

We need a combination of psychology and economics to understand people's savings and investment decisions, according to **David Laibson**, who recently delivered the 2007 Lionel Robbins Memorial Lectures at LSE. *CentrePiece* editor **Romesh Vaitilingam** interviewed him about his work in the new field of behavioural economics.



The psychology of savings and investment

Romesh Vaitilingam: David, you're an economist but your lectures on savings and investment are apparently about psychology. What is it that you're thinking about here?

David Laibson: Well, I am an economist but I spend a lot of time thinking about the psychological factors that influence people's choices and I've titled these lectures 'the psychology of savings and investment' because I want to contrast the psychological approach with the traditional classical economic approach.

When I went to graduate school, we were taught that everyone was rational and that they optimised. More recently, the view has developed that while most of our economic behaviour is pretty rational and pretty optimal, we do occasionally depart from that, and such departures can be studied, measured and modelled. This lecture series is about those efforts to enrich our understanding of economic behaviour by adding the psychological components that, in essence, complete the picture.

RV: So really this is a fairly recent innovation, bringing these psychological

understandings into economics.

DL: The 'big bang' for this field came in 1979, when a very important paper by Danny Kahneman and Amos Tversky was published. The paper was about something called prospect theory – or how people think about risky outcomes. Had Amos not died, they both would have been awarded a Nobel Prize; as it turns out, Danny received the Nobel Prize in 2002.

But even though the field started in 1979, it had very few followers until the 1990s. There was a period in the wilderness in the 1980s when there were just a handful of people actively doing behavioural economics. Then in the 1990s, life really got started in terms of more and more people signing on to this endeavour. And now it's an area that has a great deal of interest, enormous graduate student interest and a lot of research taking place. You could almost say that it's become a fad.

RV: So tell me a little more about how this actually developed. For years and years non-economists have said you guys have this very peculiar view of human nature.

What was it that suddenly made it possible to introduce psychology? Was it something to do with the tools and techniques that economics had developed?

DL: I think there were two sets of developments that happened during the last 25 years. The first thing was that we began to find empirical evidence that contradicted the rational actor model. Now just to be clear: no economist today or 50 years ago believes that people are truly perfectly rational.

What economists have always said is that the rational actor model is a very good approximation of how people behave. It gets things mostly right just like a map gets things mostly right. A map of London may miss out the hills and valleys but it basically tells you how London is laid out. So just as a map can be useful even if it's not perfectly right, so the rational actor model was always felt to be good enough.

But in the last few decades, more and more evidence – both experimental evidence from the laboratory and evidence from real markets – like financial markets – has contradicted many of the predictions of the rational actor model.

By understanding the psychological foundations of human decision-making, we can build institutions that help people do what they want to do

The other set of developments is that we have developed theoretical frameworks that enable us to formalise these departures. We have alternative models for mathematically representing human behaviour. These alternatives don't leave the rational actor model aside but add to it and improve it. Now we have the combination of new data and supplemental models that are jointly moving economics forward.

