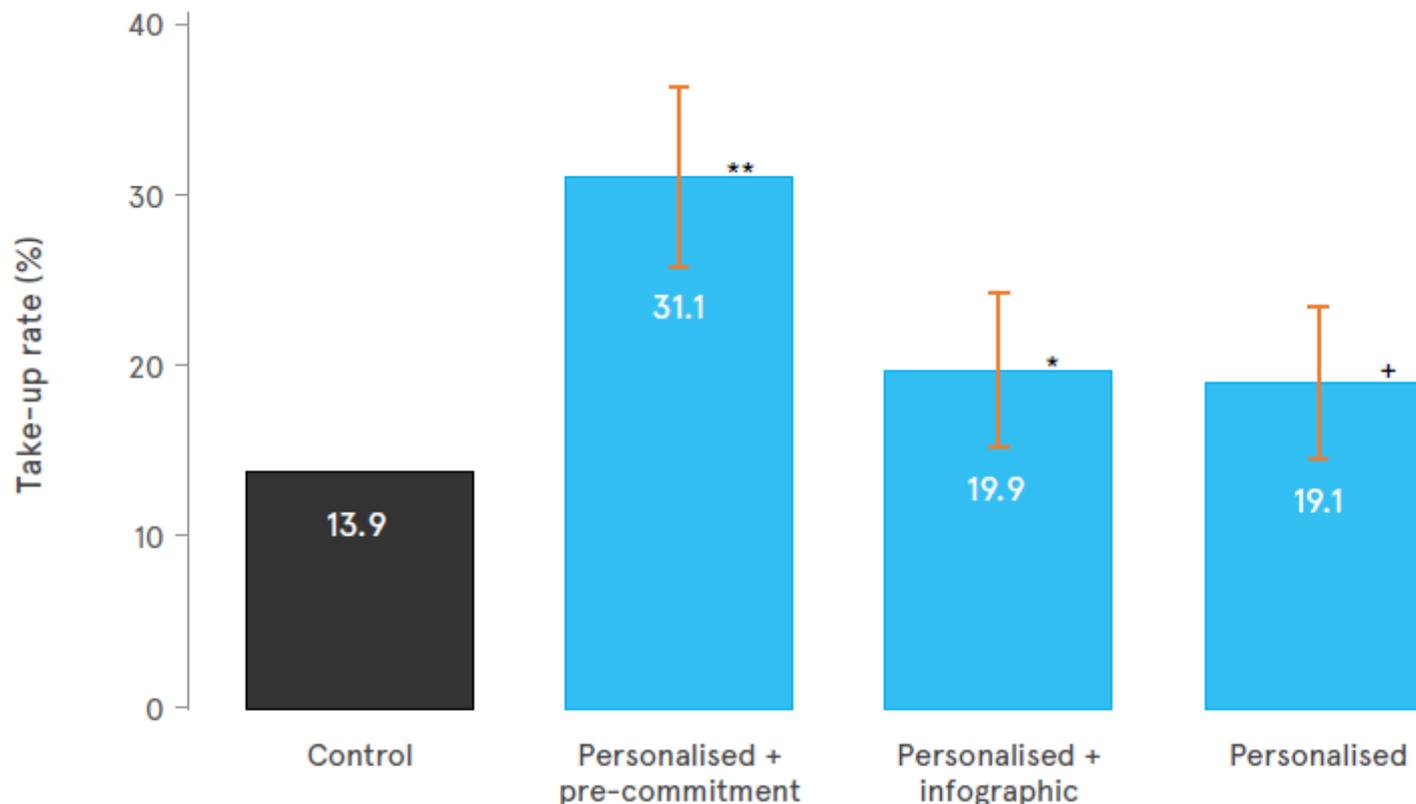


## Prime Minister's Office and the Inland Revenue Authority of Singapore

- People fail to pay on time - sent a 'Demand Note' letter
- New messages designed based on previous behaviours
  - Segment first-time offence versus serial offenders- run a series of tests for each segment, and test the 'business as usual' letters (which varied in severity) against a range of behaviourally-informed ones
- Result: Redesigned letters increased payments, between 1.7 and 6.4 percentage points, within 44 days across each segment

# “We have reserved a place for you”

- Singapore Ministry of Manpower’s trial to increase retirement savings decisions
- Doubled attendance using the phrase: “We have reserved a place for you” (this is the ‘Personalised + pre-commitment’ bar)



