How can instinctive preferences improve policy outcomes?

Why do people in some countries donate organs more than in others? Why do we not save enough for retirement even when we can afford to? Why don't we buy energy-efficient appliances that save us money in the long run? How can more people be encouraged to live healthily?

Around the world, policy makers have begun to pay attention to the growing field of behavioural economics. Instead of assuming that citizens are the rational, interest-maximising agents of economics textbooks, behavioural economics starts with the more realistic assumption that people are shaped by cognitive biases, complications and limitations. Our rationality, self-control and self-interest are all bounded in ways that have implications for the way we design and implement public policies.

Speakers: **John Daley, CEO, Grattan Institute**
Donald Low, Vice President, Economics Society of Singapore
George Argyrous, Senior Lecturer, Australia and New Zealand School of Government

AUDIO: This is a podcast from Grattan Institute.

GEORGE ARGYROUS: Welcome everyone to tonight's discussion. My name is George Argyrous. I'm with the Australia New Zealand School of Government. ANZSOG has been around for 10 years and we provide education services to the Australia and New Zealand public service, in particular a Masters in Public Administration and executive workshops. Over those 10 years we've built an alumni base of over a thousand people working throughout the Australian and New Zealand public services. And the other part of our mission is to contribute to the public policy debate which is why we are co-sponsoring the event tonight.

The other sponsor tonight is Grattan Institute. Grattan Institute has been around for three years. And also contributes to public policy debate. Grattan Institute is an independent think-tank based at the University of Melbourne and its aim is to provide high quality input into the Australian public policy debate in a number of different areas. One of the Institute's focuses recently has been to try and encourage Australia and Australian public sector to think differently about where we get our inspiration for policy development. In particular to look to Asia and what some of the Asian countries are doing. Which brings me to introduce the first member of our panel tonight, Donald Low from Singapore. Donald has an extensive background in the Singapore public service across a wide range of policy areas. He was educated in the UK at Oxford and at John Hopkins University in the US. He's moved into the private sector recently but will soon be joining the Lee Kwan Yu School of Government in Singapore.

Also joining Donald on the panel is John Daley from Grattan Institute. John also has an extensive background across a wide range of policy areas, public-private, the university sector, and has worked with ANZ and McKinsey & Co.

As I mentioned, the discussion tonight is about incentives and preferences. For those of you who aren't too familiar with the concept of behavioural economics, I might just ask Donald to draw out some of the key issues and findings and what that tells us about public policy making, drawing on his experience from Singapore.

DONALD LOW: Thanks everyone for coming. It's great to be back in Australia. I think most economists would say to the question how do we shape behaviour, how do we shape behaviour? Most economists would just use one word – incentives. You want somebody to do more of something; you pay them to do it. If you want them to do less of that thing, you tax them. It's not a particularly useful guide to policy makers who have to figure out how you design those incentives. I think that's where behavioural economics comes in and behavioural economics says that people's responses to incentives are shaped more by their cognitive

limitations, by their cognitive biases and by the social context, things like social norms. On cognitive biases, one of the big findings in behavioural economics is this idea of loss aversion. The peoples' responses to losses and gains are not symmetric. Losses loom larger than gains; the people invest more effort avoiding losses than they do pursuing gains of the same size. So how might we apply it inside public policy? The best example I've seen of that is in the Nordic countries where they are very big on environmentally friendly behaviours and on recycling. They've got the world's highest recycling rates. And one of the things that enabled them to have such high recycling rates is the way they structure incentives in that field. Instead of paying people a small bonus or small rebate for recycling, they've something known as the deposit refund scheme where every time you buy a drink, you have really put a deposit on that can or bottle, and the only way you can get back the deposit is if you place it into a reverse vending machine. It's called reverse vending machines because instead of spitting out bottles, it takes them in. That's a very clever way of harnessing people's loss aversion, their desire to avoid losses. I personally felt it when I was in Copenhagen; I was all over the city carrying those bottles and cans looking for a reverse vending machine to get back my deposit.

JOHN DALEY: And presumably, Donald, the point about that is the way that people are getting exactly the same financial incentive but because the framing is different, you get a different behaviour.

DONALD LOW: That's right. It will not have been predicted by conventional economics because conventional economics says if it's a 50 cents gain or a 50 cents loss, our responses should be symmetric. Sometimes it's not possible to harness loss aversion. Sometimes it's just not possible to tax people. You have to structure incentives as a gain. For instance, in Singapore we've had a big congestion problem in public transport over the last three to four years. So we're trying to create a shift: shift people from taking public transport during peak hours to non-peak hours. The train company was trying to give people small rebates to do that, 10 cents for each trip that you take outside of peak hours. And it wasn't working very well. A behavioural economist comes along and says look, people tend to overweigh small probabilities. If you can structure it as a small probability of a larger gain, people are far more likely to respond. So that throws up ideas like can we use a lottery to do this? So we introduced a pilot called In-Sing where people earn credits each time they travel during off-peak hours. Those credits earn them a chance to win a much larger prize, say $10 for every weekly lottery. That's a clever way of structuring incentives in a way that people are far more responsive to. I think the other big insight from behavioural economics is that social context and norms matter a great deal. Behaviours around recycling, around environmentally friendly behaviours are shaped more by social norms than they are by incentives. Take recycling, for instance. I've been paying a lot of attention to what hotels do to encourage people to recycle. There was this wonderful experiment where if the message in your hotel room was *please recycle, it's good for the environment, it's what we in this hotel believe in;* typically only about a third of people staying at the hotel will recycle. If the message is changed to *most of the people in this hotel recycle*, that percentage goes up to 44%. If the message is changed to *most of the people who stay in this room recycle*, that percentage goes up to about half. It's not just framing, it's the idea that we're incredibly social creatures and we tend to act in ways that conform to social norms and conventions.

