Making a breakthrough

As science uncovers hidden, deeper truths about consumer behaviour, its discoveries raise a question: are the tools that companies use to dig for insight still fit for purpose? **Tim Phillips** reports

Why do people do the things they do? It's a question that's occupied thinkers for millennia – from Ancient Greek philosophers to modern-day marketers. Despite the huge amounts of mental energy and financial wealth that's been applied to solving this particular conundrum, we have – until fairly recently – struggled to see the full picture of human behaviour.

That's because, for a long time, we were going about finding answers in the wrong way, say psychologists Douglas Kenrick and Vlad Griskevicius. All the thousands of focus groups and millions of surveys conducted each year were only delivering an approximation of the truth.


Mark Earls

Writing in their new book, *The Rational Animal* (see interview, p35), they say: "Asking people about their needs and wants is common practice, with many businesses running focus groups, conducting interviews, and gathering surveys to better understand their clients' desires.

"But there is a key presumption behind asking people to explain the reasons for their behaviour: that people know why they do things. This presumption might seem utterly reasonable, except that a mountain of carefully controlled scientific studies show that people are often completely clueless when it comes to explaining the reasons for their behaviour."

This is by no means a new insight. Sigmund Freud could have told us that our explanations of our own behaviour are rarely the whole picture – even if we might doubt that his interpretations are any better. But it adds up to a simple truth, now widely accepted: market research has confronted the limits of our models of rational decision-making in human behaviour.

At the limits

We now know that the models that we use to predict future behaviour based on the past (or, at least, the way we interpret the past) are flawed. This is partly the fault of the model. Neo-classical economics created the idea of "rational choice" applied to every decision we make as individuals – that we routinely act so as to have more of a good thing, and less of a bad thing, using our deliberative ability to optimise our lives. In the economics jargon, we maximise our utility: we act as individuals; we ignore irrelevant stimuli; and we calculate – rationally – at every stage of the process, based on what we know.

This model is extremely useful in limited settings. An example may be the model of crime created by Gary Becker, an economist who won the 1992 Nobel Prize for his work on rational choice. Becker's model specifically does not ask why we commit crime, or even to interpret it as "good" or "bad", except for the economic wellbeing of the individual committing the crime. Like much of his work, it models a sort of personal cost-benefit analysis: if the value of the profit from crime exceeds the expected cost – in risk of being caught and the punishment that results, and the foregone earnings of using that time to work – we will commit crime. The model suggests that raising the minimum wage might cut crime, by increasing the opportunity cost – for which there is now empirical evidence.

> "Sigmund Freud could have told us that our explanations of our own behaviour are rarely the whole picture"

Market research models based on rational choice can give insight in specific situations too; and they fit well with the constraints of a client relationship. They are often efficient in that they require limited data sets and well-known techniques. They also offer the promise of an easily communicated functional relationship between what is measured and the action the client wishes to take.

THE X FACTOR

Human choices are affected by internal and external factors – but it's not always easy to work out which is having an effect


George Loewenstein

Speaking in November at the London School of Economics, George Loewenstein, a professor of economics and psychology in the Social and Decision Sciences Department at Carnegie Mellon University, and director of the Centre for Behavioural Decision Research, explained some of the problems of using rational models of incentivisation to influence our decision-making on food consumption.

The goal is to reduce what we have become accustomed to calling the "obesity epidemic". Clearly, this is a failure of rationality: according to Loewenstein, in the US 63% of citizens aged 15 or over are overweight, and 26% are obese. Obesity accounts for half of all premature deaths in the US. The UK is not far behind.

Loewenstein characterises our seemingly perverse choices as "internalities". Compared with economic "externalities" – where our choices impose costs on others – internalities impose costs on ourselves.

Informed choices

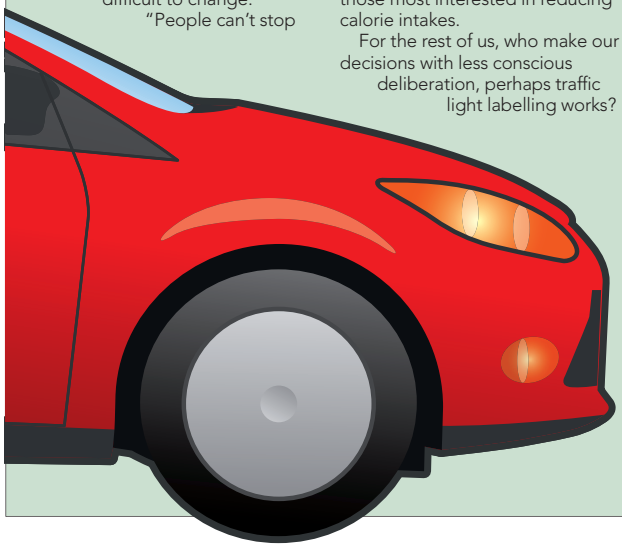
The standard 'nudge' approach, favoured in the US and the UK, is to incentivise us to reduce these internalities using information and default choices. Diet is one of the most obvious areas in which this might be applied, but also, says Loewenstein, one of the most difficult to change.