# Receipt-based tax lotteries

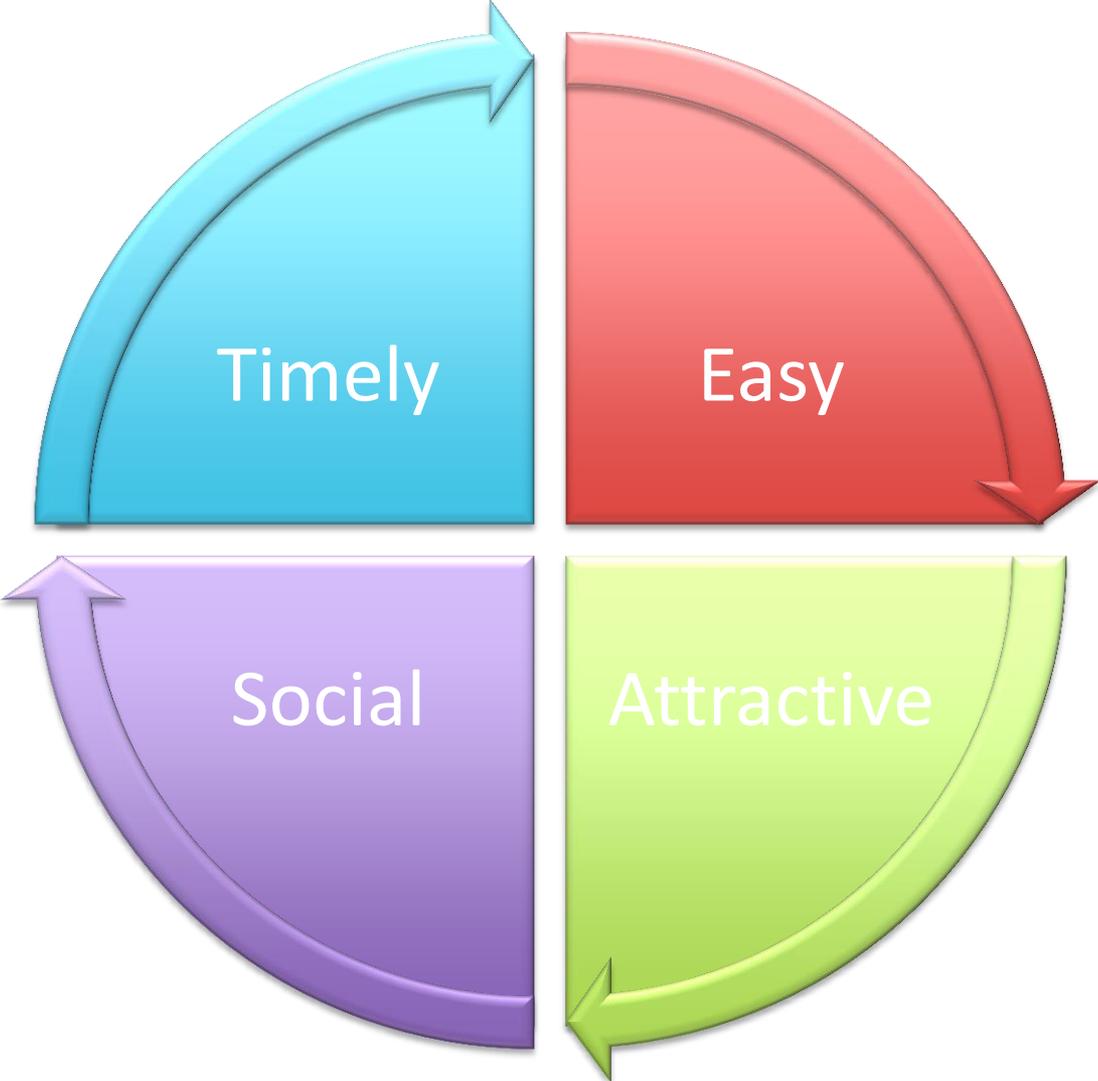
- Businesses failing to provide receipts to its customers, sign of VAT tax non-compliance - receipt-based tax lotteries to increase tax compliance
- Tax payment receipt works also as a lottery ticket
- Leverage insights from behavioural sciences - that individuals overweight small probabilities in their decision-making
- Lotteries introduced in Malta (1997), Slovakia (2013) and Portugal (2014), Romania and Poland (2015), Slovenia (2016)