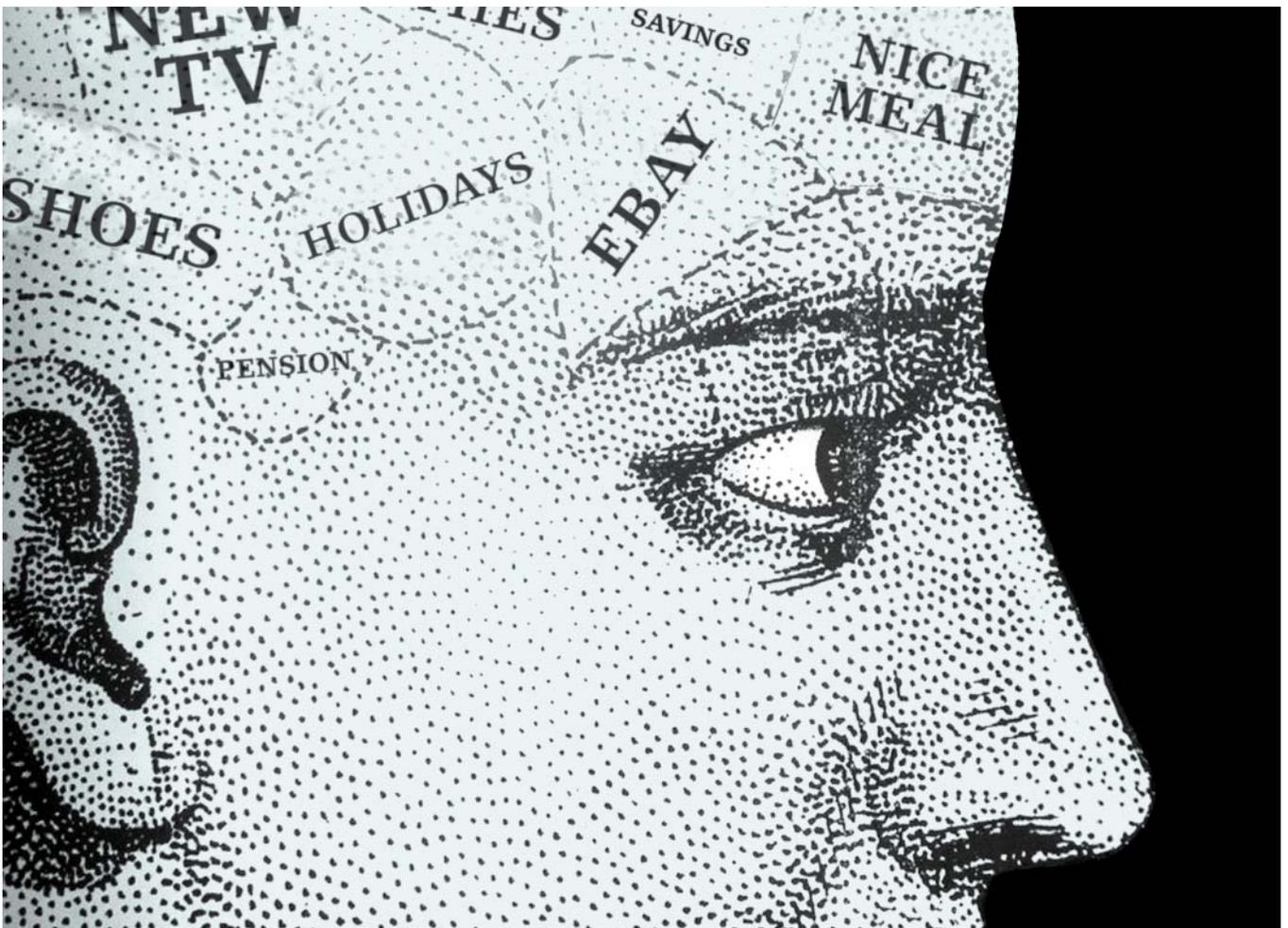
RV: Tell me about your own research programme, and particularly how it relates to one of the great policy challenges, getting people to save enough to pay for their old age. What kind of findings are you coming up with and what lessons can we learn from them?

DL: There are essentially two kinds of thinking in my research. The first aims to understand the foundations of human preferences and human decision-making. And the second is to think about how we can build institutions that help people do

what they want to do.

The underlying psychology is the psychology of instant gratification. It is the psychology of a decision-maker in a household who puts enormous weight on the present and then drastically discounts events that might only be a week away in time. It's the person who says, I know I should exercise and I'll do that next week but right now these chips look very good. Or the person who says, I know I should save and I'm going to start saving very seriously next month but tonight, how about a bottle of champagne?

This psychology can be modelled and measured, and I've spent a lot of my academic career trying to do that. But then the question arises, if people do put enormous weight on the present, it might be awfully hard for them to save. We see that people say that they care a lot about the future. They say, look, I'm not going to save today but I will save tomorrow. I'm not going to exercise now but I will exercise later. So it's not as if we think that our futures are irrelevant, just that we



aren't willing to invest in them right now. We prefer to make those investments next month.

So we need to build institutions that help get us over that hump. And a lot of the work that I'm doing is trying to figure out how to create pension plans or savings systems that help people save for retirement. These are people who might not be able to do it on their own but are thrilled when you make it easier for them by providing, say, a defined contribution pension plan. This would be a system, for example, where you're a new employee at a firm and you're automatically enrolled in the pension scheme, with some fraction of your salary deposited every month directly into a retirement account.

