Behavioural Change Models

An overview of **the two best** behavioural change models and **how to apply them**

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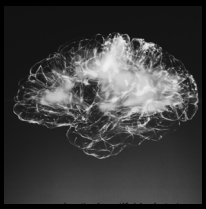
The Behavioural Architects



THE *BEHAVIOURAL* ARCHITECTS

Behavioural Change Models

MOTIVATION

CAPABILITY

OPPORTUNITY

TRIGGERS

BEHAVIOUR

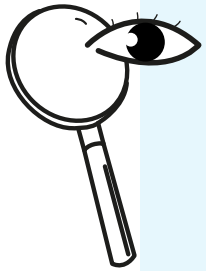
ABILITY

INTRODUCTION

Behavioural change is one of the 'holy grails' for any marketer. Effective strategies for getting consumers to start, stop or change a behaviour are much sought after, and success can be elusive. As behavioural science has evolved, experts have developed robust frameworks and models to help apply behavioural science in a rigorous, systematic way, thereby effecting behavioural change.

In this publication, we bring **two of the best behavioural change models to practitioners' attention**, examining them in detail, exploring how to apply them and highlighting the specific contexts and challenges each are best suited to. The two models are: first, the COM-B model, developed by University College London and, second, the B=MAT (now known as the B=MAP) model developed by Stanford Professor and behavioural psychologist BJ Fogg.

Both models are used by practitioners to firstly analyse and then ultimately tackle behaviour change challenges. By understanding why or how behaviour can occur, practitioners can begin to understand existing behaviour and also what they need to change to build a new behaviour.



01. The B=MAT model:

Behaviour = Motivation + Ability + Trigger

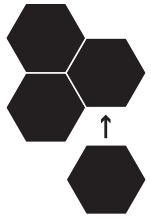
02. The COM-B model:

Behaviour = Capability + Opportunity + Motivation

ESSENTIALS

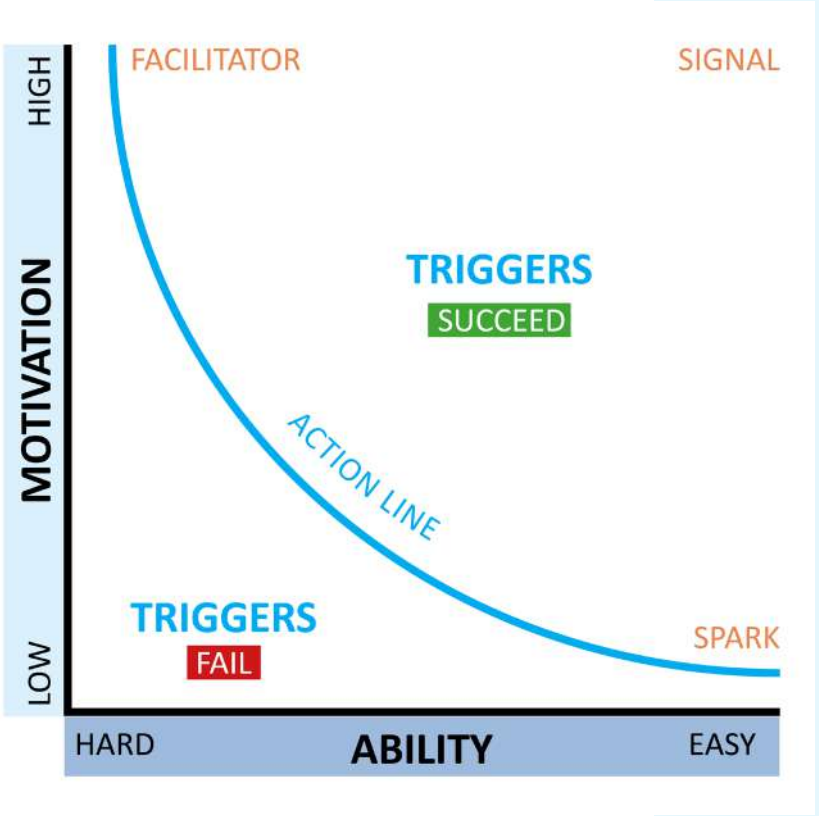
What you need to know about each of the two models

Both the B=MAT model and COM-B models provide a structured framework and a common reference point for any behaviour change team to think about the behaviour they want change. They allow the practitioner to both understand what people are currently doing and look at how they might move people towards a new behaviour. For example, whether people can be encouraged to better manage money and repay debt, or how they can be encouraged to commute by bike, bus or train rather than the car. Each model has different strengths and suitabilities, which we'll identify in our discussion below and in a short comparison.