JOHN DALEY: In terms of policy, we've seen an example of that here in Victoria with electricity bills where we've talked about how many tonnes of greenhouse gases you've produced given your electricity usage. But we don't compare it to the average household allegedly because it's all too hard. But we do compare water usage to an average household. The norm is you should be using this many litres of water if you've got this many people living in your house. And it's been very effective in terms of shifting consumer behaviour.

DONALD LOW: I was surprised with the drought problem for the last 10 years or so, that the Government didn't automatically respond by increasing water prices. The typical instinctive economic response would be to do so. That's a positive that you didn't do that but still tried to shape norms around water consumption. On electricity consumption, an amazing experiment was done in a Californian city. They sent electricity bills showing how much you were consuming relative to your neighbours. The most interesting thing they found was that when people knew that they were consuming more than the norm – more than the average in the neighbourhood – they cut down their consumption. However, if people found that they were

below the average consumption they actually raised their consumption. This boomerang effect was completely surprising. Now if you're consuming below the average they put a smiley figure to indicate a normative statement about what was desirable behaviour, and that did the trick.

GEORGE ARGYROUS: That raises an interesting issue Donald. You might want to comment on the fact that it sometimes takes a bit of experimentation to get these things right because it's not clear how these norms, these heuristics will play out. Can you give us any experiences in Singapore where you've had to do a bit of trial and error?

DONALD LOW: Conventional economics is a lot more predictive. People do more of something if paid and they do less of something if they are taxed. Behavioural economics is a lot more uncertain because we are such freaky creatures. Psychologists have found 60 of these behavioural biases and heuristics. So which one is the most important? One of the things they found with electricity or water consumption is saliency. We pay a lot of attention to easily recallable, vivid information. In Singapore we are piloting smart meters where we put these in people's homes to show them how much electricity they were consuming in real time. If you switch off the air con, you see the smart meter go down. We found that electricity consumption did come down but the novelty effect wears off after a while. And the information is not presented in so vivid a fashion. What I would really like to pilot instead of a smart meter is to put an energy ball in their house, it's a big ball, it lights up, glows, it glows increasingly bright if you're using a lot of energy. It's far more salient than a smart meter. But you're right, I mean the big lesson of behavioural economics is that you should do these little experiments and see how people respond rather than assume, as economists do – I mean economists are mostly armchair economists, right, they predict from the comfort of their armchairs how people respond to incentives. The big lesson from behavioural economics is to do a randomised trial as a small scale experiment and measure the results from that.

GEORGE ARGYROUS: Yes, one of the research areas behavioural economics has focused on is in the financial sector and financial decision making. Do either of you, with your experiences, have you any insights about what we might do in the area of financial services?

JOHN DALEY: Following on from what Donald was saying earlier in terms of salience, we're seeing that play out in Australia as we speak. We've just shifted the way that ATM fees work so that instead of being charged by the bank that you bank with, you're effectively charged by the bank that owns the ATM machine. The theory was that the amount that you're being charged is not changing very much so we wouldn't see much change in behaviour. As part of this reform, we now flash up a message that says you're about to be charged $2.50 for using this ATM, do you want to proceed? And you can say yes or no. Now lots more people are saying no. That simple, very little piece of salience has had a quite substantial impact on consumer behaviour.

DONALD LOW: In terms of fiscal policy, for instance, the recent crisis was a very good natural experiment at least as far as the Singapore government was concerned. We had to figure out what was the best way of putting out our discretionary fiscal measures if you wanted to encourage spending. Here's a thought experiment. If you want to encourage spending and you wanted to give people money to spend, how would you do it? Saliency would matter, you want to have an eye-catching cash for clunkers program, or time meter shopping vouchers that if you didn't stay within the next two months they won't be valid any more. Behavioural economics suggests that people put their money in different, discrete mental accounts and that people are far more likely to spend the one-off gain, the windfall gain if it's given in small and frequent bundles than it is if it's given in one large lump sum. If it's given in one large lump sum, some people tend to view it as increasing their wealth and they put it in their wealth account to be saved. If they're given frequent bite-sized chunks, they're far more likely to spend. The other thing about financial decisions is that we make mistakes but we learn from them. Here's another question: would you be more attracted to an offer that says buy two, get one free, or buy three and get 40% off the price? Most people would instinctively say buy two, get one free. Free is very attractive. But of course if you buy two get one free it only represents a 33% discount. But people learn these things, and over time they get better at it. So the lesson from behavioural economics, at least with respect to financial decisions, is not entirely a fatalistic one. People are capable of learning in terms of which banks to choose, which offer the best interest rates over time. Certain loans in the US now have a law which requires the most salient aspects of a loan

package to be put in one page, font size 12 to explain clearly to the customer. I think people are capable of making good decisions when things are explained clearly to them with respect to financial decisions.