"People can't stop eating, and the process of overeating is difficult to observe, so it is difficult to incentivise," he says. Also, the body tends to work against interventions by its natural homeostatic processes. Finally, societal norms change over time and in different circumstances.

Therefore, while consumers might rationally assume that being given nutritional information through labelling would affect their choices, experimental evidence is inconclusive. In the US, the 1990 Nutrition Labelling and Education Act (NLEA) was the first major piece of legislation that required nutrition labelling on most food packages: "Almost all the research on the NLEA shows it has very little effect on people's diets," Loewenstein warns, adding that a controversial 2008 law, extending calorie labelling to restaurant menus in the US, has been similarly ineffective. "If the industry knew how little effect it would have, they wouldn't have bothered to fight it," he says.

This type of policy is based on our rational view that we would make better choices given better information. This is true in some cases: a 2007 paper found Subway customers consumed 50 fewer calories per meal when they noticed calorie labelling. But Subway attracts a health-conscious customer in general, and we can speculate that those who read a calorie count would be those most interested in reducing calorie intakes.

For the rest of us, who make our decisions with less conscious deliberation, perhaps traffic light labelling works?



Loewenstein also throws some doubt on this. A 2011 study of McDonald's customers, done by Loewenstein, Eric Van Epps, Julie Downs and Jessica Wisdom, found that diners given calorie counts for meals ordered the same number of calories. Meanwhile, diners given traffic light labels ordered, on average, 100 calories more. "Green light items have fewer calories, but people take green as a 'go' signal. Then if I'm ordering a yellow-light item, I'm going to get the most calorific yellow light item. The same goes for red lights: if I'm going to order it, I'm going to go all the way," Loewenstein explains.

Unexpected

If we often get the opposite results than we expect, what can be done to incentivise lower consumption of calories? Loewenstein admits that he has had something of a conversion: "My new perspective is different... A lot of the problems that behavioural economics are applied to have conventional economic causes and, if we attribute the problem to human frailty and impatience, we fail to address the true consequences," he says. The problem with obesity, is simply that high-sugar foods have become cheaper in real terms since the 1970s, while the price of vegetables has remained the same or risen: "Obesity is largely due to externalities. We didn't suddenly become subject to internalities in the 1970s."

Therefore, says Loewenstein, the most effective interventions might be familiar to every classical economist since Adam Smith: if we want to change the calories we consume, we could do it effectively by simply lowering the price of healthy food.

These models were not created to reflect a sophisticated version of individual behaviour, but were intended to explain certain equilibria. Research in psychology and behavioural economics, as well as evidence that is far easier to collect today, shows that many of the simplifications are more important than were previously understood, especially when we consider what to do next: whether in public policy or commercial innovation.

The real consumer

Here's an example you'll probably be aware of: our preferences are not, as rational choice assumes, stable. They are affected by context, by whether we stand to gain or lose by our actions, and what others around us are doing. Rational choice theory assumes that we make our choices by evaluating all the alternatives, and choosing the one we prefer. But there is plenty of evidence that too much choice inhibits our decision-making just as much as too little.

Rational choice theory assumes that we have the information we need to evaluate those alternatives but – even if we have the relevant information (a big if) – we have constraints on our ability to compare it: we're short of time, we struggle to comprehend alternatives that are very large, very small or just very different – and we discount the future hyberbolically.

The type of thinking named System 1 by Daniel Kahneman in *Thinking, Fast and Slow*, is now familiar: instinctive and immediate, with unconscious bias, using contextual sensory cues and leftover instincts bequeathed by evolution. We know System 1 exists – but we still build much of research around the rationality of Kahneman's System 2 thinking.

When it goes unacknowledged, the irrationality of consumer decision-making isn't just a problem for researchers. A report by *Which?* on Capabilities and the Ideal Consumer (see *A real stitch-up*, p32) finds that three-quarters of UK mobile phone users are on an unsuitable tariff – leading to an aggregate annual overpayment of £6bn. *Which?* has also calculated that, by not switching savings accounts, UK consumers are losing out on approximately £12bn per year.

