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Cut on the bias

HOW BEHAVIOURAL ECONOMICS IS TRANSFORMING STRATEGY

In the past 30 years huge advances have been made in understanding how our supposedly rational economic choices are “nudged” by other influences. An expanding portfolio of insights has been extracted from the evidence, and the build-up of this knowledge has become game-changing for both businesses and government. This bulletin offers a starter guide to the tools of “behavioural economics” that Frontier has been using with companies and policy-makers.

Market economics starts from a wonderful presumption: that people behave rationally in pursuit of their own best interests, and so free markets allocate resources efficiently. The powerful image of the “invisible hand” has helped to drive economic development and freedom of choice, and check the tendency of



governments to put their fingers in every pie. The regulators' job, in the world of free markets, was not to direct economic activity but to deal with market "imperfections" that impeded rational choice, such as a lack of producer competition or consumer information.

Extending consumer choice is still a powerful policy theme in Whitehall. But it has recently been matched by a different theme, driven by our growing understanding of the ways in which rationality isn't so much blocked as "bounded".

By adding psychology to the framework of economics, we can identify the circumstances in which intuition takes over from rationality, and factors such as peer pressure, recent experience or familiarity steer us in different directions. And by using the evidence-based analytical skills developed by economists, the "behavioural" end of the science has yielded conclusions robust enough to bring it into the mainstream of business strategy and government policy.

THE BUSINESS END

These new skills are increasingly being used to design innovative marketing strategies. But to use them effectively, it is important to understand the way in which "behavioural economics" raids two complementary toolkits.

The well-trod path

Behavioural economics isn't based on generalised theories of human motivation, derived from arguments about why we behave as we do: it's about understanding and predicting behaviour on the basis of observing how we behave in particular circumstances.

Here's a metaphor for the difference. Imagine you're walking in the countryside and have to cross a field. Do you take the straightest route, follow a winding sheep track or skirt along the hedgerows? We can all develop theories about why people might decide to plough straight ahead or weave their way, but the only useful piece of information for the farmer is what walkers actually do.

So does behavioural economics add up to anything more than standing in a supermarket and noting the footfall pattern? Yes, because through repeated experiments it has identified a number of specific ways in which context will change the way we take decisions. It has categorised recognisable biases and other sub-conscious influences, and so can help you to spot them, plan for them, counteract them - or, for that matter, deliberately introduce them to "nudge" customers or citizens in the directions you want them to go. For retailers (or farmers!), that might make all the difference between profit and loss.

- **Economics:** a powerful set of tools for putting together a structured understanding of how markets evolve, how customer and business decisions interact, how to gain competitive advantage and how to regulate firms and markets.
- **Psychology:** a different set of tools for arriving at an understanding of individual and group behaviour, of emotions and motivations, and of different cognitive processes, both conscious and unconscious.

From both together comes an understanding of how to design robust experiments that will yield much greater value than traditional “market research”. Or, indeed, enable companies to detect the potential flaws in much that is conducted under that heading.

A useful way of deploying the insights from behavioural economics is to look at the ways in which it might help to answer two complementary, but distinct questions:

1. What do customers really want?

Psychology adds richness to the basic economic analysis of supply and demand. Traditionally, economists sought to add to this analysis by, for example, adjusting measures of quantity to reflect quality, or examining the way in which demand for one product might be affected by the supply of another. This was, however, still all highly-rationalised, depersonalised stuff – of the kind that, for example, underpins market analysis by competition authorities. Psychology, by contrast, helps us to explore the interaction of needs, desires and influences that drive the purchase of some types of good for some types of people, and as other elements of “context” change.

2. How do customers take decisions?

Psychologists believe that up to 95% of the processes we go through in taking a decision are sub-conscious. Intuition leads us down short cuts we haven’t deliberately decided to take. Biases of which we may be quite unaware have a powerful influence. Experiments have, for example, demonstrated the power of suggestion to affect decisions taken even by experts with all the skills required to reach the “right” (logical) conclusions.

In Frontier’s experience:

- businesses spend too little time on the second question, while
- regulators focus too little on the first.

