

Psychology & Economics in Regulation

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This talk shows how insights obtained from research in economics and psychology might help in developing and implementing New Zealand government policy. I first very briefly outline a little research suggesting human judgement is imperfect. Some principles of nudging are outlined and some (dubious) examples of how they might be used are suggested. Finally, I suggest that attempts to change public perceptions or behaviour would do well to investigate what these perceptions are or what seems to drive the behaviour.

Psychology and economics

In recent years there has been a great deal of research interest in both economics and psychology in how people evaluate, judge, and make decisions. The research area is variously described as economic psychology, judgement and decision making, or behavioural economics. An important research strand is examining instances where human decision-making is imperfect or shows bias, and a number of different types of bias, such as the endowment effect, framing effects, and omission bias, have been identified. To give a single example, the endowment effect is well illustrated by an anecdote:

“A wine loving economist we know purchased some nice Bordeaux wines years ago at low prices. The wines have greatly appreciated in value, so that a bottle that cost only \$10 when purchased would now fetch \$200 at auction. This economist now drinks some of the wine occasionally, but would neither be willing to sell the wine at the auction price nor buy an additional bottle at that price” (Kahneman & Tversky, 2000, p. 159).

The bias, or paradox, lies in the two different prices which are implicit in the behaviour of the economist. If the wine really has a value of \$200 or more to the economist, why not buy more? If it does not, why not sell the existing stock?

Also very important, but not quite so well-researched, is the identification of situations in which biased judgement or decision-making is likely to occur. Experimental research has often been conducted using scenarios that present hypothetical situations to expose the bias. (Readers wanting more detailed information about the area might try Kahneman & Tversky, 2000 or Lewis, 2008)

Nudging

From the outset, those involved in the research have been keen to see their work applied, and particularly in the policy area. Richard Thaler and Cass Sunstein's (2009) book "Nudge: Improving decisions about health, wealth, and happiness" is a recent, very accessible account of a few of the applications. The overall aim is to preserve individual freedom, while at the same time enabling people to make reasonable choices even though they may not have the time or the training to make completely informed choices. Thus, organisations, and particularly government, should permit choice but use sensible choice architecture to encourage good choice. The authors call their philosophy "libertarian paternalism".

Libertarian paternalism works by nudging people into sensible choices. The key is to use appropriate nudges. For the most part the nudges use well-established psychological principles, although often in new and creative ways. Three important principles are the use of well-designed defaults, timely reminders, and appropriate feedback.

Defaults

The classic research on defaults comes from Madrian and Shea (2001). Either by luck or good fortune they were able to study what happened when a large US firm changed the way it implemented the 401(k) retirement plan. The 401(k) is a defined contribution retirement savings plan that is mandated by the US government and administered (and usually subsidised) by employers. Individual contributors can choose for themselves from an enormous range of different types of plan – or choose to do nothing at all. Generally, firms have a default plan and default enrolment procedure. In April, 1998, the firm studied changed the defaults. They changed the default plan. More significantly, they changed the default enrolment rule so that new employees had to choose to opt out of 401(k) rather than, as previously, to opt into it.

The change in the default rule brought about a massive increase in initial participation from around 50 to 85 % enrolment. There was also a massive preference for the (changed) default plan, which had previously not been popular. The new automatic enrollees made few subsequent changes to their default plan. Overall, the results indicate inertia.

The results were clear-cut, although the reasons for obtaining them are not. The results illustrate a status quo bias, perhaps an endowment effect. It is likely that the employees treated the defaults as investment advice, which perhaps it was. It is also possible that the defaults helped to create a social norm and social norms are very important in determining people's behaviour. (Think of taking a bottle of wine with you when you go out to dinner.) Given the inevitable uncertainty that must accompany a thirty-year old's retirement plans, one might also question whether there really was any sensible way to choose between the different retirement plan options. One can question whether inertia might be this important in an area where there was less uncertainty.

Whatever the reasons and generality of application, the study shows that default settings can be important in major real-life decision making. Thaler and Sunstein give a number of US examples, but they are not hard to find in New Zealand. As a minor example, vehicle registration forms now fill in most of the details as a default, so that when paying your vehicle registration you need only pay your money and notify changes. As a less minor example, the detailed design of the Kiwisaver scheme was influenced not only by the general principle of choosing the defaults wisely but also by the specific findings from Madrian and Shea. Further applications of the principle are probably possible. The Inland Revenue Department might consider mailing out its assessment of people's tax liabilities, and giving individuals the choice of either accepting this as a default or producing their own return. The basic philosophy of nudging would require that such a return would automatically be accepted in place of the default. However, default provisions seem most likely to be accepted where there is considerable uncertainty, and income tax liability often is uncertain.

