The growing pains of behavioural science

As behavioural science grows from its academic roots to become more applicable for wider use, it must address a new set of challenges and opportunities. Elen Lewis **reports**

Behavioural science is no longer a peripheral activity. From nudging people to make better choices about health and helping to combat climate change, to empowering the business world to better understand consumer behaviour, this discipline is influencing many areas of life.

There's no question that best practice in this discipline has a magical potency. These examples are almost Disney-like in their impeccable storytelling. Take the Colombian Ministry of the Environment and Sustainable Development's work with Ogilvy on the problem of the pesky lionfish, escaped from an aquarium and endangering hundreds of species. Behavioural science helped to solve the issue with a beautifully simple idea – eat it. By working with Colombian chefs and creating an entirely new supply chain, Colombians were encouraged to eat the lionfish, depleting its numbers. With 80% of the country's population Catholic, even local priests were encouraging their congregations to try lionfish for their Lent and Easter dinners. Colombians ate one species and saved thousands in return.

"We've been making it up as we go along... some of the best practice hasn't emerged yet"

There are 300 behavioural science teams (and counting) in governments, businesses and organisations globally – the discipline has expanded greatly. However, with growth come growing pains. As behavioural science travels on its journey from academic wizardry into a standardised practice that can be applied effectively in the commercial world, it faces a new set of challenges.

"We've been making it up as we go along. We're taking what we know about business, marketing and public sector challenges and bringing it together with academics. The growing pains are simply there because it's a new field and some of the best practice hasn't emerged yet," says Tara Austin, consulting director, behavioural science practice, Ogilvy. Austin was a founding member of Ogilvy Change, the agency's behavioural change practice, and was behind an experiment to reduce antisocial behaviour in Greenwich after the London riots by painting babies' faces on shop shutters.

Independent behavioural scientist Nisa Bayindir agrees that there are growing pains happening with applied behavioural science. "This is an area that

draws a lot of attention," she says, "but clients don't know what to do or how to integrate it into strategic research development."

Bayindir wants to see more behavioural science education among clients and agencies. "They [clients] don't know what behavioural science can offer that quant or qual can't. Companies need to decide what their offering will be. Is it action-orientated – how to get consumers from A to B? Or is it about understanding why something is being done or not done by consumers?"

Bayindir has a useful analogy to differentiate between behavioural science and quantitative and qualitative research. Behavioural science allows you to see a map of a whole city, while qual and quant help you zoom into one street.

Better communication about the value of behavioural science can put everyone on an even playing field, argues consultant Richard Shotton, author of *The Choice Factory*. "Experts need to communicate as simply as possible. It doesn't have to be complicated. You can explain everything in two minutes."

Behavioural science defined

One of the 'growing pain' issues with behavioural science is a misunderstanding about what it really is. It's best to consider behavioural science as an umbrella term for many different disciplines that combine to give a greater understanding of human behaviour.

These might include economics, consumer psychology, neuroscience, marketing psychology, judgement, social science, decision-making, sociology, anthropology, and more. "It is the cross-disciplinary, open-minded science of understanding how people behave. It cross-fertilises, and brings closer together, insights and methods from a variety of fields and disciplines," says Matteo Galizzi, associate professor of behavioural science at the London School of Economics.

It wasn't long ago, for example, that behavioural science was more widely known as behavioural economics, but this semantic shift seems to be indicative of the evolution of the discipline. Implicitly renaming behavioural economics as behavioural science widens its influence and practice.

"Over the past six to seven years, there's been a worry that what we communicate as an industry has been hollowed out and reduced to a collection of buzzwords," says Ian Murray, co-founder of House51. "Behavioural economics is a term we think twice

The Flower of Life

In Brazil, the women of the Amazonian rainforests are three times more likely to have cervical cancer than the rest of the population. But in an area deep in the forest, with no roads or mobile phone signals, and low literacy rates, the Brazilian health department was struggling to come up with a solution to remind women to have regular pap (smear) tests.

Traditional communication – such as leaflets, posters or other advertising media – would not have an impact with this audience. A 'nudge' to drive change needed to be culturally resonant. Plants were already relied upon by local communities for sustenance and medicine, so nature offered a creative intervention to help change behaviour.

The Flower of Life is an orchid from the cattleya hybrid that blooms once a year. More than 5,000 were distributed to Amazonian women through social workers, health department workers and local events, impacting one million women.

Developed in batches, the flowers bloom at different times each year, so as not to overload the health service. The women say the flower acts like a calendar, reminding them to attend a clinic for their annual gynaecological exams.

