Behavioural economics and public policy: some insights

Ian McAuley

Public Sector Finance,
University of Canberra,
ACT 2601, Australia
E-mail: mcau@netspeed.com.au

Abstract: The findings of behavioural economics can help guide public policy, particularly regulatory design. While behavioural economics has only recently arisen as a defined discipline, many long-established regulations employed by governments are found to be consistent with the findings of behavioural economics.

Keywords: public policy; behavioural economics; behavioural economics; behavioural finance; behavioural finance; prospect theory; defaults; asymmetric paternalism.

Reference to this paper should be made as follows: McAuley, I. (2013) 'Behavioural economics and public policy: some insights', *Int. J. Behavioural Accounting and Finance*, Vol. 4, No. 1, pp.18–31.

Biographical notes: Ian McAuley worked in the Australian Public Service in Canberra and overseas on economic policy until 1986. Since then he has worked for on a contract basis for government agencies, the OCED, consumer and welfare organisations on consumer and behavioural economics, and until his retirement in 2005 was a Lecturer in the School of Government and Management at the University of Canberra.

1 Introduction: dispelling notions of novelty

There is nothing novel about behavioural economics. For example, in 1739 Hume wrote on what would later become known as *hyperbolic discounting*:

> "There is no quality in human nature, which causes more fatal errors in our conduct, than that which leads us to prefer whatever is present to the distant and remote." (Hume, 1739)

More generally, Adam Smith in 1759 referred to the tension between the 'indifferent spectator', cool and calculating, and the 'fury of his desires' (Smith, 1759). Behavioural economists have identified several more specific behavioural references in Smith's writing, such as loss aversion ("we suffer more … when we fall from a better to a worse situation, than we ever enjoy when we rise from a worse to a better"), overconfidence ('overweening conceit'), and a concern for fairness in transactions (Ashraf et al., 2005).

Perhaps the Christian invocation 'lead us not into temptation' can be seen as a more ancient recognition of limits on self-control.

Knowledge of the psychological foundations of consumer behaviour is basic to the discipline of marketing; marketing students and practitioners would find little that is new in behavioural economics (but they may be surprised when findings of behavioural economics question some of the assumptions of advertisers). The firm that offers a cash back refund rather than a discount is acting in accordance with prospect theory's findings on reference-point dependence. Insurers have long known that people tend to think about loss from a zero base (thus heightening their loss aversion), and that people find it difficult to conceptualise and compare risks with low probability. Advertisers know to appeal to immediate product benefits, while pushing long term costs into the background.

2 Where behavioural economics fits: filling in microeconomics

Macroeconomics, with its attention to production, consumption and employment, has a long-established empirical base. In public policy applications, macroeconomic management is often concerned with behavioural responses – particularly confidence and expectations. The framing of statements by Governors Greenspan and Bernanke, and the bulletins of central bankers take on an importance almost commensurate with movements in the official interest rates.

Financial markets have readily accommodated behavioural theory. This is understandable, for there are high and immediate financial rewards for knowing investors' biases and for being able to profile the behavioural characteristics of different classes of investors. Behavioural finance, a branch of behavioural economics, has a well-established research base.[1] Stockbrokers are well aware of investor biases such as the endowment effect, overconfidence, and their use of crude heuristics in asset allocation. Stockbroking firms produce booklets on behavioural finance for their clients.

Elsewhere in microeconomics, however, behavioural economics has difficulty in finding its place. Microeconomics has a solidly-established academic base, which leaves little room for the intrusion of theory which comes from outside that base. It is taught on the basis of axioms of consumer behaviour. An example is the notion that consumer preferences are stable and exogenous to the economic model (A visit to a shopping mall, however, is all it takes to enough to dispel this notion).

This is not to suggest microeconomics needs to abandon its axiomatic base. But it does point to a deficiency in the discipline, particularly in undergraduate courses.

Nor is it to suggest microeconomics ignores real world phenomena. Economists apply empirical research to important policy questions, such as the price elasticity for energy, and the effects on the labour market of changes in real wages. But such empiricism is often what philosophers refer to as 'narrow inductivism'.[2] Relationships, such as the way demand varies with price, are researched, but with little attention to any underlying theory of consumer behaviour, even when those findings are at variance with the axioms of microeconomics.

