

Breakfast Keynote Address

Behavioural Economics and Financial Well-Being

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I'm a behavioural economist. We study economics based on human behaviour. How much should I save for retirement? The Life Cycle Hypothesis Theory of Consumption can help you answer that question and predict how long you will live, your income stream, how many kids you will have, will you support them, when will you die, the discount rate, and so on.

But making predictions is hard to do. According to the book *Nudge* there are two kinds of entities: Economists who predict the future and can do complex calculations well, and human beings, like you and me who often do things "just because". Emotions are a nuisance. Economics is a science -- it's unemotional and rational. But we need a science that takes into account that an economy is made up of human beings, who are not.

Economists are getting smarter. They compute at the speed of light. They're super smart. But people are inconsistent. There's a theory called the compromise effect. Go to any coffee shop and you'll see three sizes of cups: small, medium and large. Seventy per cent of coffee buyers buy medium. When I was a marketing professor at Stanford I studied the phenomenon. I asked people as they left a coffee shop near campus why they picked the size they did. They said it was just the right amount. We got the shop to add two ounces to every size and people still picked medium. The environment around you gives you information about yourself and we put that information into context. I'm not an extreme person – I'll pick the one in the middle.

I've been buying gas at the same station for years. One day I saw octane 94 fuel. Most cars need fuel with 90 or 91 octane. Why are they selling octane 94 fuel when cars don't need that? Airplane engines need 94 octane. People who used to purchase octane 89 fuel moved up to octane 91 after octane 94 was introduced. Now all of a sudden octane 91 is one of the options. There's power in phenomenon like this: Straddle anything you want to sell with two options, one cheaper and worse and one more expensive and therefore better to some people.

People don't know what their preference is. They infer it. Johnson and Goldstein (2003) looked at organ donation by country. They found that rates in Denmark, the Netherlands, the United Kingdom and Germany were very low. Sweden, Austria and Hungary were at the top. In countries where the rates are low they found that the organ donation process was convoluted. An agent had to find the motor vehicle registration form which you had to complete then mail to the registry who would return a form to you. It's a complicated drawn out process. In Hungary which has a 99.97 percent rating it is assumed that you will donate. There is a reverse process to opt out.

When you set a different default you create a different norm. People use information from the environment to construct their own preferences. Change things slightly and you can get big jumps in

preferences. Changing the default status-quo bias can affect how people opt in or opt out. When I moved to Canada from Hong Kong I noticed I received more junk mail. On the Canadian credit card application there was an opt-out section for sharing my address while in Hong Kong. I had to opt in to receive junk mail by signing my consent.

There's a difference about how people think about money and how they spend it depending on whether they earn it through their own hard labour or receive it as a gift. When people do mental accounting they categorize and spend money in 'narrow frames'. For example they spend income tax refunds on things they would never spend their salary on, such as vacations, new cars, massages.

Here's another example. If you lost a ticket to a symphony concert that cost \$100 would you buy another? Research has shown that only 17 per cent will buy a second one. But if on the way to the concert you lose \$100, would you buy a ticket? Ninety-nine per cent will buy a ticket. The difference in this scenario is the loss occurring before you bought the ticket or after you bought it.

People behave like an accountant. They set up a mental account. Cash comes from the general expenses account. How people label money has profound effects on how they spend it. When they put money in their kids' education saving account they won't spend it on a buying a car. That's because of loss aversion: Losses hurt you more than gains make you happy.

In 1996 I was living in Hong Kong. A carpet salesman came to my house at 8 a.m. one Saturday. He asked me if I would like to see some carpets and I said, "Sure. Show me two." I needed to save all the money I could. One was a hand woven Indonesian silk rug. It was very nice but I don't want it.

"Here's what I can do for you, I'll leave the rug with you for two weeks and if you don't want it at the end I'll take it back no questions asked." So I went to my computer and drew up an agreement which he signed. Two weeks later the salesman came back. I didn't want to keep the rug. The salesman gave me no push back. He rolled up the rug and left. But I missed the rug. My wife had bought some pillows and other accessories that went with it. It looked very nice in our home. I almost called him back. Two weeks ago the rug was a gain. Now it was a loss which makes it more likely that I will want to buy it. Cable companies do a great job of this.

Then there's the Yes – Damn Effect. Six months ago I said I would speak at this conference. Yesterday after having taught for six hours and attending four meetings I said, "Damn, why did I ever say yes?" The future is always better than the present. That's why most exercise machines are not used after two months.