JOHN DALEY: I think sometimes, but I suspect that that's not always true. For example, Australia had, like most of the rest of the world, so called capital protected products for investment. Essentially the promise was if the market goes up you'll get a return of whatever this is, however, you'll pay some outrageously high fee on the way through. But if the market goes to custard, you will keep the original value of whatever it is you invested. It was appealing to loss aversion; it was saying people really care that they will keep the nominal value of what it is that they've invested. Even if you can in fact only claim seven years down the track so the real value of what you're claiming back is not very high. They were immensely attractive products that had a lot of people queuing up to buy them. Even though when you sat down and worked out your average expected return from this product, it was terrible. But it appealed to that loss aversion …

DONALD LOW: And money illusion. People don't understand inflation very well. Just look at nominal returns.

GEORGE ARGYROUS: That brings us, at least in Australia, to the issue of superannuation which is another area where this has been explored. The Productivity Commission have released a report – and it's based a lot on the findings of behavioural economics – which tries to tailor the funding which your super funds go into by default.

JOHN DALEY: I think there's a big understanding that defaults really matter. There are a huge number of people who just hate making decisions about this, and in fact arguably there's more of that effect going on in financial services than most places because people have an enormous fear about so much of this, precisely because it's about money and loss. Consequently the default you give them is one that a large number of people will choose. Then of course that leads us to the big question which we always have in this area: what's government doing and what choices, if you like, should it favour? This is an interesting one because there is a very clear public policy objective. Our objective is to ensure that, at least on average, Australians have the largest possible superannuation and savings at the end of the day, and if you buy the general hypothesis that says, on average, people can't possibly do better than the market because the market is effectively the average, then the public interest is in reducing fees as much as possible and therefore the public interest is in default which involves low fees. That's the public interest. If people want to choose something else, well that's their right to go and play the market, but that's what we should be choosing from a policy perspective.

GEORGE ARGYROUS: This might be one for the audience to think about in anticipation of some questions: how many of you have actually looked at or considered where your superfunds are currently placed, where they might go and who decided that they were there in the first place? This is exactly the policy issues that the government's dealing with at the moment, and they are about to announce some policy changes around it. The other area in which behavioural economics has had some influence is in the health area where they are trying to structure or affect our decisions on various aspects of health. Experiences from Singapore you might want to share there?

DONALD LOW: I think this is a particularly tricky subject where the position is quite a complex one. I mean I don't know if anybody makes health insurance decisions on a cost benefit rational basis. There are so many loss events, many of which are unfamiliar to us, that it's just not realistic to assume that people make these utility maximising cost benefit calculations. I think the other tricky thing about health care is that a lot of the decisions in health care involve intertemporal trade-offs: incur short-term costs for some long-term benefit. For instance, whether it's quitting smoking, eating more healthily, exercising more regularly, or managing chronic illnesses like hypertension or diabetes, people tend to overweight their current loss of utility and significantly apply a very large discount factor on their future gains. Of course that leads to problems of inertia, procrastination. If you asked somebody *would you rather start exercising next week or the week after*, they'll say of course I want to start exercising next week. But when next week becomes today, they say well I'll do it next week. So that at least is a

problem of procrastination. Behavioural economists call this hyper-billing discounting or present buyers preferences. For example, they found that in weight loss programs the thing that works the best is a bit like the deposit refund scheme that we talked about. If people enter into these deposit contracts where they put aside $200 and if they don't lose 5kg in a month's time, that $200 will go to a charity or whatever. So they found these types of contracts to be far more effective than say providing people with information on calories. Another thing about health care that's tricky is people think – again back to the saliency bias – people think they're going to die from something dramatic. But the things that are more likely to kill us are far more mundane; ailments that are far less publicised like hypertension, obesity, diabetes. These are less dramatic ailments. So people tend to underweight those risks and overweight things like I'll die in a car crash or plane crash. The idea of scope there is for governments to think about how we use defaults. In Singapore's context we've used defaults in at least two areas. One is in health insurance. There's a national low cost catastrophic illness health insurance scheme, called MediShield. It's not compulsory, but the default is you are in unless you choose to opt out. Because of inertia hardly anybody opts out. The second way we've used the insights from behavioural economics is in organ donation. We are all organ donors unless we opt out. We've got organ donation rates of about 80 or 90% because hardly anybody chooses to opt out. In fact you find in countries where the defaults are set the other way – you have to actively opt in for organ donation – typically the participation rates are well below 20%, which is very low. If you ask people across the world would you be willing to be an organ donor, you find that 80% of people would say I'm prepared to be an organ donor when I pass on.

GEORGE ARGYROUS: And how have those policies been received in Singapore?