One source of resistance to behavioural economics is its supposed dependence on laboratory studies. There is a large body of research, a subset of behavioural economics, known as 'experimental economics', in which biases are tested in pure conditions with hypothetical cases or low-stake simulations. But there is an expansion of behavioural studies into real-world markets, such as Sendhil Mullainathan's study of 70,000 customers of a South African bank, which found the biases identified in laboratory studies carried over to situations where the stakes were several orders of magnitude

higher.[3] Early studies on choice overload by Sheena Iyengar and Mark Lepper were conducted on small items, such jam in supermarkets, but Iyengar found similar results when she looked at choice of 401K pension plans (Iyengar and Lepper, 2000; Iyengar et al., 2003).

An accommodation of behavioural economics within the mainstream of microeconomics is possible, however. Just as engineers and physicists constantly move between empirical and deductive analysis, so too can economists. Behavioural economics has a role in providing a testable theory of consumer behaviour with explanatory and predictive power, which can be applied to practical policy situations. Camerer and Lowenstein (2002) has suggested refining the building blocks of microeconomics by integrating them with the findings of behavioural economics – for example replacing the notion of expected utility with the findings of prospect theory, and replacing discounted utility with hyperbolic discounting.

3 Public policy: already under the influence

In public policy, apart from some recent developments such as New Zealand's *Kiwisaver*, there is little explicit reference to behavioural economics. But, like Molière's Monsieur Jourdain who found he had been speaking prose all his life, government policies have long been guided by implicit knowledge of behavioural economics. Some examples:

- *The money illusion*. That is, people's tendency to think of money in nominal rather than real terms was an essential component of the Keynesian solution to unemployment. In Australia in the 2007 election there were claims about interest rates under Labour and Coalition (conservative) governments, where the rates cited were always nominal.
- *Self-control failures and hyperbolic discounting* have been behind Australia's system of compulsory superannuation. It is notable that when it was introduced in 1985 it was taken out of a nominal wage rise and was therefore implemented with little political cost, as predicted by prospect theory and the money illusion.
- *Prospect theory* could be seen to support the proliferation of government programs. Prospect theory predicts that the utility of two benefits of $X is greater than the utility of one benefit of $2X.
- *Personal accounts*. The tendency for people to compartmentalise different receipts and outlays influences the way in which governments dispense welfare and similar payments. A once-off payment is more likely to be spent, while a permanent payment will more likely be subject to the recipient's marginal propensities to consume or save. A tax 'rebate' may be spent (or saved) in a different way from a 'baby bonus'.
- *Over-optimism* could explain why many governments have mandated 'cooling off' periods for major purchases.

Sometimes policy consistent with behavioural principles can result from serendipity. An analysis of Australia's motoring taxes, which, in some states involve increasing registration fees and stamp duties dependent on vehicle weight or engine capacity,

would conclude that it would be more rational to tax vehicle use rather than ownership, probably through a higher gasoline tax. The present mix of taxes reflects Australia's historical federal/state divisions, but this mix also happens to align, in part at least, with the consumer bias of applying too high a discount to longer term running costs. Contrary to the rational ideal, it is probably more effective to discourage purchase of high fuel-consumption vehicles with an upfront tax rather than a higher gasoline tax.

4 How behavioural economics can contribute to evidence-based public policy

At this stage behavioural economics offers no simple framework akin to the theories of information failure generated within conventional microeconomics. This reflects the stage of development of the discipline, and it also reflects its eclectic base from personal psychology, social psychology, game theory and even neurology. None of these disciplines has a neat set of axioms comparable to those underpinning conventional microeconomics.

But as the discipline develops it becomes evident that behavioural economics can make significant contributions to public policy, helping policy-makers in designing more cost-effective interventions and in avoiding ineffective or high-cost interventions. A useful policy-related guide has been produced by the New Zealand Ministry of Economic Development.[4]

Some practical suggestions for how the findings of behavioural economics may guide public policy are provided below.