Regularity of exercise is not as important to how much people exercise as how they pay for their gym membership. The first two weeks in January everyone is there. In February and March the numbers are down. In July even fewer people are there. But in November there's a spike when people who pay

annually get their renewal notice. People who pay monthly are more regular in exercise behaviour. Pricing can affect behaviour.

Here's another example. Only 12 per cent of members in a health plan went for an annual check-up which was covered by the plan. The administrators wanted to get more people to go. They divided the membership into two groups. One group received information about how much the annual plan cost and out of that how much the annual check-up cost. People who received this information were six times more likely to go. When members in the group who received the information were randomly called to make an appointment, the number of people who went for a check-up increased by five times. Others didn't get the information or the follow-up. There wasn't the urgency to make the appointment today. There was no pre-commitment.

Have you ever sent an email that you later regretted after you hit the enter button? Google Labs lets you impose a self-control device. It will make you calculate math problems for a minute or so before the email is sent. A nudge is any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives.

What does this mean for a budget or education savings discussion? How do you change behaviour? First you have to recognize that there is a problem. People have the option of opening a savings account. Education plays a very important role in this step. Second, you have to initiate action. The third step is maintenance and nurturing. Once again education is very important. For some people who have no bank account, opening an account is a nuisance, too much work. It makes them feel uncomfortable. At a workshop only 11 per cent of those attending opened an account. However, when people at the same workshop were given a form that included a simple nudge of "Yes, I do intend to open an account," 63 per cent did just that.

In the Save More Tomorrow employee savings program, employees are automatically enrolled and need to opt out. Savings are linked to salary increases. A predetermined percentage of salary increases is swept into a separate account. As a result everyone joins the program. This is a beautiful mental accounting story. Loss occurs when I give up something that I'm used to. But in the Save More Tomorrow program I never see it. As a result, people are less willing to withdraw money.

When a task is due this week you're more likely to work on it now. We plan time week by week, month by month. In India the government will match 20 per cent of your savings if you open an educational savings account and have 5,000 rupees in it within six months. If you open the account in June 2010, the deadline is December. If you wait until July, the deadline is January 2011. There's a big difference in the sign-up rate. Most want to sign-up now for this year. Only eight per cent opted to sign up in July for next year. Education helps to convince people about the need to save. Most people comprehended the content of the seminar yet their behaviour was unchanged.

Take the Theory of Decision Points. You buy a jumbo bucket of popcorn that contains 12 cups of popcorn. Most people finish it during a movie. If you were to divvy up the same amount in six bags, would you eat as much? You make a decision to consume. I'm going to eat popcorn. The bucket is sitting right in front of you and you finish it. With six bags you have to keep making the decision should I open the next one. The more active decision points there are the more opportunity you have for changing your mind.

In India the act of dividing cash into envelopes makes people save. Giving money a name changes behaviour. Ten percent of people would put money in an envelope marked savings. Other envelopes had photos of their kids on it. Suddenly savings rates doubled.

Then they used plastic envelopes that you couldn't tear open. Some were perforated on the left. Others on the right with the photos of their kids. No one wanted to tear into a photo of their kids. What they did was to inject a dose of emotion into the choice architecture to supplement the literacy programs.

This is a new science. The rules of thumb are still very general. One thing is clear: you have to help people to act. We have many examples of local success. What needs to be done is to scale them up.

Q/A:

How would you relate student debt to credit cards?

Behaviour economics changes the nature of demand and supply. When you pay by cash it is a salient memorable transaction. However, when you ask people how much they will spend on their credit card this month 99 per cent will underestimate. This will become more of a problem with debit. Most people pay their electricity bill by direct withdrawal and didn't see price increases. What we need is a credit card app that will send you the aggregate every time you use your card.

I come from the education and policy world. Government is playing smart by trying to manipulate behaviour. How do we get kids to do what they should be doing?

We live in a world where we are being manipulated and influenced by context. Retailers are constantly manipulating us to buy stuff. We have the right to opt out. We need to nudge ourselves into what we should be doing so it becomes self-motivation. Let them do what they want to do. Do you want to save? If so, here's a program.

What about longer term behavioural changes?

Populations need to convince themselves that they can save. They have no belief that they can. When nudge dimensions are withdrawn after six months they continue to save.