Either way, a lack of balanced attention to these two elements risks taking strategy in the wrong direction. And to avoid that risk, both businesses and regulators need to be able to answer a third question:

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3. How good is my market research at answering questions 1 and 2?

The addition of psychology helps us to avoid the risk of being convinced by misleading data. It helps us to understand the influences that asking questions has on the way people answer them, and so how to value the answers.

For example, suppose you ask customers why they buy from an online website we'll call Mississippi. The evidence seems to be overwhelming. Eighty per cent mention price. And yet Mississippi isn't, in comparison with its competitors, particularly cheap.

So what's the explanation? Table 1 explores the unspoken reasons why customers may give this answer, listed in the left-hand column. The right-hand column gives the short-hand name for the relevant category of behaviour identified by the well-established insights of behavioural economics.

Table 1: I really buy from Mississippi because of its prices...

Unspoken reasons for saying this:	Category of behavioural influence:
It's one of Mississippi's best known features	Focal point
It's what people expect me to say	Response bias
It's an easy feature of Mississippi to describe	Convenience wins
You only asked me about Mississippi and price	Priming/framing
We're talking figures here, right?	Number bias

What this table suggests – or stimulates us to explore – is that people may mention price not as a result of detailed statistical comparisons with other websites but because in one way or another “price” is an easy or personally satisfying post-rationalised answer to give. So why are people really buying from Mississippi? You could argue that they find it difficult to compare prices, and so once Mississippi is thought to be cheap, that's enough – it really is why they're buying, and there's an information failure regulators might want to correct. But let's assume that comparison isn't, actually, all that difficult. Then perhaps there are some other (unvoiced) reasons why they may be buying from Mississippi.

Table 2: I really buy from Mississippi because...

Unspoken reasons for saying this:	Category of behavioural influence:
It was a nightmare last week buying somewhere else	Recent experience
I know it will be OK A new company might lose my credit card details My sister works at Mississippi and I can call her if it goes wrong	Loss aversion
I feel in control of the purchase decision	Reward (power)
I don't want to have to waste time learning about another site	Reward (efficiency)
Everybody uses Mississippi	Social proof
It's familiar and really straightforward	Ease

If so, a strategy based on the apparent strength of the data drawn from the customer survey might take Mississippi in quite the wrong direction. Or, of course, this data might mislead Mississippi's competitors to waste a lot of money trying to undercut its prices.

Table 2 lists some possible “real” reasons for buying, and again links these to some well-established sources of bias. Being aware of these, you can look to see whether they might affect Mississippi customers' purchasing decisions, or the ways they answer survey questions. And – very importantly – such awareness may save you yourself from suffering from number and availability bias.

Sophisticated businesses may, in theory at least, be aware of the danger of basing strategic decisions on intuition. But a surprising number fall into the trap of resting decisions on a particular set of data just because it's easily available (particularly if this readily available data tends to confirm their intuitive views).

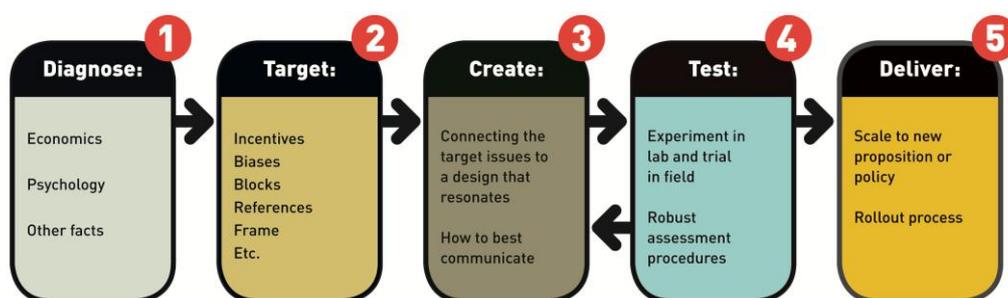
This has led Frontier to develop a practical approach to such problems, which is designed to help companies and regulators move from an understanding of what is happening in the market to the design and testing of effective interventions.