4.1 Regulation for conservatives

Colin Camerer and his colleagues have proposed a principle of *asymmetric paternalism* to guide public policy interventions. Such intervention is relevant not only when failure results from behavioural biases but also more generally when failure results from information deficiencies. They reason:

> "A regulation is asymmetrically paternalistic if it creates large benefits for those who make errors, while imposing little or no harm on those who are fully rational. Such regulations are relatively harmless to those who reliably make decisions in their best interest, while at the same time advantageous to those making sub-optimal choices." (Camerer et al., 2003)

It is possible to amplify their classification of 'those who make errors' along two dimensions – sophisticated vs. naive (information deficiencies), and disciplined vs. undisciplined (subject to succumbing to costly behavioural biases) (Gans, 2005a).[5] Sophisticated consumers are adequately informed about the products they are purchasing and about the biases which, if unchecked, may influence their decisions. Disciplined consumers are able to act to overcome any biases (but are not always well-informed). In relation to credit cards, for example:

- a sophisticated and disciplined consumer uses the credit card in the interest-free period, and pays it off before the deadline

- a sophisticated and undisciplined consumer uses the credit card, intending to pay it off, but when the time to do so arrives the bias of hyperbolic discounting comes to play and he or she goes into high-interest debt
- a naive and undisciplined consumer uses the credit card, perhaps to the limit, without even considering the opportunity to pay it off in the interest-free period
- a naive and disciplined consumer may refuse to use a credit card at all.

Economists have wondered why, in a market with many players, credit card interest rates have remained so high – in comparison with the mortgage market for example, where risks are no lower but where the benefits of competition have been realised in lower interest rates.

An explanation can be found in behavioural economics. Undisciplined consumers allow credit card providers to maintain high rates, for, at the time of use, they do not consider the impact of interest rates (the sophisticated believe they would not have to pay any interest, and the naive do not consider the matter at all). There is no point in issuers lowering their rates, because no classes of consumers really care about interest rates (they may care *ex post*, but not *ex ante*), and lower rates would deprive card issuers of revenue and may attract more customers who would have difficulty in repaying their balances (Ausubel, 1991).[6]

This is a case where behavioural biases have shaped a whole market. Competition to offer credit cards, usually focussing on front-end benefits (such as low interest honeymoons) while downplaying long term costs, has resulted in a market with a set of cross-subsidies which favour one group over another.

Is there an appropriate policy response in line with asymmetric paternalism? One example of a response, used in some countries, is to require credit card issuers to warn of the consequences if only minimum payments are made. Such an intervention need not be costly.

In markets such as residential real-estate, cooling-off periods would seem to satisfy the asymmetric paternalism criterion. Because real-estate transactions take a long time, the cooling-off period imposes no costs on the sophisticated and disciplined buyers, and it may save sellers or their agents from having to deal with customers who are dissatisfied or who will have problems in getting finance.

4.2 Working with biases: defaults

It may be possible to guide people to wise choices which align with their biases, while allowing them the freedom to make other arrangements.

The New Zealand ‘Kiwisaver’ is a case in point, in which the default is for workers to be enrolled in a pension plan which takes a percentage of their income, but they have the choice of opting out. The question of whether 9%, 12% or 15% is an adequate level for superannuation (while avoiding the risk of over-investment in superannuation) could be resolved, in part, by having default provisions at 12% or 15%, with the option of dropping back to 9%.

One problem in superannuation is that many risk-averse investors, over-concerned with loss aversion, opt for low volatility/low yield products, such as capital stable funds. A default in superannuation could be to enrol anyone less than a certain age (i.e., those

with a long term remaining) in growth funds, while preserving the choice to opt to different funds.

Consumer transactions such as car rental agreements can be presented with collision insurance as a default, but with an opt-out provision.

4.3 Motivating behaviour

Psychologists point out that in many cases extrinsic rewards can extinguish intrinsic motivation.[7] Governments, wishing to encourage forms of civic behaviour, such as engaging in environmental work or helping in schools and museums, may be tempted to offer financial incentives for such behaviour, but in so doing may reduce people's intrinsic motivation.[8] For example governments in Australia are concerned that the low pay for jurors is encouraging many to find ways to opt out of jury service. Might abolition of pay altogether be more effective than a token pay rise?

4.4 Testing consumer reactions

Where important regulation is involved, public policy texts generally advocate use of *ex ante* and *ex post* evaluation – advice which is often bypassed. Behavioural economics, with its emphasis on empiricism, reinforces this advice, with the warning that consumer (and producer) reaction to intervention will not always be in accordance with the assumptions of microeconomics.