Consumers have to make many more decisions, and make decisions in areas that previously they had to know little about. The best example is pension provision, which has been extensively researched in the behavioural economics literature. It combines many of the problems that rational models wish away: we find it hard to imagine a situation where we are old and dependent on a pension, or to compare different products when the differences are complex and not easily compared. We value consumption today more highly than future consumption, and resent what seems like loss of income now.

> "There is plenty of evidence that too much choice inhibits our decision-making as much as too little"

These effects, though universal, are not evenly distributed. While *Which?* found that only one in 250 consumers was "fully literate" – meaning, in *Which?*'s terminology, that they were in the top 10% of the population on skills, knowledge and engagement when making a consumer decision – we know that a much greater proportion of choices are made by those with less education, less information, or less time.

> "A much greater proportion of choices are made by those with less education, less information, or less time"

Those consumers, in turn, are more likely to be poor, and are hardest-hit in a downturn. Therefore, if research can give a more rounded picture of the decision-making process, it won't just be a more useful snapshot of reality, it will help to create more customer-friendly interventions at little or no cost – provided, of course, that firms wish for that to occur.

Failures and blunders

So now we know that consumer decision-making in the real world is often poor, and subject to constraints of which we are often unaware. In addition, the predictive capacity of market research surveys is constrained because of the confounding factors of environment or framing. And there's the flawed assumption that people are good witnesses to their own 'rationality' – that when we give the reasons for making a choice, those reasons report an internal process accurately.

Knowing all this, can current market research methods and models be sustained? Should they be improved, or simply overthrown? Is there anything worth salvaging?

Not much, if you agree with Philip Graves, behaviour consultant, author of *Consumer.ology*, and someone who begins the blurb for his book with the statement that "market research is a myth". Relying on our post-rationalised insights into ourselves, he says, is the cause of "product failures, political blunders and wasted billions".

While he welcomes the intrusion of behavioural economics and psychology into market research, he points out that often this is to validate a fundamentally flawed process. "There's a legacy of doing things in a particular way, a lot of which revolves around some ropey research. It's not a conversation about evidence, it's a conversation about belief: [researchers] believe it's a valid thing to do, and they select the evidence where asking people questions leads to someone doing the right thing on the back of research," he says.

The dangers of half-understood methods concern Graves, who doubts that much of market research can be reformed – simply because it has made too big a bet on rational-agent methods, and so adds new thinking only as a postscript.

One example that he saw recently was a piece of research that tried to inspire System 1 thinking in shoppers by putting them under time pressure. It was flawed, Graves said, because "the way we work under stress is not the same as the way we work when we're wandering around a supermarket. It's far from clear that one is a good proxy for the other, but it taps into the idea that people use System 1 thinking when they shop, and when they react under stress."

Another time, Graves worked with a firm that had done some research in which "the fundamental insight on a two-year process was a consequence of asking people why they hadn't done something".

"When you ask people about something they haven't done, you get some wonderful stories. They come up with some kind of credible rationale, which paints them as reasonable agents of their own

A REAL STITCH-UP?

From PPI scandals to over-priced energy contracts, consumers often get stiffed for failing to read the fine print. But it's just not rational to do so, says *Which?* chairman Paddy Barwise

A *Which?*/YouGov survey of 5,257 UK adults aged 18 and over shows that few of us have the skills, knowledge and engagement to make informed decisions as consumers. This concerns Paddy Barwise, the chairman of *Which?*, but doesn't surprise him. A lot of it boils down to the decision-making shortcuts humans have evolved to take.

An example that Barwise quotes would be the mis-selling of PPI: a scandal that has seen almost £14bn set aside by banks for compensation – £6.7bn at Lloyds Bank alone.

While PPI was clearly not to the benefit of the consumers who bought the 34 million products sold, few of us noticed at the time. "Why did people buy things that were clearly not in their interests?," asks Barwise. "Those things, they are behavioural: I trust the man at the bank; I find this rather dull; I'm not good at assessing risks; and I make a decision now and the consequences are much later," he says.

Barwise dislikes the casual use of terms like "bias"; and also the description "irrational" to categorise consumers who make decisions without fully researching the terms of the deal. It's perfectly rational, he explains, not to read the Ts&Cs of PayPal before agreeing to them, because *Which?* research has found them to be longer than *Hamlet*. If those Ts&Cs have given a customer cause for complaint, he says, it's actually irrational to blame the consumer for not reading to the end of the small print. For this reason, *Which?* supports simplified forms of notification, like the traffic light labels on food – even if they do not always work as well as intended (see *The X Factor*, p29).