# Behavioural Insights for Education

- Policymakers focused on big ‘structural’ factors, such as class sizes or budgets,
- Behavioural scientists - details of what parents, teachers and school leaders say and do.
- Providing effective feedback- two kinds of grades, personal input by teacher

English essay grade	Grade awarded	Potential grade
A		
B		B
C		
D	D	
E		
F		
G		

# How and why do insights work: EAST



# How and why do insights work

- Behavioural slant of most policy initiatives is not visible
- Insights presented – facilitate better understanding of the context and ways through which
  - a given policy issue can be tackled
  - behavioural element (biases and/or levers) underlying given policy initiatives
- At times, policy-makers explicitly took into account behavioural biases - such as information overload, overconfidence, loss aversion - when designing appropriate policy solutions

# Metaphors: processed faster and stay engaged

- Behavioural Science shows - when we hear metaphors, we live them out in our brain
- Mirror system: the way we understand an action - by recreating it in our visual and motor system
- **How to do this in design:**
  - First, identify the goal
  - Make the product or service tangible for them
  - Think of how it can be textural (visual and tactile quality)
  - Include it in the intervention

# Identifying shared commonality creates trust

- We like, trust, and listen to people who are similar to us
- Commonalities create fast friendships
  - can also be used to create persuasion
  - Bonding with someone with a unique similarity to us helps us fit in and stand out
    - two things humans crave