For example, in 2002, there was a proposal by the US Department of Housing and Urban Development to require housing loan offers to disclose the commission which would be taken by mortgage brokers. The Federal Trade Commission conducted a major crossover trial on consumers with hypothetical offerings, and found that such disclosure tended to distract consumers from the real value of the loan; those who had such information made poorer choices (Lacko and Pappalardo, 2004).

5 Some more open questions in public policy

5.1 Merit goods

Conventional economics can easily accommodate public support for merit goods when there are positive externalities of consumption (and discouragement of consumption when there are negative externalities). As a case in point Canberra has a long-standing tradition of providing free trees to new homeowners.

There is another class of merit goods, however, for which communities decide there is a premium on their value not necessarily related to external benefits. While utilitarian ethics, as proposed by Bentham, holds that all pleasures are equal, Mill proposed that some activities had value quite apart from their immediate enjoyment (Even if playing pushpin and reading poetry lead to the same enjoyment, the latter has more value by Bentham's judgement).

Governments have moved some distance away from the notion of merit goods (and 'sin taxes'). Gone are the complex sumptuary taxes which were part of Australia's pre-2000 wholesale tax regime, which applied high sales taxes on 'luxuries' such as

television sets and automobiles. But there are still subsidies for many artistic and cultural activities, for which it is difficult to establish the existence of positive externalities.

We can possibly use a utilitarian argument to justify support for merit goods. I would not choose to listen to Wagner's music unless encouraged to do so by a subsidy, but once I do so, I may come to enjoy it. Australians, conditioned by the tradition of traditional European arts, may need encouragement to appreciate local or innovative arts. Provided the cost of the subsidy is less than the value of our eventual (*ex ante*) enjoyment, discounted by a suitable factor, the subsidy passes on benefit-cost criteria. After all, this is the way we acquired a taste for oysters and broccoli; without paternalistic (or maternalistic) intervention, we would never have come to such enjoyment. But the notion of an acquired taste is hard to accommodate within conventional economics, with its notion of stable preferences.

A robust theory of consumer behaviour should help policy makers learn about the acquisition of tastes; guided, the question of support for merit goods (and discouragement of other consumption) may become somewhat more objectively based.

5.2 Addiction and self-control

Once we are subject to addiction, our demand curve becomes essentially inelastic at some point of positive consumption. Most nicotine or gambling addicts will state that they do not want to have such a demand curve, but that they are entrapped (To an extent this is the mirror-image case of merit goods. For merit goods we gain utility with habituation, while for addictive harmful goods we lose utility with habituation).

Only one with an extreme libertarian stance would advocate a *laissez faire* approach to goods with harmful personal addiction.

In some cases individuals can enter a self-binding contract between the 'rational I' and the 'weak I'. Ulysses in his encounters with the Sirens provides an example used by many behavioural economists. Schelling's alarm clock story is a more homely example. In his seminal essay on self-control, he posits a case in which, on retiring, the 'rational I' intends to arise at 5 am to go for a jog, and sets the alarm clock accordingly. But the 'rational I' knows that at 5 am there will be a 'weak I' responding to the alarm, who will kill the alarm, turn over, and go back to sleep. The solution is to place the alarm clock on the other side of the room, out of reach of the bed – a simple pre-commitment device. The example is simple, but the notion of pre-commitment has wide-ranging implications (Schelling, 1984).

Opportunities for individual contracts, of the type employed by Ulysses and Schelling, are limited. Such contracts are usually on a collective level, for example when we prohibit the use of methamphetamine or heroin.

In situations when addiction is not universal, but varies from person to person, there is usually a public policy problem. In only a few cases is there the option of an individual self-binding solution, such as the provision in some jurisdictions for gamblers to ask to be excluded from casinos (Notably the Australian Productivity Commission, in its 1999 report on gambling, noted the absence of pre-commitment options, including self-exclusion arrangements).[9] But in relation to alcohol, gambling and other goods, collective prohibitions or penalties will generally impose costs on those who do not require such external controls (and, at an extreme, on those who do not object to an addiction to what most people would find harmful).

Water rationing and paternalism

In times of drought water rationing in Australia reaches heights of paternalistic intervention not seen since the fall of Soviet Communism. There are detailed restrictions on what water can and cannot be used for – for example, in the Australian Capital Territory, during the long drought of the early 200s, it was permissible to clean motorcycles only once a month, from a bucket.