FRAMING THE QUESTION

The diagram below illustrates the approach Frontier has taken to using behavioural economics in business. It shows a sequence of five steps to delivery. Much of this bulletin has been concerned with the first step – the diagnostic techniques that the application of psychology to economics empowers. But

we've also sketched out the second step – the identification of influences on our behaviour that have been well-established by this branch of science, which businesses or regulators may want to target in framing their strategies.

The third step is designing a set of policies that match these targets – and the fourth is the all-important test phase, together with the assessment of results. Critical to the use of these techniques is the understanding that you don't scale up, or embark on a substantial roll-out, without a highly disciplined experimentation phase.



One example of how these techniques can be applied relates to the retail banking market. The approach many of us take to the choice of bank is another example of heuristics – or rules-of-thumb – at work. Even more so than in the Mississippi story, a survey of customers is likely to suggest that choice is often made purely on the basis of price – after all, there is little difference between Bank A's current account and Bank B's.

But of course we know that most people don't spend their lives checking the "prices" offered by banks for products such as current accounts. So again, the decision may actually be a bundle of different emotions and processes, illustrated in Table 3.

Table 3: I choose my current account on price...

...but in reality...	...which behavioural economics identifies as...
This is a functional product I don't want to spend time thinking about	Focus of attention
I've no positive feelings about banks, only negative ones	Associations
Changing bank doesn't give me a buzz	Reward
There's a lot in the media about free banking, so they're probably all the same	Framing
I don't like to admit to feeling confused, I may get this wrong, and anyway I'll have to deal with a call centre or go into a branch and queue for a new current account	Loss aversion
I'm busy, it's less trouble to ignore it and do nothing	Ease

The feelings are familiar to all of us. But the identification of the specific, associated behavioural influence involved helps banks and regulators carry out a disciplined analysis. If regulators wanted to look at how to further increase switching in sectors where there may be less of a “buzz”, then these sorts of behavioural influences could help them to understand why. So the approach we described above can help banks to work out who is likely to switch and what is most likely to influence them. And it can also help governments to think more imaginatively about regulation of sectors such as retail banking.

Government policy-making by all the main political parties in the UK has been increasingly dominated by a desire to empower citizens by increasing choice. Some 30 years have passed since ministers started privatising and breaking up monopolies in the utility sector, but this policy is still being driven further into core public services, such as health and education, with new regulators being set up to encourage competition. And in the energy and telecoms markets, much effort has been devoted over the past twenty years to increasing customer choice. Recently, however, regulators have begun to understand the limitations of this approach – that customers can sometimes find certain types of choice confusing rather than empowering.

The traditional response has been to conclude that the fault lies with the consumer: consumers are “uninformed”, or “insufficiently educated” to make choices in, for example, financial services.

Behavioural economics has helped to land the problem back where it belongs, with the regulator (who may actually be the one lacking information!).

There has been more thinking about:

- what influences the choices that users of public services make;
- how to make choice more effective; and
- how to use this greater understanding to reinforce or – where possible – replace regulation.

A key understanding from behavioural economics is that much “rational” analysis depends on the assumption that people are prepared to put as much cognitive effort as is needed into every decision they take. Accepting that they don’t isn’t patronising – it’s a recognition that people simply don’t – and don’t want to – live that way. Instead they allocate their cognitive resources according to their wider needs, desires and (influenced) interests.

But in trying to encourage choice, it’s important that regulators use the tools of behavioural economics to answer both the questions we identified earlier – that’s to say, they think both about *how* decisions are taken, and about *what* customers really want. And all the evidence suggests that, in the case of retail banking, what they want is not just the possibility of a higher interest rate, but a hassle-free life, in which free banking isn’t something they have to keep worrying about!

So deluging them with even more information, even from trusted sources, isn’t necessarily going to increase customer satisfaction. Nor is it forcing customers to switch when they are happy with their existing bank. Regulators are at last beginning to understand that there may be ways in which a framework that limits choice, simplifying comparisons between banks and ensuring that offers don’t change too frequently, might paradoxically increase both competition and customer satisfaction.

NOW FOR THE NUDGES

Of course, Governments aren’t always or only interested in what their citizens want. In many fields, policy-makers use behavioural understandings to “nudge” citizens in what they consider to be desirable directions – taking exercise, eating healthy food, stopping smoking.

