

New Insights Lecture on “Behavioural Economics and Public Policy”

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Introduction

Professor Jack Knetsch started the lecture by advocating the use of sound economic theory and behavioural assumptions in public policy analysis, to avoid bad predictions. Behavioural economics is a field that has its roots in economic psychology and applied research in marketing. Its name is in a way a misnomer because economics ought to include the study of human behaviour. Its pioneers are Daniel Kahneman, who was awarded the Nobel Prize for Economic Sciences in 2002 for his contributions to behavioural economics, and Amos Tversky. Their 1979 article on “Prospect Theory: An Analysis of Decision Under Risk” in *Econometrica*, discussed the different valuations of economic gains and losses by people and is one of the most cited papers in economic literature.

Loss Aversion

Presenting the results of his previous experiments, Prof Knetsch illustrated that people tend to place greater value on reducing losses than increasing gains of the same magnitude, even though the costs of both are the same. Although there are some exceptions where people value gains more than losses, most people are averse to losses. People also value future gains less than future losses of the same magnitude, and use different discount rates for both. In addition, people are less averse to commitments in the future than in the present.

One experiment conducted by Prof Knetsch and his associate Anthony Chin involved surveying a group of Singaporeans on their preferences to restore a damaged bridge or improve a road. Participants were told that both proposals cost the same amount and conferred the same benefits to the same group of people. Although participants were given the option of indicating indifference between the two proposals, more voted to restore the bridge than the other two options. Prof Knetsch explained this result signified that people value the reduction of a loss more than a gain.

Opting in versus Opting out

There are also differences in people’s responses to schemes that require them to opt-in or opt-out. Research showed that participation rates for opt-out schemes tend to surpass similar schemes requiring participants to opt-in. This could be due to participants’ inertia or a general aversion to making decisions. It could also be traced to the concept of loss aversion—opting-out would be perceived as losing something that they would have enjoyed if they stuck to status quo, whereas opting-in would be perceived as a gain.

Prof Knetsch described how Richard Thaler and Shlomo Benartzi had been invited by a manufacturing firm in Chicago to advise on ways to modify its defined contribution pension scheme so as to increase employee participation rates. One of their recommendations was to revise the scheme from an opt-in to an opt-out approach. In addition, employees were asked

to indicate a proportion of their *future wage increases* that they would be willing to commit to the scheme, instead of getting them to make the commitment today on their current income. The rationale was that employees would be less averse to making commitments about their future income than their present income. Contributing part of their future wage increases would be perceived by employees as forgoing gains, which was less painful to them than the perceived losses of contributions from their current pay. The new scheme was called “Save More Tomorrow”.

Following the recommended changes, participation in the scheme increased from 3.5% to 11.6% in a couple of years, and currently stood at about 14%. However, Thaler noted that participants tended to cluster around the default contribution rate for the scheme. Studies of other companies showed that opt-in defined contribution pension schemes only received 25% participation, compared to 80% for opt-out schemes. Prof Knetsch added that the US’ opt-in organ donation scheme achieved less than 20% participation, compared to Europe’s opt-out scheme which exceeded 80%.

Mental Accounting

While standard economic theory assumes that people allocate their expenditure to optimise their utility, this may however not be in the case in reality. People have separate mental accounts for different sources of income and wealth, and types of expenditure, and their corresponding treatment of each is also different. There are varying propensities to spend for the different sources of incomes, and expenditures on different items are valued differently. For example, there could be a higher tendency to spend windfall income than regular income, and people sometimes make large item expenditures casually while procrastinating over small item purchases.

Prof Knetsch recounted how the provincial government of British Columbia tried to implement a property tax deferral scheme in Vancouver. The scheme allowed people to defer payment of property taxes until their properties were sold. In the meantime, the provincial government would pay the municipal government the deferred taxes, and collect the owed taxes from the sellers when the properties were sold, with an interest rate on the deferred taxes at 2 percentage points lower than the prevailing market borrowing rate. The objective of the policy was to help the cash-strapped elderly in Vancouver afford their property taxes (especially when property prices appreciate), instead of being forced to sell their properties. Although the scheme would benefit property owners and the municipal and provincial governments, participation rate for the scheme was less than 2% of eligible property owners.