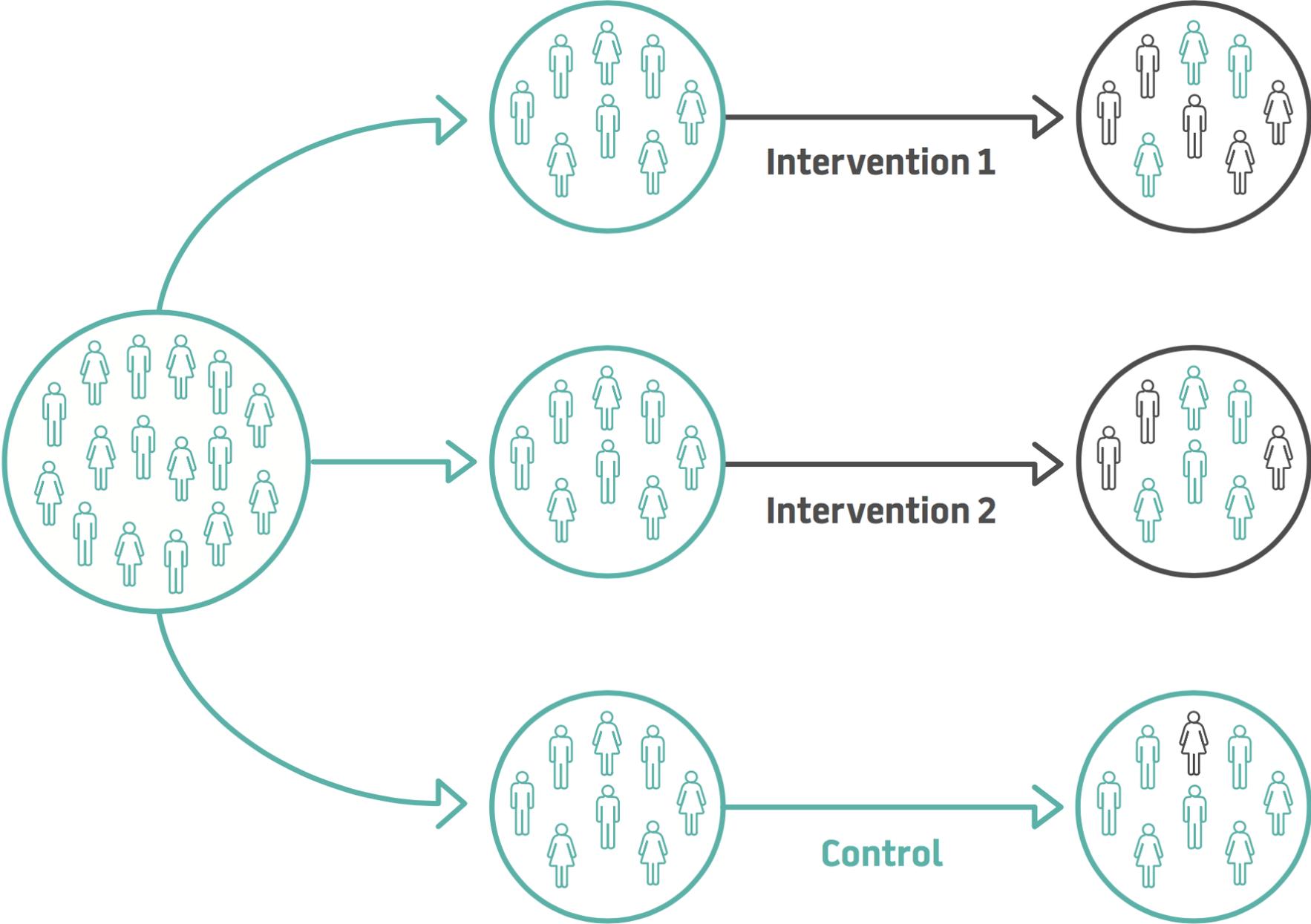


# Emphasizing that they're in control increases persuasion

- We don't want someone to tell us what to do — especially if we don't agree with it
- Cognitive and behavioural science shows that removing the pressure in an offer makes us twice as likely to say yes
  - That is why we volunteer and donate
- It's called the But You Are Free technique
  - ✓ *"It's up to you"*
  - ✓ *"Whatever you prefer"*
  - ✓ *"If you'd like"*

# RCTs for policy effectiveness

- Randomised Controlled Trials (RCTs) to test the effectiveness of policy interventions
- Standard practice in drug development and business strategy
- Experimental technique, randomly assigns the participants under study to different conditions
  - a group receiving the experimental treatment is compared with a control group receiving no treatment
- Can be inserted in processes and policies that are already in place



# Other trial designs vis-à-vis RCTs

- Before – after studies
- Discontinuity designs – useful in non-availability of well-matched control group
- Step – wedge designs - ‘roll out’ a program in steps at different times
  
- RCTs - compare the cost-effectiveness of policy interventions
- RCTs enable the assessment of whether the intervention itself, as opposed to other factors, is capable of producing the desired outcome
- RCTs identify the initiatives that work best, allocation of resources based on evidence and prevent ineffective public spending

# Test, Learn, Adapt and Share

Methodology structured around three key principles:

- Test – identify policy interventions to be compared and initiate evaluation their effectiveness,
  - Learn - measure the results and identify "what works"
  - Adapt - use findings to adjust the policy intervention accordingly
  - Sharing results and insights
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- Behavioural evidence - procrastination and projection bias lead to people not saving enough for retirement; also people are biased towards the status quo. Taking this evidence into consideration, the UK's Department for Work and Pensions **introduced automatic enrolment** in pensions in October 2012 to increase pension savings

# Issues and myths around BIs

- BIs are not "old stuff" while they might at times be "so close to intuition"
- BIs do not exclusively rely on behavioural economics and should not be confused with nudges
- BIs do not breach data privacy
- Randomised controlled trials are not necessarily too costly to be justified for policy purposes

# Limitations

- BIs are not a panacea for all policy problems or a replacement to more traditional, regulatory approaches
- E.g. price trend of crude oil seems to challenge the whole idea behind behavioural policy-making
  - Crude oil price fell to a 10-year low, less than \$30/barrel, after having reached \$140/barrel in 2008
  - With such incongruous and counter-intuitive price signals, the ability of behavioural interventions to nudge people away from cars, and into public transport, to eat and buy local, to save energy and preserve the environment will be quite limited

# Limitations

- Obviously, we need the right price signals first and then BIs to complement these with information on how people actually make choices and behave
- Hybrid approaches – combining behavioural tools (e.g. using social norms to stimulate decreases in energy consumption in households with more traditional tools (such as economic incentives) – will be more effective at delivering results

# Way forward

- Cognitive and Behavioural sciences - inform policies by
  - providing an analytical framework for experimentation and
  - testing of policy options to assess their effectiveness
- Transparency and the sharing of outcomes should be primary concerns for policy-makers applying BIs
  - Transparency is needed to respond to ethical concerns
  - sharing can lead to more robust behavioural policy initiatives, built with a greater understanding of "what works," and under which conditions (e.g. cultural, geographic, of specific cohorts)
- Should be applied throughout the policy cycle - including in anticipating implementation and enforcement issues - to generate useful evidence in the most effective way

Thank you

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*"Heavier-than-air flying machines are impossible."*

The Lord Kelvin - 1895  
Physicist & Engineer