The B=MAT model:

Behaviour = Motivation + Ability + Trigger



The premise of the B=MAT model is that behaviour change is the result of three specific elements coming together in the same moment: motivation (M), ability (A) & an effective trigger (T).

The model implies that motivation and ability are trade-offs of a kind. If motivation is high enough, people will overcome barriers and deficits in their ability. If ability is high enough or the target behaviour is simple enough to do, people may overcome low motivation. The model is also known as the Fogg Behavioral Model (FBM) and the B=MAP model where P stands for 'Prompts' but essentially still refers to triggers. It was developed in 2007 by BJ Fogg, Professor of Behavioural Science and Director of the Stanford Behavior Design Lab at Stanford University. [1]

Strengths of the B=MAT model:
It's good for…

- Identifying how to trigger behaviour change
- Generating executional ideas to address behaviour change challenges
- In-context persuasion - the 'last mile'

Model strengths: Identifying how to trigger behaviour change. Specifically:

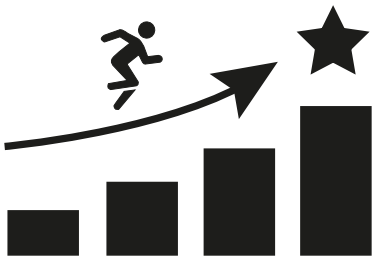
- In-context executional ideas, in the form of triggers, to steer people to adopt a target behaviour or stop an undesired behaviour.
- Problems or gaps in persuasion and influence to achieve a target behaviour or stop an undesired behaviour.

Component parts of the model:
01. Motivation
02. Ability
03. Triggers

01. Motivation:

What might motivate us to carry out a behaviour? Fogg outlines three broad areas of motivation, broken down further into subtypes:

» **Sensation** – this is a very primitive, automatic type of motivation, with little thinking or reflection involved. Examples are hunger, thirst, sex, pain and other visceral responses.
» **Anticipation** – specifically, this might involve feelings of either fear or hope. Fear is related to loss such as the loss of health or looks or having to pay a penalty or fine; hope is a positive feeling related to the possibility of something good happening such as finding a partner on a dating website or saving money.
» **Belonging** – we may be motivated to gain acceptance by our peers and avoid rejection, particularly teenagers and young adults for whom peer approval is often a significant driver of behaviour.



02. Ability:

Whilst we might have oodles of motivation, we still need to be capable of doing the new behaviour at a specific point in time or place. In this model, ability is less about skills and more about in-the-moment capacity to carry out the behaviour. Fogg believes that enabling a behaviour in the moment is not necessarily about teaching people to do new things or training them to improve. Instead, it's more about making the behaviour easier to do and enlarging that in-the-moment capacity.

Richard Thaler, co-author of the bestselling book 'Nudge' often reminds us that if you want someone to do something, we need to 'make it easy' or simple to do. A classic example is 1-click purchasing- it's easy to find on the webpage and no effort to do. In this case, ability is high.

Fogg outlines six different factors of ability, many of which relate to whether we have different types of resources available to us. The model acknowledges that different people will have different abilities: some will have time or mental bandwidth in abundance, others money or physical effort. Here are the six areas:

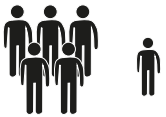
- **Time:** If our time is scarce – if we're in a rush or busy with something else- we're less likely to engage in the target behaviour.

- **Money:** Likewise, if money is scarce and we need it for other essential items, we're unlikely to buy something.

- **Physical effort or physical capability:** if a behaviour takes a lot of physical energy, for example, walking several miles to buy a product, or is difficult physically, it's unlikely we'll do it.