DONALD LOW: By now you would have noticed that there's a streak of paternalism in behaviour economics. The State has a particular idea of what it wants you to do and it cleverly structures choices so you are more likely to choose what the State wants you to choose. That's where the usefulness of democratic debate comes in. What are the defaults to improve public outcomes that we think are socially acceptable, and which are those where we think the State has slipped over into hard paternalism? I was talking about organ donations earlier. I think where we failed is that, for those people who opt out of being organ donor, they are put right at the bottom of the queue if they're ever in need of organ donation. I think that's where it slips into hard paternalism where you're not really giving choice. You want to set some simple defaults, but you want to give people costless ways or reasonably costless ways of opting out. The other example I have where we use defaults badly is in matchmaking. Some of you may know we have state matchmaking in Singapore because apparently our graduates need help getting hitched. When you graduate from a local university your information is automatically, by default, given to the state matchmaking agency, unless you opt out, which hardly anybody does. Mostly because they didn't know their information was going to be passed on. I think that's unacceptable. Not all defaults are created equal. There are certain safeguards you need to put in place. You need to respect civil liberties and people's privacy. Those are some of the lessons that I would share from the misguided, overenthusiastic use of behavioural economics and defaults in Singapore.

GEORGE ARGYROUS: John, do you have any thoughts on that? Where the State can draw the line about legitimate areas for intervening and structuring choices, and where it's just gone a bit too far?

JOHN DALEY: The classic analysis of paternalism is that it's all about liberty, and essentially the State has no right to intervene unless there's a compelling harm that you're trying to prevent. I think there's a whole other discourse around paternalism which says actually the real vice involved in paternalism is the way that it tends to lead to other costs. It leads to people deliberately avoiding things and people taking advantage of what's been banned. Drugs are the obvious example of this. The real harm of the State paternalism in terms of preventing people from using drugs is the way that it creates a very large drug trade with all of the social harms that that can lead to. I suspect that one way of actually starting to shift the paternalism debate is to say really that's the thing that we are most worried about. Then when we hit these types of paternalism issues, thinking that through. There's of course a second issue around paternalism which is: what's our level of confidence that the State has actually got the right answer here? We know that people are liable to short term biases to avoid instances of loss, to avoid

incidence of risk and so on. And that's the problem, how do we ensure that those biases aren't themselves affecting what we choose as defaults.

GEORGE ARGYROUS: I will now open up the discussion to the floor: any questions from the floor for anyone on the panel?

AUDIENCE: In the UK they've introduced something which is pretty marvellous, I think. As a public body goes, a small unit called the Nudge Unit or the Behavioural Insights Team. Its results have been fantastic. They claim that they've paid for themselves 50 times over in their first year. One of the things that I really like that they've done is to influence the language and the way in which the policy makers have gone about evaluating policy decisions. I've got two questions for you. One is what do you think the best way is for us to get a nudge unit, whether it's in the Australian public service or within the state sector? Secondly, how should we go about influencing that language that they've been so successful in influencing?

JOHN DALEY: Well let me answer the first half which is clearly the kind of thing that central agencies can do. How would we do it? We try and encourage people to understand. There are actually some quite big gains on the table here. It's inherently about how you frame things, how you make things salient. Often these things don't cost very much, but have very big impacts on behaviour. Donald, we were talking earlier today about the way that you change the language around the insurance scheme. That seemed to actually make a surprisingly big difference.

DONALD LOW: In 2007 the Singapore Prime Minister announced the Longevity Insurance Scheme. The problem was that our superannuation fund was paid out at 65 and the accounts would run out for individuals by 85. So we wanted a way of paying people until they died. So we introduced the Longevity Insurance Scheme, and the idea was that we'll take a bit of their superannuation, their retirement savings, to pool it into an insurance scheme. It was a low cost way to fund people until they died, even if it was 100. We thought it was a good scheme. All the policy makers thought it was a wonderful idea, we were risk pooling, we were sharing risk; we were safeguarding people against the risk of them outliving their retirement savings. We were really surprised as economists when the public reaction was a very negative one. Rather than see the scheme as a way in which they were guaranteed lifelong income, they were saying longevity is a good thing so why am I insuring against it? It was back to loss aversion, they focused on the loss: Why are you raiding my savings? I may not live to 85. At the focus group discussions there were senior citizens coming in and showing the obituaries from the past week's papers to prove the number of people dying before they were 80. That's the saliency bias and as economists we tend to ignore these things and think that as long as you get the incentive in place, you are structuring the scheme right. You think that if you make sure that the financing is sustainable, people will see the wisdom of it, the rationale. People don't. So when framing matters, you should pay attention to people's loss aversion. I'm very glad you brought up the Behavioural Insights Unit because they're one of the big inspirations of everything we do in Singapore. They've come up with this wonderful pneumonic *Mindspace*. 'M' stands for messenger and communicating government messages: pay attention to who is communicating the message. Our emotional reaction to the person giving information greatly shapes our response to that information, even if it is correct information. If it's told to us by somebody we don't like, we tend to heavily discount it. So lesson number one, try not to use politicians because they're not usually well liked, especially when it comes to behavioural change. The 'I' relates to incentives. Economists would agree with that, except behavioural economists say pay a lot of attention to the design of those incentives, pay attention to loss aversion. Use the fact that people will weight small probabilities. And the social 'N'orm we talked about earlier. Then use 'D'efaults; make use of intelligent defaults. And 'S'alience. P is priming. Our decisions are shaped by the cues in our environment. The best example I have seen is the speed regulating strips that are painted on the road. These are not bumps; there are just strips that are painted on the road. The strips are spaced far apart and as you drive through them they get closer and closer together. So the illusion is that you are driving faster. Instinctively you'll squeeze your brakes. That's a nudge for you to drive more slowly. 'A' is the affect on our emotional responses, which typically override our long term rational responses. 'C' is use of commitment devices. I talked about quitting smoking and the best way to get people to do that is to find a way of making binding commitments to quit. They put aside $100, if they don't quit by end of this month this goes to a charity, or someone they don't like. That's probably far more effective. And