Taking advantage

When it comes to companies benefiting from the limited economic rationality of consumers, Barwise argues that the problem lies with the origins of an ethics-lite "kitchen sink" research process – try everything, and do the one that's most profitable.

"It's not that [these companies] looked at the economics literature and said, 'We will try this one' – they just carry on doing what works. When we looked at energy tariffs, even someone studying for a maths PhD couldn't work out his energy bill. So, more than 25% of people who switch energy supplier end up paying more than before. That is not a market that's working for the consumer."

If the problems are behavioural, then the solutions must be too, implying simplicity. Conventional economics might call for more transparency, but Barwise warns that this means more data for us to ignore, unless more attention is paid to the way in which "real consumers" make decisions. "It would be a great idea if you could provide more nuance and information, and people spent more time studying it. That would be ideal – but they're not going to do that. That's not what I would call rational," he says.

behaviour," says Graves. But an option not taken is even less likely to have been analysed at the time using what we now call System 2 than one that is taken. Post-rationalising in this way invites us to create an often-fictional System 2 narrative about ourselves, which is perfectly convincing for both subject and researcher. And it may overstate our real intention to change.

However, there's a line to be drawn between the problem that researchers apply unsustainable methods, and the problem that some research just isn't very good. There is bad research using every method; and applying new methods, no matter how well-founded they are, does not necessarily improve bad thinking.

Christophe Jouan, the chief executive of the Future Foundation, doesn't relish an extended methodological debate unless it means recognising the importance of context and social norms. "We do not see a big distinction between what's rational or irrational, conscious or subconscious," he says. "We see a lot of behaviours falling between them. The whole debate around behavioural economics is not that helpful."

With Meabh Quoirin, MD, and James Murphy, editorial director, he has published a book called *The Big Lie* about how social conformity and convention exerts a huge influence over how we respond to the world – and so to market researchers. "*The Big Lie* is not about irrationality," says Jouan. "The premise is that what we call social norms is how people want to be perceived, how they want to perceive themselves. We become our own brand. We don't want to be too different to others, beyond being quirky and funny."

The Future Foundation validates this by examining the difference, for example, in responses to research when there's social interaction. That creates two levels of insight: what we say when we're alone, and what we say in company. Both are valid, Jouan argues, if you want to act on them. Yet we are distracted by the narratives that consumers create to satisfy social norms.

> "Applying new methods, no matter how well-founded they are, does not necessarily improve bad thinking"

"We have been tracking people's interest in localism, and people's appetite for authenticity. We have been tracking this for 30 years. On one hand, people say they want local produce. But the reality is that people don't care about it more than they did 30 years ago. These are trends created by the marketing community."

New ways to work

If a careful integration of behavioural methods with market research is possible – and here we're talking about things like systematic behaviour observation and eye

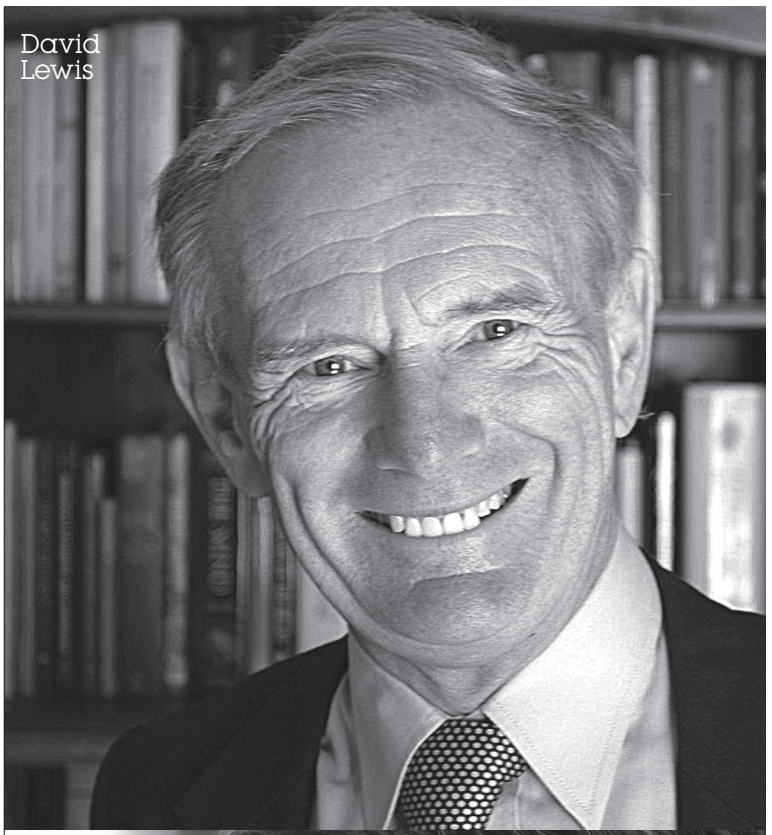
tracking – then it's worth noting that the industry has recently walked a similar path with the techniques routinely labelled as 'neuroscience'.