A pure market solution, involving legible metering and high prices, would raise serious questions of equity. But a behavioural-based policy, producing the same allocative outcome as a market solution, may be feasible. Consumers could be allocated the first X litres of water a month free, with a steep charge for additional use – perhaps even a fixed fee on top of a volume-related charge. On the assumption that the price elasticity of demand for these X litres is very low, there would be no distortion in making it free (in any event there would still be a fixed access charge).

Given people's aversion to crossing the threshold between free and charged provision, there would be a strong behavioural incentive not to exceed the free allocation. And the paternalistic specifications on how water can be used could be abandoned.

5.3 Fairness

Research in behavioural economics establishes that people seek fairness in their transactions; we are concerned not only for our own welfare but also for the intrinsic fairness of the transaction. This is illustrated in laboratory situations such as the ultimatum games and the dictator games. It is also illustrated in everyday life, for example when people take legal action over apparently trivial stakes.

Conventional economics can accommodate our demand for fairness by positing a set of indifference curves, with 'fairness' on one axis, and 'all other goods' on the other. When we are observed to act against our self-interest, such a model suggests we gain utility from fairness or 'psychic rewards', which are difficult for the observer to recognise, but which must exist in order for the model to be consistent with the axioms of microeconomics.

While such a construction may conform with the axioms of microeconomics, it is of little use for public policy, for in its 'all explaining' mode it has no predictive power; in fact it leads to no testable hypotheses.

Behavioural economics accepts fairness as a constraint on immediate self-interest. There are competing explanations, but the most compelling explanations are in terms of collective benefits. When I incur a net cost to avoid an unfair deal, I am contributing to social capital by penalising those who are behaving unfairly. Theories of social evolution suggest that societies with a high stock of social capital have an advantage over those which do not.[10]

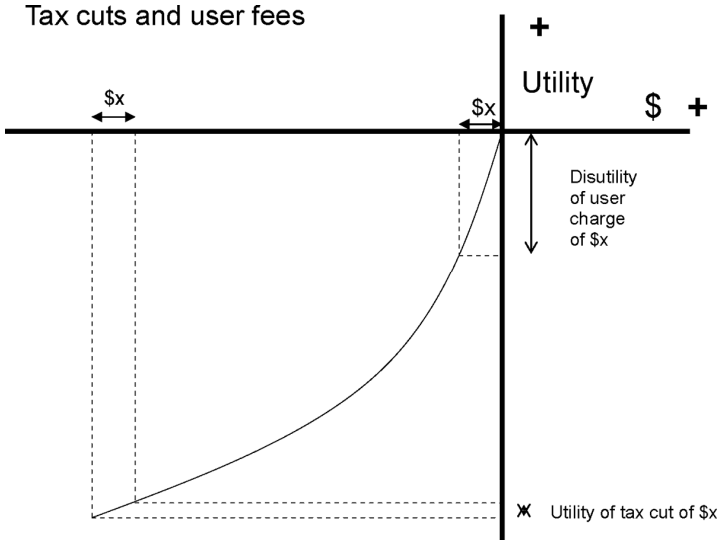
There can be failures in public policy resulting from a failure to consider consumers' desire for fairness. A prominent example is a road tunnel in Sydney going under that city's congested DBD, which initially had a $A3.56 toll. Anyone who has driven along the surface roads which the tunnel bypasses can vouch that in terms of vehicle operating costs and a modest opportunity cost of time, $A3.56 is not a high charge. But it was not seen to be a legitimate charge; people resent selective user charges in what is otherwise a 'free' road system, particularly when many of the benefits are external to the user (in the tunnel case in the form of lower congestion in the streets above), when, through road closures, choice is being restrained, and when the project is associated with large payments to a private firm.

5.4 User charges generally

Indeed, user charges generally are subject to high political costs unless they are handled with sensitivity.

Even if user charges are perceived to be fair, prospect theory predicts that people resent paying for what was previously free. This holds even if the user charge is offset by a tax reduction, for the utility of the tax reduction, occurring at the tail of the utility curve, is much less than the disutility of a move from free to a charged service which occurs with reference to the origin See Figure 1 for a graphical presentation (This is quite apart from transaction costs, which are recognised in conventional economics). Furthermore, people's concern for fairness in transactions will result in resentment if people believe there are cross-subsidies or other inequities in user charges.