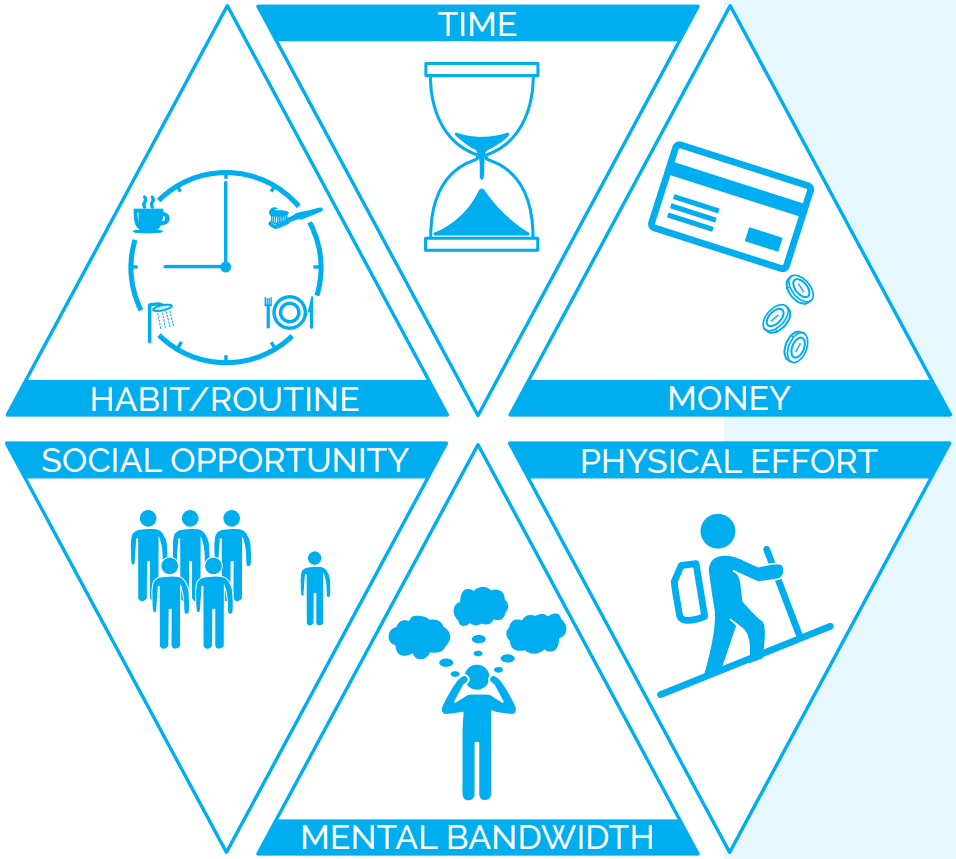
- **Mental bandwidth:** Fogg calls this 'brain cycles' but at The Behavioural Architects we tend to prefer the term 'mental bandwidth' or psychological capability. How hard do we need to think about doing something? Do we believe we can do it? Do we have the mental bandwidth to engage with it at this moment in time or are we overloaded with other demands?

- **Social opportunity or social deviance:** Is the target behaviour approved of in society? Is it also already being done by others (that we know)?



- **Habit/routine:** Is the behaviour part of our existing routine or habits or could it be easily added to our routine? If it's a new behaviour or a one-off behaviour, such as switching bank accounts or getting a flu jab, it's less likely we'll do it and we're likely to just stick to our existing routine.

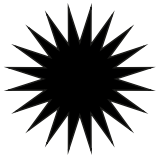
The Six Factors of Ability



03. Triggers:

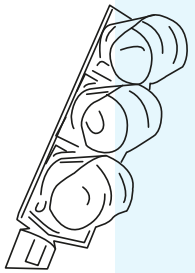
The final area looks at what might trigger someone to do the behaviour, particularly if they have almost enough motivation and/or ability and just need a final nudge. Fogg highlights the importance of timing for this component, pointing out that the ancient Greeks even had a name for it: 'kairos'- the opportune moment to persuade. He outlines three types of triggers or in-context cues which ultimately nudge someone to carry out the target behaviour in the moment. Providing the right kind of trigger can help get someone over the behavioural 'threshold' to achieve the target behaviour.

» **Spark** – a 'spark' raises motivation if someone doesn't quite have enough motivation to do a target behaviour. What are the benefits of doing the behaviour? Can it bring them peer approval or pleasure? For example, highlighting the benefits of getting a flu vaccination by drawing on the emotions of fear could be enough to convince someone to make an appointment.



» **Facilitator** – a 'facilitator' raises someone's ability, effectively giving them 'a leg up' to enable them to do the target behaviour. Making something cognitively easy to do is one example, making it free to do is another. Amazon's infamous 'one click' purchasing is a typical example. Another might be to facilitate customer use of self-scan facilities in stores to avoid the checkout queue.