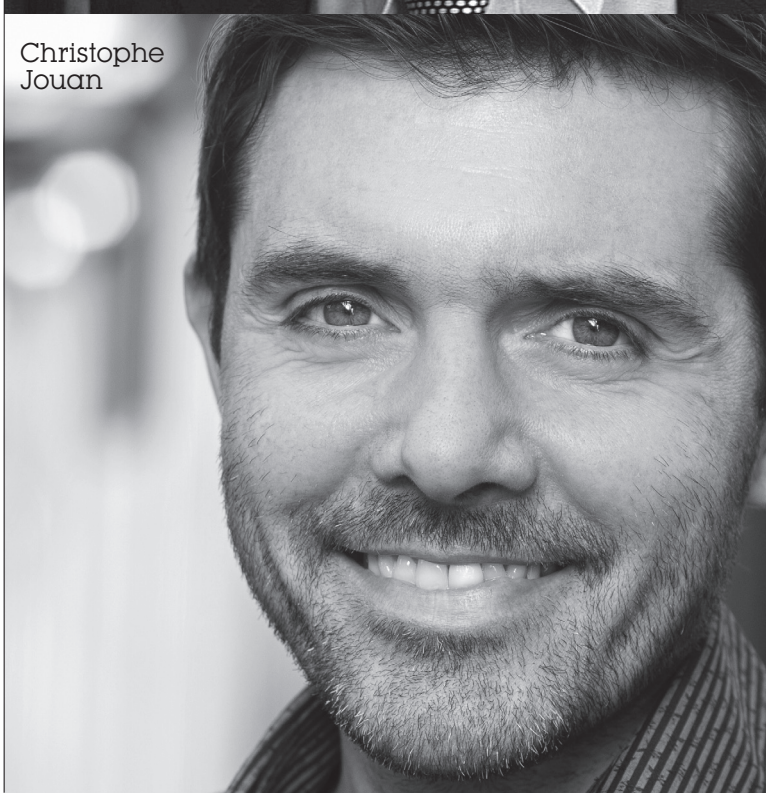
Dr David Lewis, chairman of Mindlab, is author of several books on how neuroscience can be applied to research and marketing – most recently *The Brain Sell*. As an academic who had to build his own equipment at the dawn of neuroscience's involvement with market research, he has seen the hope, the hype and the inappropriate use of the technology. His warnings on what can happen if we apply half-understood methods are familiar. "At the start of all this madness, companies were spending money on equipment they didn't understand. Although there are some clowns still practising, it is settling down."

As a brain scientist, Lewis interprets what he describes as the "PR function" that post-rationalisation provides, not as a function of inbuilt biases or evolutionary impulses, but as a consequence of chemistry. "Our brain operates on very little energy, about 20W. The way it does this is by doing most things on autopilot: brands are a heuristic for buying things, for example. But one of the consequences of this is that, when we ask people what they like or don't like, they can't always give us the truth."

Mapping EEG – the electrical activity in the brain – shows how it is working in real time. "But we can't measure thoughts, just the neurological correlation of thought. Any research intervention is a confounding variable. There's no way round that."

Neuroscience shows the possibilities and the limitations of the experimental approach that is commonplace in behavioural, psychological and neuroscientific research. On one hand, fitting a cap to a shopper to measure brain function, which is then matched to


David Lewis


Christophe Jouan

eye-tracking data, bypasses our desire to rationalise our behaviour. On the other hand, any experiment is unnatural, and is hard to scale. "N=40 is a big sample when we are working," Lewis warns. "For FMRI (measuring blood flow to the brain in a scanner), N=20 is a big number."