The Flower of Life message was created by Ogilvy Brazil for Hermes Pardini Laboratories and Para State Department of Health.

about using because the popular interpretation is that it's become how to figure out which button to press to control people. That implication has led to a reductive and damaging culture."

Ogilvy's Austin is convinced that language is a key challenge facing behavioural science today. "Our language doesn't marry up to our thinking," she says. "It's like the Sapir–Whorf hypothesis – if we don't have a word for something, we can't understand it. Our language of how we categorise interventions is not there."

Austin points out that there are big differences between behavioural science interventions such as price framing, procedural change or a physical intervention. While price framing might result in a brand anchoring value in a comparison – by framing a monthly gym membership as the same value as 10 flat whites, for example – procedural change might be seen when a form moves from being opt-in to opt-out to encourage a particular behaviour. In 2015, for instance, when UK workplace pensions changed to become opt-out, more than nine million UK employees began saving for their retirement.

In contrast, a physical intervention to encourage abattoir employees to wash their hands by stamping them with a sticky ink print of a picture of salmonella as they enter work, which then needs to be washed off, feels very different. Yet these interventions are described in the same terms.

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Replication crisis

Another growing pain for behavioural science is the replication crisis. After the Nosek study in 2015, when Brian Nosek's lab was unable to reproduce findings after replicating 100 studies from three psychology journals, replication of studies have been put under the microscope. It's important to note that behavioural science is not alone; there is a replication crisis in other fields, too, including cancer research and economics.

Shotton, however, believes the replication crisis has a positive side. "This is an evolving discipline getting rid of bogus findings," he says. "As long as people are learning and we're stopping reference to studies

found not to be true, then the psychology is becoming more powerful."

Alongside replication, academic psychology experiments face criticism because of the 'weird' phenomenon. Participants of academic research are overwhelmingly 'weird' – that is to say, western, educated, and from industrialised, rich and democratic countries. They also tend to be college students from the US. This lack of diversity of the source of data shines a new light on many findings, suggesting it is not a world view.

While Murray is concerned about the lack of diversity and inclusion in the data, he believes this questioning is only a crisis if behavioural scientists take everything at face value. "Our industry needs to be more discriminating about the science rather than applying popular greatest hits without thinking deeply about it," he says. "We have an opportunity to help move the science forward by testing frameworks using mass samples. We should be participants of the science rather than uncritical clients of the science."

Working with Thinkbox, for example, House51 replicated a small, academic biology experiment on the idea of costly signalling with a large, nationally representative sample of 3,000. In the field of advertising, this theory can help to explain the success of large sponsorship deals or the appeal of a Super Bowl ad. Costly signalling – the idea of the peacock tail – is harder to fake and, therefore, more believable.

Thinkbox wanted to make a similar link with TV as an effective, premium ad channel. While the science suggested this should be the case, it was a calculated risk, but the research confirmed that TV remained a good place to invest marketing budget, even alongside social media. Moreover, the costly signal for TV was

just as strong for 16- to 24-year-olds versus social media as a channel. "If you do something rigorously and in a way that moves the science on, there has to be a commercial edge," adds Murray.

Sometimes, it feels as if behavioural science might just change the world and make it a better place. Stories in this discipline are seductive and powerful because, often, the best examples of the practice happen in the public health space – such as reducing child mortality in the Ecuadorian Andes, where more than 300,000 children suffer from chronic malnutrition. Living in isolation, far from health centres and with a cultural mistrust of modern medicine, many of these children's health problems are undiagnosed.

Using the *sikinchi*, the blankets local mothers use to carry their children on their backs, different patterns in local dialect marked out different sizes of children according to the World Health Organization. By tapping into a local, cultural icon, the Ecuadorian health department, with Ogilvy, was able to change behaviour with a 'mother blanket' that doubles as a paediatric evaluation system.

While there are hundreds of examples of nudging for good, the danger of 'sludge' – using nudges or interventions to manipulate people for the wrong reasons – continues to be a concern.

In *Nudge*, Richard Thaler and Cass Sunstein identify three guiding principles that should be top of mind when designing nudges: they should be transparent and never misleading, easily opted out of, and driven by the strong belief that the behaviour being encouraged will improve the welfare of those being nudged.

From academic enclaves to corporate outcomes

The academic roots of behavioural science bring additional challenges beyond replication and 'weird' participants. Colin Strong, head of behavioural science at Ipsos, believes it's time for the market research industry to focus on client outcomes, rather than getting caught up in the content and the process. "We need to keep asking ourselves, 'what are we trying to do with this?' Otherwise, if we're not careful, we end up having a values and beliefs conversation, rather than an outcome conversation."