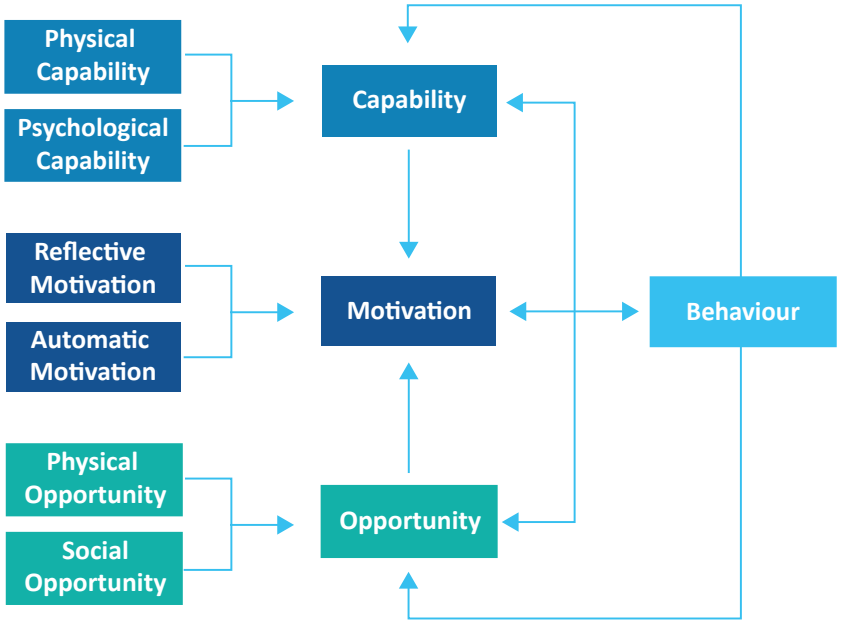
» **Signal** – a 'signal' or in-context cue works best when someone already has enough motivation or ability to do the target behavior, but they just need a reminder in the moment. A simple example is a traffic light going green. Another is a study which reminded people to use a free coffee coupon by placing a toy alien on the counter where they paid for their coffee. The sight of the unusual toy reminded them that they'd been given the free coupon. A current example comes from social media; 'micro-nudges', as they are called, are salient, small animations on a social media feed designed to catch the eye of the user and encourage them to engage further.



For instance, Instagram use micro-nudges to encourage users to add a comment or to tap on an image to view the tags, for example to see what brands of clothing a model is wearing.[2]

To sum up, a behaviour change team can use the B=MAT model to find out what might be missing and preventing a target behaviour from happening, or conversely, what might be triggering an undesired behaviour such as smoking. Sometimes intuition or existing knowledge will be able to identify what's missing. At other times in-depth research into the behaviour using the model may be required to unlock new insight in a structured way.

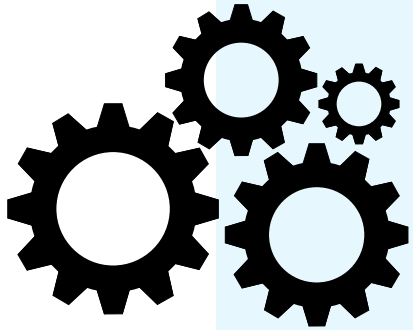
The COM-B model:
Behaviour = Capability + Opportunity + Motivation



Model strengths: Like B=MAT, the COM-B model provides a structured analytical framework but is more focused on developing strategies around broader behaviour change challenges, often with complex multiple variables.
For example, it might take the biggest barriers and identify how to build motivation or capabilities and skills from scratch, or how to provide increased opportunity, perhaps in the form of better facilities or technology.

The model was developed by a team from UCL in 2011; Robert West, Susan Michie and Maartje van Stralen[3]. Others have had similar ideas; a much earlier version[4] was proposed as far back as 1955 by Lilian Ripple for analysing individuals for social services cases. However, the UCL team drew on US Criminal Law which states that to prove that someone is guilty of a crime one has to show three things: means or capability, opportunity, and motive. After all, a crime is just a very particular type of behaviour!

Components of the model: The COM-B model rests on the understanding that people need sufficient levels of three interacting elements- capability (C), opportunity (O) and motivation (M) – in order to perform a behaviour (B). These three elements are further subdivided into two, making six elements in total.