Simple behavioural insights have been used long before they were given a name. Hiding cigarettes from view in supermarkets and convenience stores is a classic attempt to counteract “availability bias”. It follows efforts to counteract “positive associations” by restricting advertising and altering the look of cigarette packets.

The difference now is that such policies can (or should be) analysed and tested for effect before launch. The techniques of behavioural economics can be brought together to develop more sophisticated regulatory responses. Take, for example, the use of subsidies to encourage energy efficiency.

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Think of a number

Psychologists and behavioural economists, such as the Nobel prize-winner Daniel Kahneman, have conducted a range of experiments that demonstrate the frequency with which intuition leads us to odd conclusions about numbers. We tend to:

- confuse plausibility and probability;
- place too much weight on the most recent data; and
- be highly susceptible to suggestion.

The interesting thing about these results is that they don't just come from experiments with those of us who failed GCSE maths – graduates highly-trained in statistical techniques demonstrate at least some elements of the same unconscious biases. Here's a couple of examples Frontier has used with clients to illustrate the point.

Two groups of bankers were asked: how many countries are there in Africa? Group A was told that the average estimate given by a group of nine-year-olds was 20, Group B that the average of their guesses was 80. The guesses made in Group B were higher than the guesses in Group A: 26 and 65 respectively. The average estimates they'd been given (even by nine-year-olds) had "anchored" their answers.

Two further Groups C and D were then asked not one, but two questions each. Group C was asked whether the number of countries in Africa was more or less than 20, Group D whether it was more or less than 80. Those in both groups were then asked to give their own estimates. And again, the answers in Group D tended to be higher than those in Group C – even though the numbers they were given in their first questions had no evidential value – they were just numbers. Experiments have shown that numerical "anchors" exert a pull even if they are patently absurd (e.g., if the first question asked is whether the number of countries in Africa is more or less than 200!).

Another well-known experiment, used by Frontier with a group of retailers, involves asking them to see themselves as "customers" and choose between two chocolates. One is a luscious Belgian truffle priced at (say) 25p; the other a plain square priced at (say) 8p. The customers make their choices, and let's say 60% chose the truffle and 40% the plain square. Then we cut the price of both chocolates by 8p. So the truffle cost 17p, and the plain square was free. The experiments consistently showed that the percentage of the group choosing the plain square went up sharply.

Why? The price difference between the two options remained the same, and (by definition) the former truffle-buyers who switched had shown themselves ready to pay a premium. But getting something for free generates a whole set of emotions and good feelings that overwhelm the price-quality comparison and take over the decision-making. And conducting such experiments helps the suppliers of goods and services (such as mobile devices and mobile contracts) to bundle and price them to attract customers – and are, of course on regulators' radar screens as a result.

The UK Government became increasingly frustrated that it could not increase the take-up of its loft insulation scheme, despite lowering the price all the way to zero. It is easy then to assume that households are behaving irrationally; after all, who wouldn't want to reduce their energy consumption and save the planet by getting free loft insulation? We can easily invent theories of biases and non-linear discounting models to explain low demand at low prices. However, until Government began to dig deeper into the reasons for consumer resistance, its focus remained on the wrong thing: the price of loft insulation. Instead, realising that loft insulation requires us to go into the loft to clear it out was a breakthrough. Inhibiting demand wasn't the price, but the tedious task of clearing it out. The answer? A package branded as a loft-clearing service, which also throws in loft insulation rapidly increased demand.

Another example is of the need for regulators to “think behaviourally” is given by a perennial worry of the competition authorities – the sale of extended warranties for electrical goods. The problem is (reasonably) well-understood. Customers do value extended warranties (EWs), but tend only to be interested in them at the point-of-sale, when they don't know about the alternatives – very few research these in advance.

The remedies proposed by the competition authorities include requiring retailers to:

- display the EW price alongside the product;
- allow longer-cooling-off periods;
- set up and publicise a comparison website;
- provide better in-store information; and
- conduct regular independent mystery shopping exercises to ensure sales staff don't “hard sell”.

The last three of these were put out to consultation by the OFT earlier this year.

The problem is that some of these remedies ignore a number of behavioural aspects of the EW purchase. For example, it's obvious that buying an EW doesn't give you the same buzz as the appliance purchase.