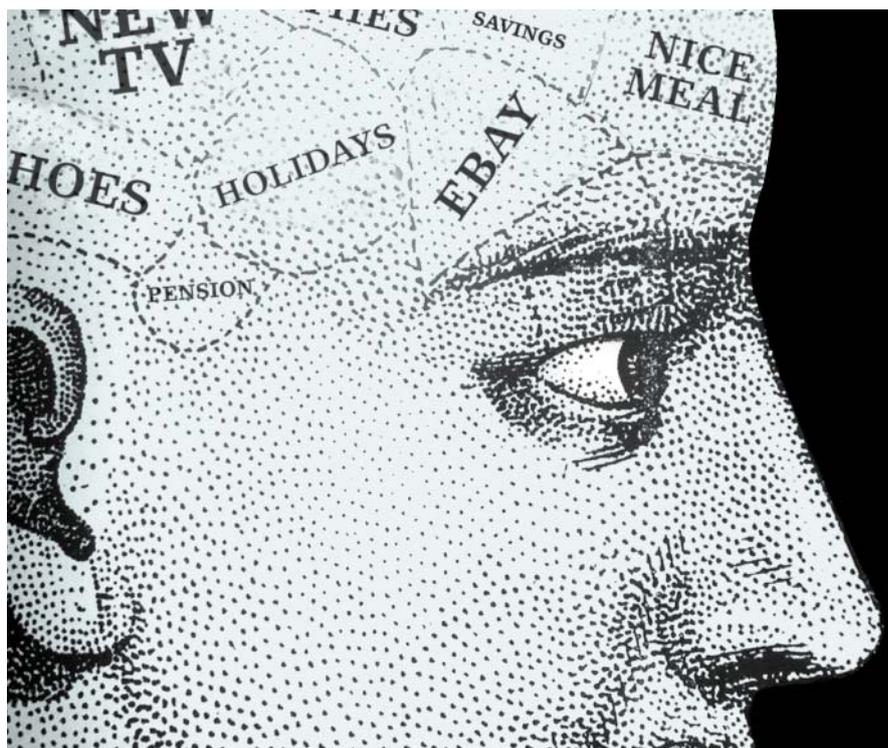
These automatic enrolment plans are highly effective. People like them and they don't opt out of them. They accumulate large bodies of wealth for retirement. Yet, if you were to change the system and set it up so that instead of people being automatically enrolled they are only given the option to enrol, you find that very few people join these plans. It takes years for the typical person to enrol in a plan without automatic enrolment.

So we have a situation where our tendency to procrastinate undermines our willingness to save. One natural way around that is to make savings automatic and when you do that, people are very satisfied with the net result. A lot of what I'll be talking about in these lectures is describing the underlying psychology of resisting savings and the institutions that help people save, which is what they tell us they want to do anyway.

RV: So your work is informing policy that will, in effect, save people from themselves.

DL: That's right. But we don't want to be too paternalistic. I'm an advocate of giving people good defaults and always giving them the option to opt out if they don't want to save. I recognise that government sometimes goes too far and that we don't want to tell people how to live their lives. But I also recognise that left to their own devices completely, people sometimes make bad choices.

So we've defined the middle ground, a hybrid system that nudges people in the right direction, encouraging them to do things that they view as desirable without



compelling them or coercing them in ways that are too paternalistic or heavy-handed. Basically what we want to do is to make savings easy. If you don't want to save, that's fine, you can opt out of the system. But if you want to save, which most people think they should do, then it's made simple for you, not difficult and time-consuming.

RV: Is there also a role for education in this? Few people seem to have a good grasp of basic numbers, but can we teach them to manage their finances more effectively?

DL: Well, it's true that people have very low levels of financial literacy, and some of the work that I've been involved in has been studying these financial vulnerabilities in terms of low levels of education or knowledge about finance. But if we think that education is an important piece of the puzzle, we have to not only document that education is missing but also show that educating people leads them to behave in better ways.