finally 'E' is ego. We like to act in ways that make us feel good about ourselves, so I'm sure some of you have these things on your iPhone, my run where it shows how many calories you have burned. And it pops up on your Facebook account and it makes you feel good about yourself, it shapes your norms in your network of friends. I found it a very useful way of analysing public policy, especially those that involve behavioural change. Going through each of these letters, is a very vigorous process of thinking through how we should structure incentives, how we should communicate and frame policies, what are the environmental cues we can harness, what are the psychological advances we pay attention to.

GEORGE ARGYROUS: But in terms of how we embed that institutionally somewhere in the policy making process, I think it is happening. Whether it needs to be driven further is another matter. For example if you look at what the Productivity Commissioner's been doing over the past few years, which is often seen as a bastion of conventional economics, certainly their encouragement of the use of trials, things like gambling technology, trials of the National Disability Insurance Scheme, the number of different programs they're insisting on trialling first, precisely because we can't always anticipate how behaviour will respond to whatever policies we put in place. As I said earlier, with the superannuation debate that's going on, they've explicitly adopted behavioural economics as a framework. So certainly the Productivity Commission is moving there and just from my own work with various agencies around Australia and New Zealand, I am starting to see within Treasuries, within Departments of Premier and Cabinet, Prime Minister and Cabinet, cells of people sometimes secretly exchanging texts on behavioural economics. Hopefully there'll be a more explicit development of that institutionally, and there are positive signs that it is starting to happen.

AUDIENCE: I guess the age old debate of the carrot and the stick approach is the forerunner to the more sophisticated form of behavioural economics that we're discussing. I wonder whether you might like to shed some light on where you've seen the reward versus the penalty approach work best or worst in the different areas it can apply. I don't mean just in a public policy because part of reward or punishment comes from social norms. I guess a classic is how things like smoking have now become socially attacked as much as the government's gone after it through various stick approaches as well. Thanks.

DONALD LOW: I think the best example of that in Singapore is the insight gained from loss aversion. That people are far more likely to respond to losses than to gains was highlighted in the way we tried to first discourage and then now encourage fertility. In the '70s right up to the early '80s we had this massive program to discourage fertility. This was terribly effective and drove down our fertility rates from well above three to well below two. People really responded to the desire to avoid those losses if they had too many children. Now we've got a reverse problem, our low fertility rates are too low. Our population is ageing very rapidly and we aren't replacing ourselves. Now we have these massive fertility bonuses, baby bonuses and all sorts of tax incentives. And their effect on the society's fertility rate is zero. They have had absolutely no impact on people's fertility position. But you raise a larger point which is around norms. I think there is a great danger that over-reliance on economic incentives crowds out people's intrinsic motivations to do the right thing, and crowds out desirable social norms. There are several experiments on this. My favourite one is by Bruno Frey, a Swiss researcher. He went around polling Swiss residents: *there's going to be a nuclear waste dump and it's going to be in your neighbourhood, would you accept it?* A surprising high 50% of respondents said they would accept it. Then he tweaked the question. A nuclear waste dump is going to be in your neighbourhood. We'll pay you the equivalent of six weeks of the median wage. The approval rate, the rate at which people agreed to that, went down to 25%. There are some cases where we pay people to do the right thing, they do less of it. I'm sure many of you would have heard of the quasi experiment in Israel where a childcare centre imposed a fine to discourage late-coming parents. What happened instead was that parents saw that not as a fine but as the price to pay for coming late, and late-coming rates shot up. The childcare centre realised what was happening and withdrew the fine. Amazingly the incidence of late-coming didn't go back to the original level. So norms are sticky. Once you've replaced social norms with market norms, you can't get back the social norms. So be very careful about incentives that you think might go against the grain of social norms. They might crowd out social norms. The best book that has come out recently on this subject is by Michael Sandel, the moral philosopher at Harvard. Its title is *What Money Can't Buy: The Moral Limits of Markets*. For the last 30 years, or maybe last

20 years, we've seen this ascendancy of markets, of the use of incentives, the logic and language of neoclassic economics really come into public administration and governance in a big way and I think Sandel is right to say that we have to think hard as a democracy what kind of society might become of monetising everything. Incidentally on the idea that a fine might become a price, a tax, now think about this: let's say you are late for a meeting and the only way you can get to your meeting on time is to speed. You make the calculations. If I miss this meeting, it might cost my job. Speeding, if I get caught, is at most a $100 fine. So you might think it's worth it. You've done the rational calculations. But as a society we think that that's wrong. You are not treating the fine the right way. You know how Finland deals with that kind of problem? The fine is a percentage of your income. The highest speeding fine they gave out recently was to some Nokia executive, and it was 100,000 Euros. And that did the trick.

