

ESSAY

Vale Daniel Kahneman, the philosopher who put economics on a new path

Ian McAuley

Policy commentator Ian McAuley reflects on the legacy of Daniel Kahneman, the grandfather of behavioural economics whose groundbreaking ideas have fundamentally changed our understanding of human decision making.

Daniel Kahneman, one of a handful of non-economists to win the Nobel Memorial Prize in Economics, died earlier this year, just three weeks after his ninetieth birthday.

He and his colleague Amos Tversky are acknowledged as the founders of behavioural economics. Had Tversky not died in 1996, he would certainly have been a joint recipient of the prize. Both served as psychologists in Israel's defence forces before furthering psychology studies at the Hebrew University of Jerusalem and working on how people make decisions. There was already a great deal of published work about how people *should* make decisions and plenty of awareness that people often make bad decisions, but little systematic work on how people make decisions. Tversky and Kahneman set out to find patterns in how people make decisions and see if there were rules guiding those patterns.

By now, behavioural economics is familiar to economists and non-economists. We know that people will not save enough for retirement without some 'nudge' or perhaps compulsion, because

we are biased to disregard or discount long-term benefits excessively. We know that people make poor decisions in situations involving risk, paying too much attention to outcomes with low probability. These come quickly to mind – highly elevated fear of air crashes and terrorist attacks being two of the best-known examples. We also know that people are guided by simple rules of thumb ('heuristics' in the language of behavioural economics) when they make decisions, focusing on readily available information rather than on information more relevant to the situation.

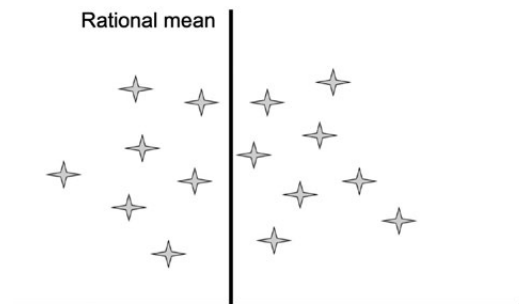
One interpretation of the work of Tversky and Kahneman is that they broke from economists' assumption that people are guided by rational self-interest in making decisions.

That does not do justice to their work or the philosophers who laid the foundations of economics, however. Adam Smith, for example, argued that behaviour was driven by a struggle between people's 'passions' and the 'impartial spectator',¹ a classification that aligns with Kahneman's differentiation between 'fast' and 'slow' thinking.² The advertising industry is built on the hope that people do not spend too much time or mental effort thinking about their choices. Advertisers' knowledge has been largely insulated from the knowledge base of economics. If everyone made slow, deliberate financial decisions, scammers would be out of business.

Economists have always known that people behave irrationally. That is why they spend much effort urging individuals and policymakers to act rationally. In some regards, it does not matter to economists that people are irrational, because while individuals' decisions may be sub-optimal, economists believe their decisions will generally be clustered around some rational means, as shown in the diagram below (Figure 1). Over time, as individuals gain

more market experience, they will learn and become more rational in their decision making. That idea is captured in the economic concept known as 'rational expectations theory'.

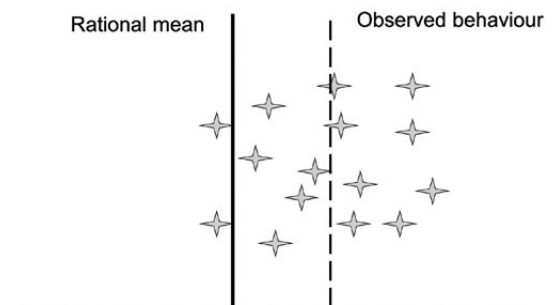
FIGURE 1



Behaviour clustered around "rational" mean

The contribution of Tversky and Kahneman, and those who have followed in their footsteps, studying how people make decisions, has been to illustrate that there are consistencies in how people's behaviour departs from the rational mean. To return to that same diagram, there is often an observed bias away from the rational mean (Figure 2).

FIGURE 2



Behaviour clustered around some other point — biased

1. Ashraf et al., 2005

2. Kahneman, 2011

As Peter Fritz pointed out in this journal:

‘Tversky and Kahneman’s research into “heuristics and biases” offered traditional economists a rigorous methodological framework to investigate and understand the psychological drivers of economic decision-making.’³

Applying that diagram to retirement savings, for example, a few people may be rationally saving enough for retirement, but most people are not. As Fritz’s words show, that departure from rationality can be observed, studied and built into a rigorous methodological framework.

Behavioural economics has contributed empiricism to a discipline short of well-conducted behaviour studies in the real world, but its acceptance has not followed an easy path. It has been a strong assumption of economics, in some dominant schools even an axiom, that decision makers equipped with adequate information tend to make rational decisions. If people are making poor decisions, all they need is more information. For example, this idea has generated lengthy product disclosure statements and advice for consumers to ‘shop around’ for their best electricity offer.

Some branches of economics have been akin to pure mathematics, built on a limited set of axioms and uncontaminated by empiricism. This contrasts with disciplines such as engineering, which has always involved a blend of deductive logic based on the laws of physics and empirical observations based on laboratory tests and the study of physical systems.