Strong believes more standardisation and codification of behavioural science will help overcome this particular growing pain. "The discipline is moving, and needs to move, away from a small number of guru experts performing magic and into the hands of a wider population, where the expertise is operating within evidence-based frameworks to deliver positive and tangible outcomes."

While those operating in a particular space will consider their expertise hard to replicate, the challenge, according to Strong, is that it will never scale. "We need a democratisation of expertise, rather than leaving it in the hands of a small number of people who are gatekeepers to this knowledge. For example, the expertise of survey design has been codified and standardised, and I believe behavioural science should go down the same route."

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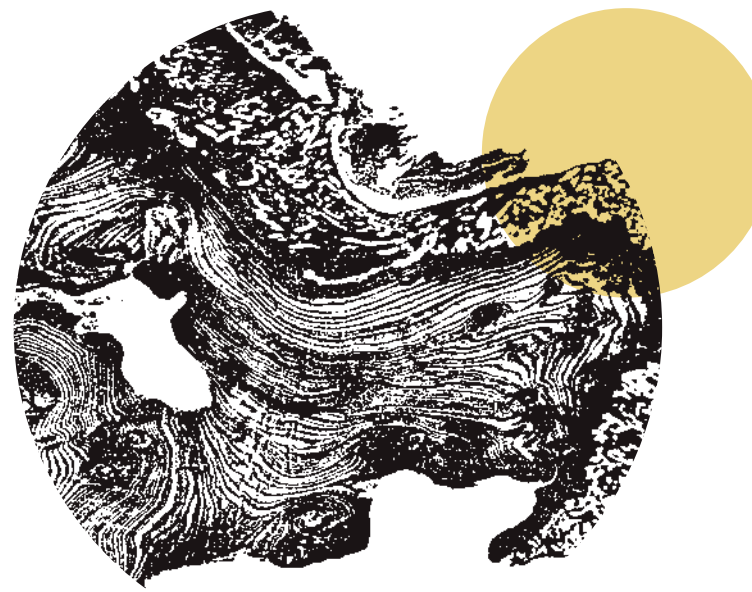
Standardising behavioural science is good for education because it "sticks", says Bayindir. "But these models mostly come from academia and aren't always widely applicable. We need to choose them with care for applied behavioural science because they might be too theoretical. Practitioners shouldn't just apply the Com-B model and forget their curiosity. This is a living, breathing discipline."

Behaviour-change models

The models Bayindir refers to are plentiful in the space – there are myriad behaviour models from the academic world that practitioners might use for behavioural science projects. Three that gained common grounding include the Com-B model, the East model and Mindspace (see boxout, 'Behavioural frameworks'). Many market research practitioners have also developed or adapted these models for their



own purpose. For example, Ipsos uses Mapps (motivation, ability, processing, physical, social), and Shotton expanded the East model into Creats (context, relativity, easy, attractive, timely, social).

Ipsos used a behavioural science lens to better understand how to encourage Scottish homeowners to protect their property from flooding. With more than 284,000 properties in the country at risk from flooding, the Scottish government wanted to identify what would encourage homeowners to take steps to manage flood risk and make their properties more resilient.

After qual research, Ipsos used two behavioural change models – ISM, a model used by the Scottish government to analyse individual, social and material factors that might shape behaviours, and its own Mapps model. It recommended clear, targeted and timely communications to encourage homeowners to take flood risk seriously and take the necessary steps to protect their home.

> **"If there are humans making decisions, behavioural science can have a role"**

The new power couple

With the addition of technology, behavioural science is being scaled in a way not possible previously. Practitioners are also using it in tandem with other disciplines, such as data analytics, opening the doors for broader use and allowing companies in a variety of sectors to design better processes.

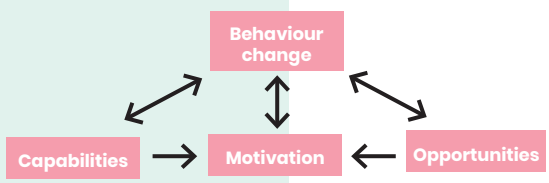
Crawford Hollingworth, co-founder of The Behavioural Architects, believes the coming together of data science and behavioural science has created the new power couple through its analysis of human behaviour on a much larger scale. He cites the example of the New Mexico government, which reviewed big data through a behavioural lens to identify three key moments when citizens are most likely to lie on their benefit claims forms: when entering reasons for leaving their last employment; when answering the question, 'did you work this week?'; and when confirming whether they had completed at least two work searches in the past week. Building on these moments, the team used priming and social norms, asking claimants to initial their statements because this can improve honesty. "New tech, such as the internet of things, means data can become available in real time, allowing for advanced personalisation and nudges tailored to context," Hollingworth says.