GEORGE ARGYROUS: Whether rewards or penalties work requires a very deep understanding of the particular group of people whose behaviour you're trying to affect. You can't take everyone as given and as acting in the first year micro text book system of behaviour. Everyone's going to have the same principles and they'll behave on those principles in the same way. An example is if you buy a bottle of wine or other alcohol, it'll now have the number of standard drinks on it. It's meant to affect our behaviour by giving us more information about alcohol content. Most people have adjusted in the way that the policy makers thought, except for some very peculiar populations. If you're a young guy out on Friday night, you don't have much money in your pocket, and the point of going out is to get smashed, what do you do with that information on the bottle? You make a rational calculation about which alcohol purchases are going to give you the most alcohol. So it had a perverse outcome for that particular population. Whether the reward works or the penalty works, it requires that subtle knowledge from the policy makers' point of view of the norms, habits, and traditions of a particular population you want to affect. That's a harder, a much harder thing for a policy maker.

AUDIENCE: I have a question about hyperbolic discounting. A lot of the big public policy problems we face are about decision making over time. It's a very interesting discovery that the way in which people actually make their decisions has this hyperbolic shape that we have a very big discount between right now and the near future. And the impact between a long time in the future and a little bit further is not very much, which is very different to how we typically model decision making with exponential discounting. Should we actually be using time consistent preferences in the way that we evaluate public policy because it seems like if that's the way that humans make decisions, what's wrong with it?

JOHN DALEY: I think it depends on why you're asking. If what you're trying to do is maximise utility, given that people do in fact live their complete lives, then understanding the time value of money which is the place where obviously discounting is most important, is a sensible place to use it. On the other hand, I think that there are real opportunities to actually use that kind of attitude towards discounting in a way that enables us to do policy that we might not otherwise be able to do. Australia has a number of examples where governments have, if you like, post-dated policies. They've deliberately said this is not going to happen now, but it's going to happen at some time in the future. Even though they're imposing losses, because that's the nature of policy – sometimes you impose losses, they've been able to do that in a way that had relatively speaking low political costs because they were only taking the loss in the future not as it were now. If you look at the way we introduced superannuation, it was we're not going to take any money away from you; we were simply going to take the money that you're going to get in a future wage rise and put that towards your superannuation. That was a much easier way of bringing in the policy than taking money away from people. There's a similar example in terms of the way that we have shifted the retirement age. We've moved it from 65 to 67 essentially over the next 15 years. Now I would say that's nothing like enough, it should be more like five years over the next 15 years. Nevertheless the fundamental structure of it was right in that it was something that only starts to happen two years in the future and it only happens gradually. The fact that it'll have more or less the same impact has disappeared. It was a policy change that's very significant, but got maybe two weeks' worth of not very serious air play. You can see another very interesting example of that at the moment in the way that we change the way that we charge for the electricity network. Many people in Victoria are blissfully unaware, and I will confess I was in this category too, even though I was working on an energy policy at the time, that people in many country areas pay substantially more for their transmission than people in

city areas, because it genuinely costs a lot more to do the electricity distribution in country areas as there's fewer houses per kilometre. But the policy change was implemented in the future over a number of years, and consequently it caused far less consternation, the political costs of doing it were much lower. What this kind of area does open up is the opportunity to think through a whole series of policy reforms that we tend to look at and think oh that's far too hard, we'd never manage to do that. If we can think about how might we design the policy change so that it only happens gradually and at some stage in the future, it may be much easier to introduce those policy reforms. Although five or 10 years sounds like a long time right now, in government policy terms, it's actually pretty short. If you can really get the whole reform in within the next 10 years, you've done really well. Perhaps we need to think a bit more about our policy design: how do we implement it to take advantage of that kind of hyperbolic discounting that means that the political costs are lower than they would be otherwise.

DONALD LOW: I would just add that in the same sphere you would also make more extensive use of sunset clauses, like expenditure programs, and then you might feel compelled to do it in the short run. You set a sunset clause to it so that it self-expires and self-destructs. There's a tendency in government that even when programs don't work, you have to justify the abolishment. The status quo is that they will remain. Why don't we change the defaults, and say that unless we have overwhelming evidence that it is a good thing, this program will self-destruct.

AUDIENCE: I've been thinking a little bit lately about how to apply the insights from behavioural economics to the policy makers themselves. It seems in a lot of high profile policy areas it's relatively easy to come up with good policy, but excruciatingly difficult to get it implemented. Can we apply nudges or embarrassments in some institutionalised way, or systematic way, that will make politicians stick to the facts and goals that they set out?

JOHN DALEY: I don't know if it's easier in Singapore than it is here.