Timely reminders

A number of nudging suggestions can be thought of as "timely reminders". People are notoriously bad at remembering to do things that are good for them even though they may intend to do them. Remembering to take pills is a well-known example. As Thaler and Sunstein point out, it is a great deal easier for women to remember to take contraceptive pills when placebos are included for days on which no active ingredient is necessary.

Both common sense and much psychological research indicate that it is better to store reminders in the environment rather than your memory. Hence appointment diaries, shopping lists, and highlighter. More subtly, an important element in getting anger management or treatment of child molesters to work effectively is to teach recognition of the beginnings of anger or desire so that escalation can be avoided early.

American and European drivers are prone to traffic accidents when they forget to drive on the left-hand side in New Zealand. Hence, printed reminders on rental cars and signs on roads. Good idea, but their timeliness could probably be improved. Notoriously, people forget which is the correct side to drive on just after they have pulled off the road to look at something. This suggests either putting up the signs on the exits from scenic look-out points or having warnings flash on intrusively when the car is restarted.

Feedback

Feedback is necessary for effective learning. Without it, we get an “illusion of expertise” as Dawes puts it. Feedback is generally best when it is fast, frequent, and (of course) accurate. Real life provides any number of examples of feedback failure. For example, the harmful effects of cigarette smoking are very slow to develop. Poor investment choices only become obvious after some years. If you stop exercising, the effect on your fitness will often not become obvious for weeks.

In general, New Zealand government departments seem quite aware of the importance of evaluative feedback. The issue is rather one of providing feedback to the general public. A key ingredient to changing behaviour is to introduce feedback so that people can readily see the consequences. So, for example, the dashboard displays on hybrid cars make it easier to reduce petrol consumption by giving immediate information on how much petrol rapid acceleration or braking consume. Vodafone cleverly sends out messages to people suggesting they might do better to change the plans they are on. By contrast, the present system for dealing with crime generally gives rather poor feedback (long delays and rather low probabilities of picking up minor crime). Health measures that have long-term payoffs (e.g. taking pills to control blood pressure) might benefit from having short-term rewards.

Nudging responsibility

One implication of nudging is that there is a responsibility to be attentive to detail when making or implementing policy. Sometimes this responsibility becomes quite onerous. In the 1990s because of the obvious inability of the German public to choose the cheapest among a vast range of German Rail fares, it was made the legal responsibility of the ticket sellers to sell the cheapest option. And, of course, the complexity of different government policies, often administered by different government agencies, is likely to produce nudging in different directions. To take another German example, to reduce carbon dioxide emission levels, the German government very actively promotes wind and solar technology. Less well-known is that the federal government still subsidises coal production (although, to be fair, it was recently decided to be phase this out).

At first sight, the recent bubble in New Zealand house prices seems hard to understand. Certainly, a number of authoritative commentators, most prominently Dr. Bollard, warned for some time that house prices were being progressively inflated. Yet at the same time there was much official concern about getting people to save for their retirement. But how should people save? In fact, most individual investment was in housing, perhaps because this was the form of investment that – at least in 2006 – inspired most trust in New Zealanders. (Braithwaite & Kemp, 2007).

Public perceptions

As the trust result indicates, there can be a considerable gap between government intentions and public perceptions. Of course, not only might government agencies misunderstand how they are influencing public behaviour, but also the public might not perceive what the government is doing. For example, between 2002 and 2007 there was a marked change in New Zealand government spending. The combination of lower spending on Unemployment and Domestic Purposes Benefits and an increased tax take meant that a marked increase in spending on a number of areas, such as education and health, could be sustained. However, a survey undertaken in 2008 showed that neither the changes in spending nor any change to service quality were in fact much noticed by the public. (Kemp, 2009.)

These results show that it is not always safe to assume that the public knows about large change in policy. It is also not safe to assume you know why people might hold the views they do.

For example, it's quite well-known that people are often resistant to importing from low-wage countries. But is this mostly because they think it is unfair that workers at home would become unemployed because of unfair competition or because they don't want to exploit the foreign workers? Well, the evidence from both NZ and the eastern part of Germany suggests that it's mostly not wanting to exploit them (Kemp, 2008). Mind you, whether this makes sense or not is another question!

Results of this kind are important partly because they serve as a way to evaluate government policy. But they are important for another reason too. If it is desirable to nudge people in a particular direction it is important to know something about how they see the world. Where are you trying to nudge them from? Is your nudge likely to be noticed?

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