Of course, people are rarely presented with adequate information to make decisions. In 1947,

Herbert Simon developed a model of decision making that neatly dovetailed with the pure rational model and the real-world reality of inadequate and costly information. We rationally go on searching until the marginal cost of extra search closes in on the marginal benefit of extra search. It is not an entirely reliable process, but it is sensible, explaining reasonably well how we succeed in shopping, mating and finding employment.⁴

Behavioural economists follow a different path, however. They point out that the quick decisions we make, which we have become habituated to, are functional and usually lead to sound outcomes. That is the essence of Kahneman’s Nobel Lecture⁵ and of his book *Thinking, Fast and Slow*.⁶ We rarely follow a ‘rational’ decision-making process in the economists’ sense, and it is as well that we do not, because we could be frozen into indecision in situations where our wellbeing, perhaps our very survival, is at stake. Hence, the common reference to evolutionary learning involving humans and sabre-toothed tigers, and our learned behaviour is to stop suddenly when we see another driver running a red light.

There are times, however, when the use of those same quick processes leads to poor outcomes: when we buy a car with \$8,000 of extra features that we do not need, when we are over-impressed by the glibly articulate candidate for a job, when we buy a stock because we have been impressed by its rapid price rise.

We do these things not because we are stupid or lazy. We do them because they are based on behaviour that, when defined in terms of successful evolutionary adaptation rather than the axioms of economics, is ‘rational’.

3. Fritz, 2019

4. Simon, 1947

5. Kahneman, 2002

6. Kahneman, 2011

That does not mean we must accept these outcomes. Policymakers are concerned about ensuring we save enough for retirement, wear seatbelts, avoid overeating sugar and not fall victim to scams. Apart from a small minority of extreme libertarians, most people agree that there is some need for policy intervention. However, some fear behavioural economists are paving the way for a new paternalism – an expanded 'nanny state' in common parlance.

Perhaps that concern about paternalism explains the popularity of the book *Nudge*,⁷ by Richard Thaler and Cass Sunstein, both colleagues of Kahneman. A nudge is a gentle way of helping people make decisions that will benefit their individual or collective good while retaining their autonomy. It can involve changing default mechanisms, such as whether we 'opt in' to offer our organs on our death or 'opt out' of a universal scheme of organ donation. It can involve setting norms, such as the message in our hotel rooms: 'Most guests re-use their towels, but if you would like them cleaned ...'. The encouragement of behaviour change through nudges has earned the name 'libertarian paternalism'.⁸

Slightly more challenging than the idea of nudges is the work of Thomas Schelling, who complemented the ideas of Tversky and Kahneman. He, too, was awarded the Nobel Memorial Prize in Economics, but he described himself as an 'errant economist', because his work was outside the mainstream. While Tversky and Kahneman approached behaviour from the discipline of psychology, Schelling did so from the discipline of game theory, leading to a fusion of ideas about decision making from both disciplines. What brought their ideas

together was their concern about paternalism. If nudges fail, can people be required to do things in their self-interest? Schelling developed the concept of the 'I', which you will be some years down the track, being grateful that the 'I' many years ago was required to contribute to superannuation or to stop smoking. It is a framing entirely within the theories of rational self-interest, but it is outside economists' usual framework.

Tversky and Kahneman were no iconoclasts. They did not set out to undermine the established discipline of economics. They were psychologists curious about the way people make decisions. Understandably, that is of vital interest in a military situation. For soldiers, the laws of supply and demand are a long way from their minds when making tactical or strategic decisions. When Tversky and Kahneman turned their studies to civilian life, they discovered and questioned the assumptions of economics because those did not align with their findings, and they were able to find many others asking the same questions.

They did not find a welcoming reception. For a long time, their work was published only in psychological journals. Even by 1990, behavioural economics was seen as a tangential distraction, lacking a home. In part, this is because of the compartmentalisation of disciplines. But it is also about the threat to a discipline when outsiders like Tversky, Kahneman and Schelling generate findings that challenge the foundations of a discipline – foundations on which elaborate theories have been developed and careers have been forged. In the case of economics, public policy has been created on that base. As Thomas Kuhn pointed out, the caretakers of any discipline are likely to resist the challenge,

7. Thaler and Sunstein, 2008

8. Thaler and Sunstein, 2003

not out of greed or political ideology but because there has been so much invested in that discipline.⁹ Ironically, our tendency to invest in what we have already invested in is one of the dysfunctional behavioural biases – the ‘sunk cost’ bias – identified by behavioural economists.

Economics, however, is a living, developing discipline, and behavioural economics is particularly relevant in dealing with climate change, a problem in which many biases Kahneman and Tversky identified conspire against wise public policy. It is about something that is going to happen in the future, it is hard to envisage, dealing with it requires immediate sacrifices, and we have 300 years of sunk investment in fossil fuels – not only the physical infrastructure but also and more entrenched, an energy-intensive way of life. In their later years, Kahneman and Schelling devoted much of their work to climate change.

Kahneman knew that what he and Tversky started had a long way to go in contributing empiricism to economics – an empiricism that is forcing a change in how we think about economics and how economic theories are applied to public policy. He was always delving into areas of economics that lacked empirical confirmation. His last significant work, in association with two colleagues, published just last year, examined the relationship between income and happiness. There was something for the ‘right’ – happiness rises with income – and something for the ‘left’ – happiness flattens out at a moderately high income, about \$75,000.¹⁰

That is typical of his life’s work – constantly testing assumptions and finding that our behaviour defies partisan generalisations. Instead, it is guided by rules that can be described in a rigorous methodological framework.

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9. Kuhn, 1962

10. Killingsworth et al., 2013

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