Figure 1 Tax cuts and user fees (Envy and Schadenfreude)



Envy is a specific aspect of our concern for fairness, but it is not easily incorporated into conventional economic models.

Jon Elster identifies two forms of envy. *Weak envy* is the disutility I suffer at seeing another's gain which I do not share ("Every time a friend succeeds a little part of me dies"). It is the flip of *schadenfreude* ("the pleasure I gain from seeing two BMWs colliding"). *Strong envy* occurs when I am prepared to pay a personal cost in order to see the other person brought down (Elster, 1991). In repeated round prisoners'-dilemma situations participants often forget that their objective is their own welfare; rather they become guided by the displaced objective of punishing the other side for past transgressions, at personal cost (see, for example, Camerer (2003)).

Those who provide policy advice on diplomacy and international relations are well aware of envy, in both its forms, and frame their recommendations accordingly. In economic policy advice, policy-advisers may be constrained by a narrow Pareto notion of welfare, while overlooking the possible intrusion of envy.

5.5 Prospect theory and attitudes to risk: public and private insurance

There are several biases in relation to risk:

- *An inability to conceptualise and compare risks with low probability*. A 1/1,000,000 risk may command almost the same attention as a 1/1000 risk.
- *A heightened awareness of risks with vivid consequences*. The risk of fatal shark attack attracts more attention than the (higher) risk of a fatal bee sting.
- *Framing biases*. The pain of loss or the pleasure of a gain depends on the frame in which we see the loss or gain. For example, we may consider the risk of loss of our baggage while travelling to require insurance if we think about that loss in isolation, but not if we consider the value of our baggage in the context of all our other possessions.
- *Pseudocertainty*. Rather than taking a portfolio approach to risk, we tend to over-insure against certain categories of risk while leaving ourselves over-exposed in others.
- *Over-optimism*. "It won't happen to me", "I'm a much safer driver than the average person".

These biases raise two questions in public policy – the extent to which public risk-reducing resources should be allocated on objective criteria rather than on biased interpretations, and the extent to which government agencies should try to compensate for people's biases in relation to personal risk management.

A rational benefit-cost approach would suggest that at the margin any intervention designed to reduce death or injury should have the same effectiveness per dollar, but this is not the case. Research on public interventions in relation to risk reveals high levels of inconsistency – for example between airline safety and motor vehicle safety (see, for example, Trebilcock (1990)). An obsession of these times relates to the risk of aviation terrorism.

Should public policy, in allocating regulatory resources, respond to perceived risk or to actual risk? Should public agencies educate citizens to try to get them to take a more rational approach to risk, even if this is to the disadvantage of a government with a political stake in drawing awareness to some classes of risk?

When it comes to personal decisions, particularly insurance decisions, should public agencies try to educate people to overcome their biases? This may appear to be an uncontentious case for correcting an information failure, and for ensuring that people are adequately insured for contingencies which may otherwise result in a call on public finances (for example, in paying for drought relief). But in some areas, such as health insurance in Australia, governments consciously seek 'community rating', encouraging those with low risk to over-insure to cross-subsidise those with high risk.

5.6 Choice overload

Behavioural research shows that excess choice, in some circumstances at least, leads to consumers making no choice, resulting in a deadweight loss. Strong interventions to guard against choice overload may include restrictions on entry into certain markets (This would not necessarily be costly in markets for simple fungible commodities,

but could stifle innovation in other markets). In some circumstances defaults could be used to guide consumers to particular products, with the option of easy switching (This has competition implications, in that it would privilege one supplier, unless it is coupled with a randomising device).

It is possible that in some markets such as water and electricity, where there is no choice of product (only choice of billing intermediary) consumers do not want choice, and are willing to forego the minor benefits of competition to be relieved of the burden of having to make a choice. This burden goes beyond the transaction costs of choice, which is covered in conventional economics. There is also the anxiety of possible regret, of opportunities foregone. Am I on the cheapest electricity plan?

There is evidence that in choosing utilities consumers underestimate the transaction costs of future switching – a bias of over-optimism or of hyperbolic discounting. Joshua Gans suggests that competition, in itself, does not necessarily bring consumer benefits; in cases it can lead to over-consumption if suppliers exploit consumers' biases (Rather than suppressing competition, however, Gans (2005b) suggests making switching costs lower and loading fees upfront to overcome the bias of hyperbolic discounting).