Some of the "clowns" that Lewis describes were hastily established units in large agencies, responding to client pressure while not wanting to cannibalise existing business. Graves sees the same process happening with behavioural techniques – agencies that are "quick to sprinkle a little bit of sauce on what they do".

> "The unreliability of consumer recall and response has given rise to the temptation to observe only"

But Colin Strong, GfK NOP UK managing director, technology, rejects the implication that large firms are too invested in providing traditional answers to clients. He has set up a dedicated unit to behavioural economics, and works with City University to do original research. He believes that new methods can fit smoothly with existing research.

"It should be part of the repertoire at all agencies, but it can be used in tandem with the methods we have. It has long been understood that the model isn't entirely sustainable, but that's kind of accepted. If we are careful not to ask questions that elicit responses that play to that, we may find that many of the methods we already employ are sufficient," he says.

The advantage of a large agency is that they have the resources to do this work seriously, he adds. He can employ post-docs, and give them challenging work to do in an academic environment. GfK can invest in research that doesn't have an immediate application. Most important, it can hire people who don't get too excited about behavioural science, because they know the problems as well as the advantages.

"It's the classic trap of market research: we get too excited about the toolkit, rather than the business challenge. We should be technique neutral," he says.

There's more than one way to ask why

The unreliability of consumer recall and response, however, has given rise to the temptation to observe only – which partly explains the vogue for big data, in which we put aside any type of interaction or post-rationalisation altogether.

But at the Future Foundation, Jouan warns: "That would be wrong. Big data tells you a part of the answer that can be useful – but it never tells you why. It becomes hard to say what will happen next.

"Big data worries me: we are doing web analytics, social media listening, and we try to be objective," Jouan says. "But, when you start analysing Google searches – depending on how you choose parameters – you can get a trend in any direction. Depending on the trend you want to find, you will find it. You can make analytics tell you what you want."

Like Jouan, Mark Earls focuses on social interaction as a complicating factor for rational-agent models. But he considers this to be a path towards clarifying which methods we should be using. Earls' books, *Herd* and *I'll Have What She's Having* have emphasised not just the usefulness, but the practicality of mapping social effects.

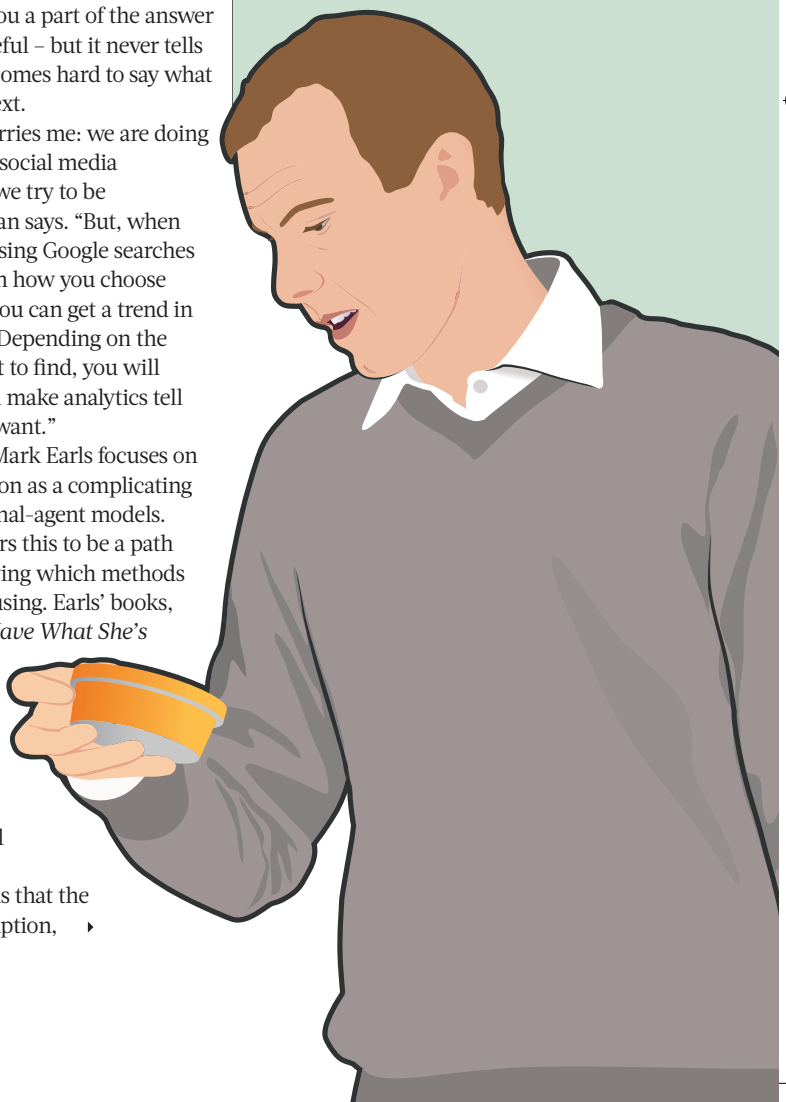
Earls explains that the "bogus" assumption,

ARE WE REALLY IRRATIONAL, OR JUST ADAPTIVELY RATIONAL?