DONALD LOW: You're absolutely right. We can describe the problem quite well but we are quite short of solutions. Policy makers are also famously notoriously bad with discounting. They pay excessive attention to short term gains and discount long term costs. They also suffer from their own saliency biases, after Fukushima policy makers thought nuclear power was terribly dangerous. Policy makers also suffer from sun clause fallacy. If you spend money on this program, we just keep throwing money at it, even though it's no longer the marginal cost, the marginal benefit analysis no longer supports it continuing. So how do we counter these biases? It's like telling the policy maker heal thyself. It's not so simple, it's not so easy. We can diagnose the problem but we may not know what the solutions are. There are various things we can do. One of the things that I like to get people to think about is something which the cognitive psychologists, Gary Klein, has talked about, which is policy makers should do a lot more pre-mortems. Our policy makers must do a post-mortem for policy that has been badly implemented. But why can't we get policy makers to do a pre-mortem as a routine? In the pre-mortem you basically tell your team; a crystal ball has told us that this program we're going to roll out has failed. Your job is now to come up with all the various reasons why this has failed. We take active measures to guard, or to mitigate, against those possibilities of failure. So we start getting policy makers to think in far more anticipatory ways than they are used to. We tend to think in very straight line, linear, best case scenario ways. The second big thing I think is policy makers tend to be extremely risk averse and there's a behavioural tendency for that, which is that if the policy maker tries something new and it flops, he's going to get excoriated for it. But if he doesn't try anything new, he sticks with the status quo, and nobody blames him for that. Again that raises the hard questions about how do we shape or change things and the structure in bureaucracies and if you've got an answer for that, I think we've got an answer for humanity's problems.

GEORGE ARGYROUS: Although I might comment that one of the aspects of behavioural economics is it shifts a lot of the emphasis from what is good policy away from the big picture stuff to the fine detail of program design and implementation. Sort of behind the scenes away from the politicians, and it puts a lot more emphasis on what the policy implementers at the lower level are doing and about the real fine choice architecture that they're setting up.

DONALD LOW: I do think we're at the cusp of the next revolution in public administration. The last time we had a revolution in public administration was around the time of Thatcher and Reagan and the idea was that governments just sat back and markets would sort everything out. We outsourced, we privatised, we deregulated. That experiment is over and it's been, well, it's not been complete disaster, but it's not been great. I think we're at the cusp of another revolution in public administration and governance where there are various streams feeding into this great movement. One of which is behavioural economics. The other is this whole idea of impact evaluation, randomised trials. I think the governance in 10 years from now will look very different from governance today. People will be paying a lot more attention in policy design to micro design and paying a lot more attention to evidence-based policy making. So overall I'm so optimistic about the ability of governments to make positive change.

AUDIENCE: You mentioned that randomised trials are a good idea and I guess policy experiments more generally. How much of that is happening at the moment?

GEORGE ARGYROUS: Let me draw back a little bit, I don't think randomised control trials are always ideal. I use the word trial in a broader sense as in trial and error. Randomised control trials certainly have their place, but often are limited and sometimes too much emphasis is placed on we shouldn't do anything unless we get proof from a randomised control trial. I wouldn't define it purely in those terms. I think it's more about trial and error of many different forms. We have to learn the fine detail about what will work in terms of adjusting or adapting people's behaviour.

DONALD LOW: When you say randomised, where possible we should try to …

GEORGE ARGYROUS: I don't think randomised control trials are necessarily good or even doable in many social contexts. Recently there was a spoof of randomised controlled trials in the British Medical Journal where they said that we don't have any conclusive proof that when people jump out of aeroplanes, it's parachutes that stop them dying. All we have is observation. No-one's ever done a proper randomised control trial. So we're forcing people to wear parachutes and that's a cost and maybe we shouldn't be doing that. And all those people who believe in randomised control trials should offer themselves up as the control group so we can do a proper trial, experimental trial to prove conclusively that it's the parachutes. While most randomised control trials are often seen as the gold standard for finding out what works and what doesn't in these kinds of experiments, I certainly wouldn't want to limit our learning to just what we get from randomised control trials.

DONALD LOW: I think it's more the mindset that you want to change to what's, as you put it, a trial and error mindset rather than a specific tool itself.

GEORGE ARGYROUS: Right.

DONALD LOW: So as you pointed out, it's sometimes hard for governments to justify or intervene on this group and leave other groups untouched. Sometimes you can still find ways to do natural experiments. In Singapore's context, when we introduced a few years ago a wage supplement program for workers older than 35 one of the things we looked at was the comparison of the labour participation rates of that group that benefited from the wage supplement, versus the group that's just one year younger and what was their labour force participation rate. Thanks to that the program, we have reasonable confidence that it leads to an increase in labour force participation.

GEORGE ARGYROUS: But it does mean we need a willingness to accept trial and error. If we can't always predict with certainty and accuracy how people will respond behaviourally to our policies, we have to be willing to accept a bit of trial and error, and learning from that rather than expect our policy makers to get it right first time.

AUDIENCE: I wanted to ask about the more expensive side of behavioural economics. You've spoken about some of the great success stories, thinking about opt in or outs and social norms. But I'm thinking about governments handing out cold, hard cash – financial incentives, whether that be tax breaks for people to go into nursing, or things like first home buyers grant. How

effective, in your experience, do you find those to be? If they are effective, how do policy makers go about setting the right rates of 2200 or 2000 dollars?