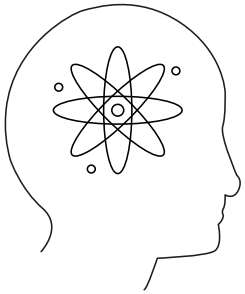
Strengths of the COM-B model Good for…

- Developing strategies for broader behaviour change challenges
- Identifying the biggest barriers to behaviour change and the components which require most attention.

Note that the three elements are interlinked and can feed into each other (see diagram). For example, increased opportunity or higher capability might increase motivation. Below, we take a closer look at the three components of the COM-B model.

01. Capability:

In this model capability is about whether an individual has the necessary skills and mental ability to do the desired behaviour. It centres on two broad types of capability:

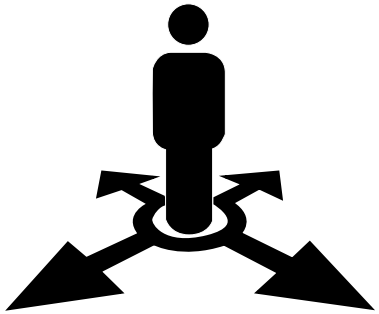


- **Physical capability:** this encompases actions and motor skills learned through practice and training such as driving or simply sufficient physical strength or agility to do the desired behaviour.

- **Psychological capability:** the second sub-element assesses whether someone has sufficient mental process or skill, for example, the memory, attention, decision-making ability or knowledge to do the desired behaviour. It can be broken down in four components:
  - » knowledge;
  - » cognitive or mental ability;
  - » interpersonal skill (does someone need to persuade or work with someone else to achieve the behaviour); and
  - » someone's ability to self-regulate i.e. control their behaviour and actions if needed.

02. Opportunity:

This area involves factors that lie beyond the individual that might help enable a behaviour, or make a behaviour possible or prompt it, for example prompts in the surrounding environment.



- **Physical opportunity:** Prompts and triggers in the environment, availability of facilities and services, and even the structure of the physical surroundings might influence behaviour. For example, do people have easy access to Wifi/broadband to enable them to access online services such as banking or welfare benefits? Or are there designated cycle routes that allow them to commute to work safely and easily? Note that this area overlaps somewhat with 'Signal' and 'Facilitator' triggers in the B=MAT model.

- **Social opportunity:** This considers whether people feel they have social permission to do the desired behaviour. Peer pressure might steer someone to do the target behaviour if they are aware of what others are doing or what others approve of. Therefore awareness of social norms and people's perceptions of social norms are important here. Are their perceptions accurate or do they underestimate the proportion of people around them doing the behaviour? Are there any role models already doing the behaviour? What is the culture and how is that affecting the target behaviour? Examples might include home recycling, eating less meat, becoming self-employed or starting/increasing retirement savings.

03. Motivation:

Like the B=MAT model, this involves analysing what might energise and direct behaviour. However, it's split into two sub-camps and differs from the previous model by placing equal emphasis on more considered, reflective types of motivation:

- **Automatic responses:** how habits, emotional responses and impulses might automatically direct our behaviour, almost without thinking. For example, a father seeing his child in distress is unlikely to even hesitate to come to her rescue. Habitual behaviours, like smoking, or even just locking the house also govern our actions to the point where we don't even notice ourselves doing them.

- **Reflective thought:** Conversely, there may also be occasions when we reflect on whether to do a behaviour, and carry out analytical, conscious thought, considering our various goals, plans, beliefs and identity in weighing up whether to go ahead.

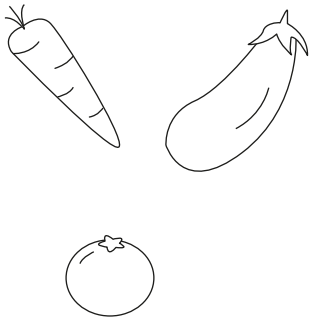
Comparing the COM-B and B-MAT Models

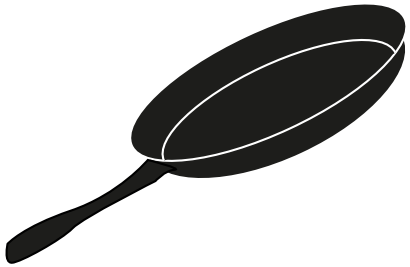
It's clear that there are a number of similarities across the two models. Both aim to a) understand behaviour and b) work out how to most effectively influence or change it to achieve a target behaviour and apply a systematic framework to thinking through behaviour change. Both place weight on and incorporate concepts of social opportunity, physical and psychological capability and emotional drivers of motivation.