Elina Halonen and *Leigh Caldwell* of The Irrational Agency interview psychologist and author **Vlad Griskevicius**

Elina Halonen

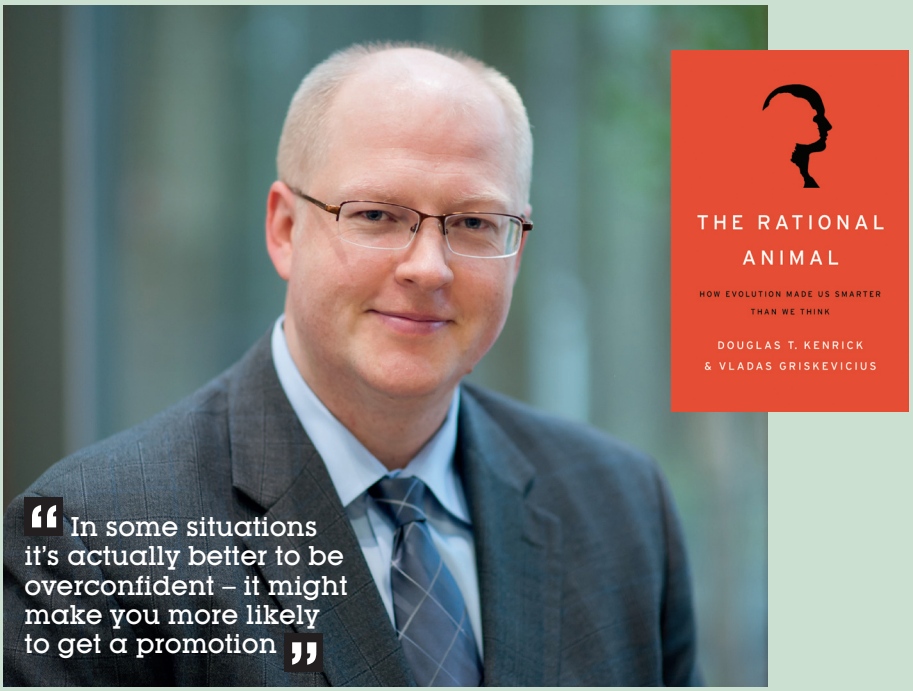
Leigh Caldwell



Thanks to all the books, conference talks and articles on behavioural economics in the past couple of years, we've all learned just how irrational we humans are. But a new book called *The Rational Animal* by Douglas Kenrick and Vlad Griskevicius sets out a framework to understand how biases are not necessarily irrational when examined from an evolutionary perspective.

As the book says: "Bias is often seen as a dirty little word. We are taught that we should avoid bias and instead strive to be accurate, rational, and smart. Yet the reality is that our minds evolved to be biased – to predictably make specific types of errors and decisions that appear irrational."

This approach, sometimes known as "adaptive rationality", shows why our apparently biased behaviour is actually rational in the sense that it helped us to adapt to our environment either today, or at some point in the past. We put some questions to Vlad Griskevicius to find out how this idea of adaptive rationality can be of use to market researchers and marketers.



"In some situations it's actually better to be overconfident – it might make you more likely to get a promotion"

Your book centres on the key insight that human decision-making serves multiple evolutionary goals. If people want to satisfy these goals, how do they decide between them or trade them off?
Whether one goal dominates another is a function of the situation and the person: if you're on a hot date and come across a man with a gun, it depends on the individual whether their 'self-protection' or 'mate acquisition' subself dominates. The subselves and goals do also collaborate and feed off each other. For example, some people would argue that status and mate acquisition are the same thing, which is largely true for men but not so much for women.

Throughout the book, you take a critical view on the findings and views of well-known behavioural economists, including Daniel Kahneman. What's your main critique of them?
Actually, I'm a huge fan of behavioural economics. My take on this is that BE has found a list of biases and deviations from rationality and this book is trying to come up with a theory for why we have these biases. The most novel aspect of the book is looking at the fundamental, evolutionary motives – a lot of these biases exist to solve adaptive problems, so we need to ask what problem it's addressing. I wanted to develop a framework to help predict behaviour more accurately.