Choice overload is a specific case of what has come to be called *confusopoly* – the inertia resulting when real or perceived transaction costs result in consumers avoiding transactions or staying with their current suppliers. While conventional economics acknowledges transaction costs, the response to consumer stickiness is often to mandate the provision of more information, which can lead to overload (such as 120 page financial product disclosure statements for initial public offerings). Behavioural research into how people seek and process information may lead to a reduction in mandated information, with a greater focus on relevance.

5.7 Advertising

Perhaps the most contentious issue in behavioural economics relates to the regulation of marketing – advertising in particular.

Of course there are already many regulations on the presentation of goods, generally based on correcting information failures. The borderline between conventional economics and behavioural economics is not sharp. For example, a requirement for a food label to specify fat content can be seen in terms of information provision, but the form in which that information is provided can be seen in behavioural terms. The framing of information is crucial; '95% fat free' evokes a different reaction to 'contains 5% fat'.

More basic problems relate to the promotion of substances providing immediate satisfaction while incurring long-term costs, such as foods with high sugar content. The case for regulation in relation to minors (whose capacity to use information may be limited and whose self-control mechanisms may not be fully developed) is stronger than the case in relation to adults, but even the protection of minors is a very contentious issue.

5.8 Corporate behaviour

Economics makes assumptions about corporations, generally along the lines that decision-makers in corporations are concerned with a single objective, such as profit, or the present value of the corporation's equity. But institutional economics, like behavioural economics, takes a more empirical view of corporate behaviour. Indeed, some of the earliest applications of the work of Tversky and Kahneman

were in training managers in overcoming biases in decision-making, and Simon's work was mainly concerned with corporate behaviour (see, for example, Bazerman (1986)). Executives in corporations may seek growth, market share, cash flow or other objectives at the expense of profit.

Whether such behaviour belongs in the realm of 'behavioural economics' or 'institutional economics', it is relevant for consumer policy. When a firm, such as a financial institution, seeks cash flow or market share, there is the likelihood of aggressive overselling, particularly if sales staff are placed on commission-based remuneration. For example, consumers may be persuaded to take loans they do not need and which they will have difficulty in repaying. Insurers may push policies with high moral hazard, to the disadvantage of all policy holders. If corporate behaviour were rational, there would be more caution in making loans and in selling insurance policies. But their focus on objectives such as revenue or market share, coupled with consumers' behavioural biases, can lead to consumer detriment, and, in the case of financial institutions, political pressure for bail-outs in the event of collapse.

In financial markets, both sellers and buyers can bring their optimistic biases to the market. Whether this is classified as a supply or demand side failure, it is still problematic.

6 Conclusion

At present there is no simple theory guiding policy applications of behavioural economics. In certain cases, behavioural economics is simply giving established practices new names, and, perhaps, a little more solid theoretical justification. But behavioural economics does fill in some important gaps, particularly in ensuring that policy-makers pay due attention to how consumers actually behave in market transactions.

As a general proposition, behavioural economics, in its reliance on evidence, can bring more rigour into policy-making, thereby helping regulators make lighter but more effective interventions in the market. Asymmetric paternalism, use of defaults, and generally the taking into account the findings of individual and social psychology can all be brought to bear on public policy.

Some important normative questions, such as the costs and benefits of paternalistic interventions, remain open. There is a view that even if paternalism passes cost-benefit tests in particular market situations, it still has system-wide costs, in that it raises expectations of paternalistic interventions in other markets and dulls consumers' vigilance. A counter view is that if people demand paternalism, then it is presumptuous (paternalistic) for regulators not to provide it.

These will probably remain open questions.

Acknowledgement

While some specific references are shown, many people have contributed to the ideas presented in this paper, in classes, seminars, conferences and discussions. They include Max Bazerman. Greg Barrett, Steve Bartos, Joshua Gans, Koichi Hamada, Jack McAuley, Joe Mulholland, Iain Ramsay, Andrew Reeson, Eldar Shafir, Thomas Schelling, Louise Sylvan and others.

References

Ashraf, N., Camerer, C.F. and Loewenstein, G. (2005) 'Adam Smith, behavioral economist', *Journal of Economic Perspectives*, Vol. 19, No. 3, Summer, pp.131–145.