However, as we mentioned above, there are notable differences in scope and aim between the models:

B=MAT is more suited to identifying in-context, instant solutions for persuasion using in the moment triggers, whereas COM-B is better suited to more strategic applications around broader behaviour change challenges, focused on filling in the gaps in people's capability, opportunity and motivation. For example, COM-B might be used to help design a weight loss program, or consider how to allocate organisational resources, or what long term training and learning needs tackling to enable doctors to better communicate with and address the needs of their patients, whereas B=MAT might be used to improve an existing app or develop simple prompts or facilitators to remind doctors to use and apply existing knowledge, approaches or treatment.

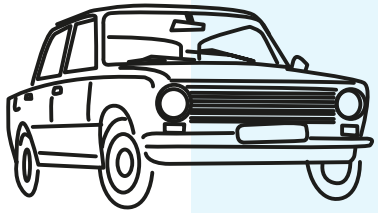
Secondly, motivation and capability take on different relationships to one another in the two models. In the B=MAT model, motivation and ability are a trade-off and to some extent, a substitute for one another meaning that if someone has enough motivation and drive to do something, it might be enough to overcome any deficits in their ability and vice versa. For example, someone might be sufficiently highly motivated to eat a healthy, more varied diet, but lack cooking skills and experience triggering them to subscribe to a meal kit service making it much easier for them to make themselves healthy meals. The COM-B model however, assumes that motivation and ability (capability) are equally necessary and can also feed into each other, so if ability is raised, that might also boost motivation. For example, someone who is unemployed but offered training to develop new sought-after skills to increase their (cap)ability might subsequently feel more motivated and inspired to find a job in that area after being exposed to the sort of work they could do.





Thirdly, triggers play different roles in each model. In the COM-B model, triggers are incorporated within opportunity (physical and social cues or prompts) and are defined as just one of the three equally-weighted factors enabling a behaviour. In the B=MAT model however, triggers are seen as the 'last mile', the final element that might tip someone over the threshold to carrying out a behaviour and might involve only a small effort or in-context tweak to change. For example, take the issue of encouraging people to drive in a more fuel-efficient way. Using the B=MAT model, a simple and successful trigger has been to change the dashboard design in cars so that miles per gallon information is displayed by default. Whilst the COM-B model might also consider this approach, it also considers broader strategic approaches such as encouraging people to replace their existing car with a more fuel-efficient car or develop a campaign to show how driving in a fuel-efficient way is socially desired.

Fourthly, types of motivation are more broadly defined in the COM-B model. The B=MAT model only really involves emotional types of motivation and does not consider reflective types of motivation as COM-B does. In B=MAT, automatic habits are classed as a type of ability that can help facilitate a behaviour rather than an automatic type of motivation.

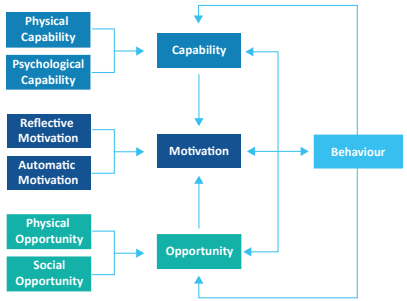


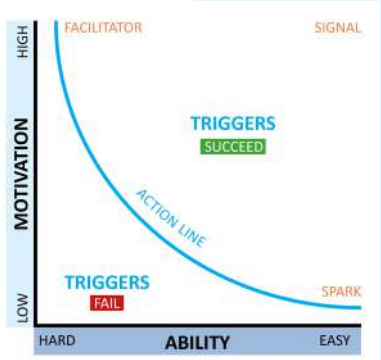
Finally, B=MAT specifically incorporates the idea of scarce resources, such as money, time and mental bandwidth within the concept of ability, which isn't specifically included in the COM-B model and could be considered a weakness. All three of these factors could likely be significant enough barriers to doing a desired behaviour, yet someone applying the COM-B model might not specifically be prompted to consider them. For example, a significant proportion of people don't do enough daily exercise, putting them at risk of certain health problems. Whilst the COM-B model would certainly identify important barriers such as lack of facilities or lack of confidence and fear of judgement, it could miss factors such as lack of spare money to participate in sport (for example, gym fees or kit), lack of time in a world where many people have competing demands on their time- long hours at work, commuting and caring for a family- or lack of mental bandwidth- having to put mental effort into how to practically build exercise into their day. In work that we did for a local council on people with multiple unhealthy behaviours, lack of money and/or mental bandwidth were the most significant barriers in the often chaotic lives of the target group.