Ipsos's Strong also believes there's opportunity in linking behavioural science with data analytics, "to provide hypotheses about what we might find from the data and from making sense of patterns. We need

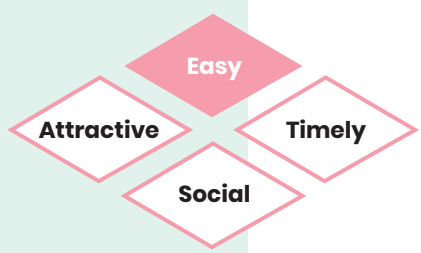
Behavioural frameworks

Three codified methods for characterising and designing behaviour-change interventions

The Com-B model



The East model



Mindspace

Messenger - we are heavily influenced by who communicates information
Incentives - our responses are shaped by predictable mental shortcuts such as avoiding losses
Norms - we are strongly influenced by what others do
Defaults - we go with the flow of pre-set options
Salience - our attention is drawn to what is novel and seems relevant to us
Priming - our acts are often influenced by subconscious cues
Affect - our emotional associations can powerfully shape our actions
Commitments - we seek to be consistent with our public promises, and reciprocate acts
Ego - we act in ways that make us feel better about ourselves.

(Source: Institute for Government)

inductive and deductive approaches, and for them to work together. Try to derive straight insights from data analysis without guiding principles of what to look for and how to make sense of what we find, and we will struggle to make sense of it."

For Google, The Behavioural Architects used behavioural science to help make sense of a big set of data – 36,000 online consumers – to understand decision-making and how to influence it during the online research process. Combining disciplines revealed a new model of decision-making that reflects the complexity of shopping behaviour in the internet era. The central component is the 'messy middle' – a loop consisting of complementary states of exploration and evaluation during shopping.

It also revealed how brand preference can be transferred within a category through the application of behavioural science principles. Across 31 categories, people's second-preferred brand can be made more appealing than their first by 'charging' it with stronger executions of behavioural science principles, such as category heuristics, authority bias and social proof.

What does the future look like?

As behavioural science matures, what might the future look like? Ogilvy's Austin would like to see an improvement in the language used to categorise interventions, a series of dominant models with which everyone is comfortable, more unusual ways of testing and piloting, and real-world approximation of interventions.

Not everything can be tested, of course. "How do you test a flower?" Austin asks. "Some of these interventions are highly creative and just require bravery.

"The truth is that behavioural science should be in everything. Any human decision happening anywhere, behavioural science will have something to say – whether that's in talent management, how to organise food in a canteen, or people wearing face masks. If there are humans making decisions, behavioural science can have a role."

Strong agrees, but with a caveat: "Behavioural science has a fundamental role to play in all big questions we face, and we need to be bold in the way we think about them – and modest; this is a perspective and there are other perspectives."

The role of behavioural science

Behavioural science has gained a strong and clear mandate among policymakers and marketers as a discipline that is, first and foremost, about making change happen. This represents a significant shift for the field, which tended previously to focus on new ways to understand people. A new openness has developed to accessing the social science literature to unpick human conduct, finding new ways to describe and account for behaviours.

While this was necessary, it is certainly not sufficient: the focus has now, rightly, moved to the outcomes the discipline can deliver and away from the detail of the 'method'. It is not enough to enhance our understanding; we need to use it to deliver tangible outcomes in terms of changed behaviour.

So, why has behavioural science gained such prominence now? After all, it has a long history in academia, but it is only recently that it has moved much more centre stage in applied settings. This is because of the huge changes and challenges we now have to navigate – such as climate change, digitisation and Covid-19. The increased instability and unpredictability of our lives means that, while people are often keen to make change happen, it is not always easy to enact the outcomes they seek.

Behavioural science expertise is directly helping to navigate these turbulent times, facilitating a wide range of positive commercial and social-policy outcomes.

So, how will behavioural science continue to have an ever greater role in driving change? All professions, necessarily, go through their own evolution, where expertise is democratised to allow access to a broader range of people. We can see the same trend with behavioural science; its strength comes from bringing other disciplines – such as market and social researchers, service designers, digital specialists and data analysts – into the fold. Exciting new frontiers are being created that mean behavioural science is becoming an essential way of understanding and navigating the world.

Applied behavioural science is rapidly evolving as a critical tool for driving change, which positions it firmly as a means of supporting marketers and policymakers to meet commercial and policy objectives.

Perhaps this is the real change we are seeing for the discipline: rather than finessing and refining at the home straight, we are now front and centre of much more holistic transformation strategy, and, as such, very much in the centre of decision-making for any organisation.

Colin Strong, head of behavioural science, Ipsos