JOHN DALEY: If I can start. Those things are not necessarily behaviouralist. Those are straight forward economic incentives; if we pay X, we hope to see with an elasticity of Y that we'll get behaviour change Z. The point about behavioural economics is to say the exact way that you design things can actually have an impact and make a difference which theoretically, from a pure incentive point of view, you'd say it doesn't really matter, it's the same amount. But it does turn out, as we've been discussing, that design matters. And of course I think the issue is always, particularly with incentives – and the first home buyers' scheme is a lovely example of this – you got to be really sure you have thought through what are the second order impacts of putting those incentives into the market. My former colleague, Saul Eslake, used to describe it as the second home vendors scheme, not the first home buyers scheme, because good old fashioned economics told us that the impact of that kind of incentive would in fact be simply to increase house prices and that's exactly what happened. I don't think we're suggesting for a moment that behavioural economics is the only way to think about the world. Good old fashioned incentives still work, and good old fashioned economics can tell us a lot about the way that those incentives will flow through an economy. The insight perhaps from behavioural economics is people tend to assume the salient thing, they assume well I'm giving money to a first home buyer, that's got to be good for a first home buyer, isn't it? And the insight of economics is to say well actually, life's a bit more complicated than that. When you think through the second order impacts, it may not be anything like what you expect as a result of just focusing on the saliency of the payment.

AUDIENCE: I recently returned from a trip to Singapore and was quite struck at the complete lack of beggars on the streets of Singapore. It struck me because in many first world countries around the world, you invariably see a few people at least. I was just wondering if there was a flashy new behavioural program being run? Or is it due to plain old fashioned authoritarianism?

DONALD LOW: We do have poor people, but family responsibility is still very much the norm in Singapore. Also there are these government homes for poor homeless people. Inequality is increasing very rapidly and social safety nets in Singapore are not exactly comprehensive. So I do imagine this issue will become a more pressing problem in the years to come.

AUDIENCE: You spoke about the difficulty in anticipating peculiarities in behaviour. For certain areas like criminal law policy or dealing with young people, these are policy areas where peculiarities or unpredictable behaviour against the rest of the population is quite dominant. But policy makers seem not to grasp this. The example of the commonly held belief that prison is a deterrent to criminal behaviour is consistently disproved by recidivism rates. And yet criminal law policy remains largely unchanged. How can policy makers be better informed in these areas where the behaviour of the people concerned is quite erratic and unpredictable?

DONALD LOW: That's a very good question. The latest research is inching towards to what extent does behavioural economics shape ethical or non-ethical behaviours. A traditional economics view of crime is that criminals are rational; they've done the cost benefit calculation. If you want to deter or discourage crime, raise the penalties for the criminals or increase enforcement, increase their risks of being caught. I don't think criminals make the kind of judgement. I'm sure you have heard of the broken windows theory where the way crime is interpreted has a great impact. If there is a very low tolerance level for very petty crimes like vandalism then crime rates can fall. That was what apparently did the trick in New York where police started enforcing on even things that made the environment slightly more conducive to criminal activity, crime rates just fell across the board. So don't let the slippery slope even start. I guess that's the message from the broken windows approach to crime fighting. I think that's generally also been the Singapore government's approach. If you ensure the neighbourhoods are shining, are clean, then criminal activity is far less likely to occur. It is environmental cues like these which may matter more to explaining crime rates and criminal behaviour than incentives or the penalties and relatively wards off engaging criminal behaviour. The best book I've seen on this is by Dan Ariely, *The Honest Truth About Dishonesty: how we lie to everyone – especially ourselves*. It talks about criminal behaviour and about dishonest behaviour more generally. It turns out that we're all dishonest to some degree. But we also have a self-image

that we are honourable, decent people and if we engage in cheating behaviour, even when there is no chance of being caught, we don't go the whole way. We are not as criminal as conventional economics describe. We have a self-image of ourselves as honest, decent folk. We would cheat a little but we won't cheat a whole lot. But it has important implications for how we do corporate governance, how we structure incentives in companies, how we provide people with ethical reminders. Say on tax avoidance, instead of asking people to sign right at the end after they've gone through two hours filling in their tax return, *I declare everything I've said here is true*, we should provide that ethical reminder right at the start. That way you prime people to think in terms of I'll be honest rather than bring it up at the end when they are not likely to go back and redo their responses.

JOHN DALEY: I think there's some interesting examples there too about setting norms. In the equivalent of the tax pack, if you say most people don't claim more than X hundred dollars for whatever this deduction is, very few people will.

GEORGE ARGYROUS: In Australia at least there's been a lot of experimentation and trials in criminal justice doing things like restorative justice where they try to bring the norms of various communities to bear on the sentencing process to try and approach criminal justice in a different way. This has been met with varying levels of success. I think they're still working that one out and gauging its success but it certainly is trying to move away from the traditional criminal justice model.

DONALD LOW: The other big finding from neuroeconomics, which is a sister offshoot of behavioural economics, is that we are cognitively depleted when we are tired. We tend to engage more in unethical behaviours when we are stressed, and we tend to make very bad, unethical decisions.

JOHN DALEY: I can see a whole new field of bank regulation opening up around …

DONALD LOW: Andrew Lo at MIT has done all these wonderful experiments measuring bankers' testosterone levels, and they make far riskier bets when their testosterone is high. So as a regulatory measure, we should all take a measure of bankers' testosterone levels and if they are above some unacceptable level, they are banned from trading for that day.

JOHN DALEY: Thank you very much. It's my pleasant duty to wrap things up for this evening. Before I do that, I have a copy to give away of Donald's book, *Behavioural Economics and Policy Design: Examples from Singapore.*

End of recording

AUDIO: This has been a podcast from Grattan Institute. Want to hear more? Check out our website.