Prof Knetsch understood that the unpopularity of the scheme was partly due to people’s aversion to being in debt. A better alternative, instead of requiring the property sellers to pay the deferred taxes, could be to transfer the responsibility to pay the taxes to buyers (who would then pay a correspondingly lower price for the property). This would remove the feeling of indebtedness and hopefully increase participation rates.

“Decoupling” Payment from Consumption

Prof Knetsch also explained the concept of decoupling payment from consumption. People tend to spend more when no immediate payment is required for the purchase. This decoupling effect can be seen in the usage of credit cards—people tend to spend more when they pay using credit cards because actual payment would only be made later when the credit card bills arrive. Although he thought that ERP (electronic road pricing) was a great invention in Singapore, Prof Knetsch felt that electronic deduction of the payment through cash cards lessened the pain of the toll and undermined the effectiveness of the ERP. It might be worthwhile to look into ways to address this.

Fixed-Cost Effect

Contrary to the standard economic assumption that people ignore sunk costs when making decisions and focus on marginal costs, behavioural economics asserts that sunk costs do matter in decisions. Hence, relatively high upfront vehicle taxes and COE (certificates of entitlement) prices could contribute to more intensive usage of cars in Singapore, as car owners might feel compelled to maximise the usage of their cars after incurring the high sunk costs. It would be worthwhile to study the effects of decreasing the fixed costs of car ownership and correspondingly increasing variable costs on vehicle usage.

Certainty Effect and Zero Risk

When economists measure the value of risk by calculating only expected gains and losses, they may be neglecting other important dimensions of risk that people focus on, e.g., whether the risk is voluntary, or whether it involved future generations or fatalities. Prof Knetsch explained that people attach a lot of value on certainty and zero risk. In a previous survey on the adverse effects of insecticide poisoning, people were found to value a reduction of risk from 0.0015 to 0 much more than 3 times that of reducing risk from 0.0015 to 0.0010.

Differences in Preferences and Behaviours

In response to questions on differences in behaviours across different cultures, age groups, education levels and gender, Prof Knetsch replied that no one had found any conclusive evidence showing that there were significant differences across cultures. However, he qualified that this does not mean that no differences exist.

Prof Knetsch and his associates had done a major study on people’s perception of fairness in Canada and the US. They asked people several questions on whether they considered changes in prices, wages and rents under different circumstances to be fair. They were surprised that they could not find differences between the perceptions of the Americans and the Canadians. Subsequent studies by others also did not find evidence of differences.

Although students of economics seem to be less affected by such behaviour than the average person, education does not appear to be very effective in changing people’s preferences and behaviour. People tend to act intuitively and do not change behaviour even when they become aware that it does not conform to economic rationality.

There is strong evidence around the world showing that women are slightly more risk averse than men. Prof Knetsch also commented that risk aversion in financial matters increases with age, i.e., older people tend to have more conservative portfolios. There could be sound

economic logic for such preferences, i.e. older people do not have as many remaining years to even out their financial losses and gains. Based on his observations, Prof Knetsch did not think that this positive relationship between risk aversion and age is true in other areas.

Usage of Behavioural Economics

Although the field of behavioural economics begun in 1979, it has yet to be included in basic economics textbooks. One applied area where there is growing interest is behavioural finance. As a behavioural and environmental economist, Prof Knetsch felt that environmental damages are grossly underestimated because few environmental economists apply behavioural economics in their research.

Prof Knetsch also explained that the low application of behavioural economics by policymakers could be due to the lack of appropriate incentives, the reluctance to apply new behavioural economic ideas to policy, and the tendency to follow more conservative approaches even if they may not be effective. Prof Knetsch concluded his lecture by advising policymakers to be aware of the intended policy objectives and extent of biases in preferences in order to formulate effective policies.

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