What do you think is the most 'misunderstood' bias?
One that comes to mind immediately is the overconfidence bias: for example, some 90% of people say they are above-average drivers, even if you ask them when they are recovering from a car accident in a hospital. However, recent research suggests overconfidence is actually evolutionarily adaptive as it increases persistence. In some situations it's actually better to be overconfident – it might make you more likely to get a promotion.

The instability of preferences is also one of the cornerstones of behavioural economics, and potentially poses a huge problem for market researchers: so far, we've largely assumed – like the rational economists – that consumers' preferences are stable over time and we merely need to ask them to find out what they are.
As with biases, unstable preferences make predicting behaviour very difficult. Theoretical frameworks are highly useful in marketing contexts because they take out randomness: people are inconsistent by design, but predictably so. For marketers, this might impact decisions on advertising time, which is usually bought based on things like the demographics of the viewership – the programme itself is rarely considered. However, the effectiveness of the advertising depends on the content, so it really matters. Each ad will be consistent with a specific evolutionary goal and marketers should either identify what it is, and deliver it along with similar content, or deliberately activate that goal. The same ad can produce a wildly different response: for example, imagine the difference between seeing an ad at a sporting event where everyone is riled up compared with seeing it at someone's house.

Are there particular kinds of preferences that are less stable, and which ones are most likely to matter to businesses?
No research has been done on that but some attitudes are pretty stable. For example, activating different subselves won't change your views on abortion, but FMCG products are much more malleable. Overall, when it comes to consumer behaviour, much more of it falls into the malleable section.

In your view, what are the biggest lessons for both marketers and market researchers in your book? How do we understand consumers' motives without asking them for their reasons? Will some of the techniques of behavioural economists such as experiments or tools like the Implicit Association Test do the job?
In terms of focus groups, the problem isn't so much with the methodology itself but that it's often that the people conducting research are lacking a theoretical framework to underpin their thinking, so it's not anchored to anything, but merely based on people's intuition about what could be going on. This book provides a universal, cross-cultural, cross-category framework of motivations: while the external expression of the motives and how you achieve the evolutionary goal might slightly change depending on age, sex, life history and culture, the underlying motives remain. Ultimately, it's about shaping people's preferences at the point of choice.

> "The problem of creating better research goes hand in hand with how to sell it to clients"

that we individually optimise our utility, is a culturally appealing one to individualistic societies in Europe and North America – and so has tended to be designed into research methods by default.

"Market research is based on the assumption that individuals do what they do independently of others, that individuals know what they do, and we can access it, and can predict how they will react in the future. We know from marketing science, never mind bothering with behavioural science, that this is nonsense."

But Earls does not share the pessimism of Graves. He is optimistic that researchers can build methods that take the best of both the rational-agent and behavioural models – as long as market research methods evolve so that agencies are what he calls "intellectual framers" of the problem, rather than just appliers of a standard insight machine. This is one of the reasons that he, and co-author Alex Bentley created a simple model to categorise behaviour along two dimensions: individuality to copying, and high choice to low choice. This gives four categories of behaviour: considered, copying experts, copying peers and guesswork.

"Our four-box model is a useful way of asking what kind of behaviour we are dealing with before we start.

It's a way of saying, is this individual behaviour, or something else? Is this a case of people considering something, or is it guesswork? Then you decide how you approach researching it from there: what kind of precision do we need, or is it simply enough to ask people where they will spend their money? It would be nice to be clean and ideological about it, but there are practical considerations to bring into the conversation."

The problem of creating better research goes hand-in-hand with how to sell it to clients. At the Hunting Dynasty, a behaviour change consultancy, founder Oliver Payne worries that "clients who want to buy an outcome, not an execution, are few and far between": that the comfort that clients draw from their knowledge of existing methods make experimental approaches a turn-off.

But Earls argues that it is the responsibility of the industry to integrate these approaches rigorously, because the worst route to take would be to simply attach biases or other behavioural explanations to wish away inconvenient results ("I am more worried about people who say, 'This just happens to coincide with this paper in *Sociology Today*'," he jokes).

But, unlike Graves, he believes that market research can evolve successfully precisely because it is pragmatic: "How does research change? I suspect that it's not going to be through theological discussions. It's about developing practices that work, and developing communities of interest around those discussions." ■