Ausubel, L. (1991) 'The failure of competition in the credit card market', *American Economic Review*, Vol. 81, No. 1, March, pp.50–81.

Bazerman, M. (1986) *Judgment in Managerial Decision Making*, Several editions, Wiley, First published in 1986.

Camerer, C. (2003) *Behavioral GameTheory: Experiments in Strategic Interaction*, Russell Sage Foundation, Published by Princeton University Press NJ.

Camerer, C. and Lowenstein, G. (2002) 'Behavioral economics: past, present, future', Chapter 1 in Camerer C., Lowenstein G. and Rabin, M. (Eds.): *Advances in Behavioral Economics*, Russell Sage Foundation, NY published by Princeton University Press, NJ.

Camerer, C., Issacharoff, S., Loewenstein, G., O'Donoghue, T. and Rabin, M. (2003) 'Regulation for conservatives: behavioral economics and the case for 'asymmetric paternalism', *University of Pennsylvania Law Review*, Vol. 151, pp.1211–1254.

Elster, J. (1991) 'Envy in social life', in Zeckhauser, R. (Ed.): *Strategy and Choice*, Chapter 3, MIT Press, Cambridge, MA.

Gans, J. (2005a) 'Protecting consumers by protecting competition: Does behavioural economics support this contention?', *Competition and Consumer Law Journal*, Vol. 13, No. 1, pp.40–50.

Gans, J. (2005b) *The Road to Confusopoly*, Available on the ACCC Conference, Website at http://www.accc.gov.au/system/files/Joshua%20Gans%20(slides)%20-%20The%20Road%20to%20Confusopoly.pdf

Hume, D. (1739) *A Treatise of Human Nature*, Book 3, Part II,Sect. vii. 'Of the Origin of Government'.

Iyengar, S. and Lepper, M. (2000) 'When choice is demotivating: can one desire too much of a good thing', *Journal of Psychology and Social Psychology*, Vol. 79, No. 6, pp.995–1006.

Iyengar, S.S., Jiang, W. and Huberman, G. (2003) *"How Much Choice is Too Much?: Contributions to 401(k) Retirement Plans"*, Pension Research Council Working Paper, The Wharton School, University of Pennsylvania.

Lacko, J. and Pappalardo, J. (2004) *The Effect of Mortgage Broker Compensation on Consumers and Competition: A Controlled Experiment*, US FTC Bureau of Economics Staff Report 2004, Available at http://www.ftc.gov/os/2004/01/030123mortgagefullrpt.pdf

Schelling, T. (1984) 'The intimate contest for self-command', in Schelling, T. (Ed.): *Choice and Consequence: Perspectives of an Errant Economist*, Chapter 3, Harvard University Press, Cambridge, MA.

Smith, A. (1759) *The Theory of Moral Sentiments*, Part 3, Chapter 4.

Trebilcock, M. (1990) *Taking Stock – Consumerism in the 1990's*, Conference Paper, Faculty of Law, University of Toronto.

Notes

[1]See, for example, the two volumes *Advances in Behavioral Finance* edited by Richard Thaler (Russell Sage 1993, 2005).

[2]A term developed by Carl Hempel *Philosophy of Natural Science* Prentice Hall 1966 to refer to empirical studies which occur in the absence of any underlying hypothesis.

[3]For a simple outline of Mullainathan's experiment, see Craig Lambert 'The marketplace of perceptions' *The Harvard Magazine* March–April 2006.

[4]New Zealand Ministry of Economic Development "Behavioural Analysis for Policy, New Lessons from Economics, Philosophy, Psychology, Cognitive Science, and Sociology" 2006, available at www.med.govt.nz

[5]A classification derived from Gans (2005a).

[6]For a description of how this dynamic sustains a high interest rate, see Ausubel (1991).

[7]See, for example, Alfie Kohn *Punished by Rewards* (Houghton Mifflin 1993).

[8]Dr. Andrew Reeson of the CSIRO is researching the effects of payments for engaging in environmental work.

[9]Productivity Commission *Australia's Gambling Industries* Report # 10 Productivity Commission September 1999.

[10]See, for example, Martin Nowak, Robert May, Karl Sigmund "The arithmetics of mutual help" Scientific American June 1995. This is an extension of Robert Axelrod's simulation of repeated-round prisoners' dilemma situations, outlined in his work *The Evolution of Cooperation* (Basic Books 1984).