You're not going to want to think about it again. So longer cooling-off periods are unlikely to help much. Equally, more information may not do the trick for many people. The reason they buy EWs is precisely not to have to worry, or spend time hunting for someone to repair the thing. Adding complexity to the purchase may simply increase the urge to buy an EW and be done with it.

So behavioural economics might suggest that a cleverly-orchestrated “nudge” campaign that alerts customers to the issues would do more good. But it would

take careful experimentation to see if an effective campaign could be designed. All this can easily sound a bit “big brotherly”. (Indeed, one famous experiment demonstrated that the amounts of money put in office honesty boxes went up markedly when backed up by Lord Kitchener-like posters eyeing those helping themselves to refreshments!) But arguments can be made the other way too.

Comply or explain

The UK’s Corporate Governance Code predates “Nudge” – the work by Professor Thaler that has caught the eye of Whitehall. But it’s a classic example of the technique. Directors’ duties are laid down in “hard law” (the 2006 Companies Act) but much else is laid down in “soft law” (the Code). If quoted companies don’t want to comply with the Code, they simply have to explain to their shareholders why not. In other words, the Code uses priming, social proof and transparency instead of proscription.

The Code covers such things as how boards should be selected, how long directors should serve, how frequently they should put themselves up for re-election and evaluate what they do, the membership of audit and remuneration committees and the roles of Chairman and Chief Executive.

In some other jurisdictions, policy-makers argue that only hard law on governance will do, and in highly legalistic systems such as the US it may be true that boards (or their lawyers) would simply ignore “nudges”. But in the UK, relatively few big companies decide not to comply with (bits of) the Code. For example, when annual election was introduced into the Code in 2010, many industrialists grumbled. But within a year, over 80 per cent of the FTSE 350 had already moved to put all directors up for election annually.

Soft law imposes a healthy discipline on the regulator, too: if the Financial Reporting Council, which is responsible for the Code, pushes the boat out beyond what shareholders want, then non-compliance will rise and the FRC will look silly. But plainly a “comply or explain” regime depends on shareholders playing their part and responding (either positively or negatively) to the explanations. And some policy-makers in Europe see shareholder behaviour as part of the problem of poor governance, not part of its solution.

There are other kinds of social pressure working through the Code, too. For example, the Code lays emphasis on the importance of gender diversity around the board table. And companies know that if they don’t respond by upping the female percentage (at present about 15% in the biggest companies) the UK and/or Brussels will resort to quotas, of the kind already introduced in Norway and France.

If people can be influenced into “better” behaviour, heavy-handed laws can be avoided. And behaviour codes can be kept flexible, allowing for exceptions that don’t need to be minutely documented and fossilised in lengthy legislation (see box on previous page). And undesirable or unforeseeable consequences of regulation avoided.

However, there are two conditions necessary for nudging to work:

- **Effective influence.** Social proof or pressure, or an ability to generate positive associations, must be powerful enough to counterbalance instinct, desire or inertia.
- **Exception tolerance.** Influencing regulation isn’t suitable where 100% compliance is required – or non-compliance must always be penalised.

Trying to “nudge” people away from smoking, in full knowledge that there will still be a few puffing away outside office back doors, seems sensible, but no one supposes that such techniques could replace the law on murder.

CONCLUSION

A better understanding of what customers want should prevent regulators designing interventions that push supplier offerings in the wrong direction. And in business, too, a move away from unrealistic total reliance on cognitive effort by the customer, to a better understanding of the mix of feelings involved in making a purchase, should lead to more cost-effective ways of generating customer satisfaction.

The key points to take away from this bulletin follow the approach outlined earlier – that behavioural economics will help you to:

- dig deeper into what really motivates customers;
- review the psychological validity of your market research;
- identify economic and psychological targets;
- be creative in designing new interventions; and
- trial, experiment and learn.

Books referred to in this bulletin:

Thinking, Fast and Slow – Daniel Kahneman, Penguin Group (2011)

Nudge: Improving Decisions about Health, Wealth and Happiness – Richard H. Thaler & Cass R. Sunstein, Yale University Press (2008)

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