Surprisingly, there's very little evidence that supports that kind of policy. It's not clear that education programmes can

increase people's financial literacy and improve their behaviour in ways that are cost-effective. While it's true that if we gave everyone a PhD in finance, we'd probably see the world saving much more correctly and investing more rationally, that's an awfully expensive intervention.

Then the question becomes, can we strip it down and generate much simpler, cheaper, quicker interventions that get the job done? And the answer so far is, maybe not. It doesn't look like there are easy educational interventions that train people to make optimal or nearly optimal financial decisions.

For example, it's a good idea to have a high school curriculum that emphasises more economic and financial issues. But even if we did, it might well be the case that by the time that 18-year-old reaches 48, the world will have changed. And what she learned in high school may no longer be that relevant for what she will have to do as an adult.

If I had been taught how to save for retirement when I was in high school, I would have been taught, find a company with a good defined benefit pension plan and work there for the rest of your life. And that turns out to be terrible advice. First, all of those plans are being

terminated. And second, in the job market of today, you don't stay at one company your whole life: you move around and if you move around, as you should to advance your career, you're going to lose those pension benefits.

So if we think education is important, we have to first prove that we actually can cost-effectively educate people and help them make better choices. I think that automaticity is a more cost-effective tool in helping people make good choices. Rather than spending a lot of time and energy educating someone, which may or may not get them to make a better choice, I know that if I automatically enrol them in a defined contribution pension plan with a 5, 6 or 7% savings rate and I automatically allocate their assets to a life cycle fund, they're going to do very well. And they're going to basically stick with this good default.

So the question is, do I want to spend thousands of dollars on education for that person or do I want to automatically enrol them in the pension plan with the default savings rate of 7% and the default asset allocation to a life cycle fund with relatively low fees. I know the latter works. It still remains to be shown that the education works.

RV: What about the psychology of investment? How does that fit into your analysis?

DL: Many of the investment choices that the typical investor makes are self-defeating, whether it's return-chasing, avoiding risks because of loss aversion or failing to recognise the importance of fees in reducing returns. Again and again, economists are documenting that people make financial mistakes. We have to identify those mistakes, understand their sources and build institutions that help people avoid them.

So that's where the investment side comes in. It's easy to make bad choices in financial markets: choosing the wrong mutual funds, choosing the wrong asset classes, failing to diversify, failing to hold a world portfolio and instead just holding a domestic portfolio. The typical investor needs help, perhaps through education and perhaps through defaults, to improve their balance sheet.

Another issue is employer stock. In the United States, investors in defined

contribution pension plans often hold an alarmingly high fraction of their wealth in the stock of their employer, which is, of course, putting all their eggs in the same basket. You don't want your job to be on the line and your retirement account to collapse at the same time, which is what happened at Enron and many other firms in the early 2000s.

We've got a lot to do in measuring and then understanding the psychological underpinnings of this kind of investment mistake, which will lead us to build better institutions that help people avoid these mistakes.

RV: So in terms of these institutions you're looking to design, what kind of impact are your research findings and those of your colleagues in this field starting to have on policy-makers? Are these ideas starting to feed into practice?

DL: The work that my collaborators and I are doing and the work of many other economists in this field, have had an effect on what's going on in financial markets and on the regulators both in the United States and around the world.

In 2006, the United States passed the Pension Protection Act (PPA), which basically made defaults the official policy of the US government. The PPA uses defaults to help people save in their retirement accounts. The Department of Labor recently produced a set of regulations that establish what is and what is not an appropriate investment for these default funds. The UK is about to initiate its own major policy programme using defaults. And we're seeing defaults show up in many countries around the world.

So policy-makers are embracing the idea that a) investors sometimes make mistakes and b) institutions that aren't that complex or that controversial can avoid a lot of these problems. And I'm happy to say that I think the pensions world of 2010 is going to look a lot different and a lot more practical and useful to unsophisticated investors than the pensions world of 2000.

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David Laibson's Lionel Robbins lectures were delivered on 19, 20 and 21 November 2007 in the Old Theatre at LSE. Recordings of the lectures and slides from the lectures are available here: <http://cep.lse.ac.uk/interviews/>

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