Summary

Enabling and effecting sustained behavioural change is not always easy. Fortunately, as applied behavioural science has evolved over the past decade, experts have developed robust, easy-to-use models to help apply behavioural science in a rigorous, systematic way and effect behavioural change.

In this best practice paper, we've brought two of the best behavioural change models - the COM-B model and B=MAT model- to practitioners' attention, helping to make them accessible and provide guidelines for when to use which model. Applying these models will undoubtedly ensure strong and sound application of behavioural science.





REMINDER CHECKLIST

What type of behavioural change problem are you tackling? **If you need to develop a behaviour change strategy focused on filling in crucial gaps in people's capability, opportunity and motivation, use the COM-B model. If you're looking for in-context, executional solutions then use the B=MAT model.**

B=MAT Checklist

- **Motivation**
  - ☐ Sensation: Is a visceral, automatic response e.g. desire, pain, hunger, thirst motivating them to do the desired behaviour?
  - ☐ Anticipation: Does fear or hope drive them to do the behaviour?
  - ☐ Belonging: Are they driven by a desire to be accepted or to avoid rejection by peers or society?
- **Ability**
  - ☐ Time: Do they have time or feel they have time to do the desired behaviour? What other demands are there on their time?
  - ☐ Money: Does it cost someone to do the behaviour? Do they have enough money to be able to afford the desired behaviour? Do they feel it's affordable or worth spending money on?
  - ☐ Physical effort and physical capability: How physically easy is it to do the desired behaviour?
  - ☐ Mental bandwidth: How hard do they need to think about doing the desired behaviour? Do they have the mental capacity to engage with it at this moment or are they overloaded with competing demands or stressors?
  - ☐ Social opportunity: Is the desired behaviour being done by others? Is it approved of by society?
  - ☐ Habit/routine: Are existing habits and routines blocking the desired behaviour? Is the desired behaviour part of someone's existing routine? Is it new behaviour or a one-off behaviour, making it harder to do?
- **Triggers**
  - ☐ Spark- Are there any salient benefits or motivating factors driving people to do the behaviour?
  - ☐ Facilitator- Is there anything that makes it easier- or at least feel easier- for the person to do the desired behaviour?
  - ☐ Signal- What in-context cues are there to remind them to do the desired behaviour?

COM=B Checklist[5]

- **Capability**
  - ☐ Physical capability
    - » What abilities or proficiencies do they have or have they learned through practice? Do they need any equipment?
    - » Do they have the required physical strength, dexterity or agility required?
  - ☐ Psychological capability
    - » Knowledge- Do they know why they need to do it and how to do it?
    - » ognitive- Do they have the mental ability to do it?
    - » Interpersonal- Do they need to be able to persuade other people to do it or let them do it?
    - » Self-regulation- Do they know how to change their own behaviour? Do they have personal strategies?
- **Opportunity**
  - ☐ Physical opportunity
    - » Triggers and prompts- What is triggering the behaviour in the external environment?
    - » Space and time- What resources are influencing the expression of the behaviour?
    - » Objects / Services / Location- What are the environmental influences on the behaviour?
  - ☐ Social opportunity
    - » Peer Pressure- How is this behaviour influenced by the behaviours of others around them?
    - » Norms around behaviour- What are the social norms for this behaviour, both descriptive and injunctive?
    - » Credible Models- Who is modelling this behaviour?
    - » Culture- What are the cultural and linguistic resources influencing or enabling expression of the behaviour?
- **Motivation**
  - ☐ Automatic
    - » Habit- Is this behaviour influenced by habitual processes?
    - » Emotion- What are the emotional influences on the expression of this behaviour?
  - ☐ Reflective
    - » Identity- How is the behaviour linked to the individuals identity?
    - » Beliefs about change- Do people believe that they can perform the behaviour?

CASE STUDIES

Below, we outline five case studies drawn from The Behavioural Architects' work with a number of different clients- from charities and governmental institutions to financial services and utilities providers- to illustrate how each of the two models can be applied.

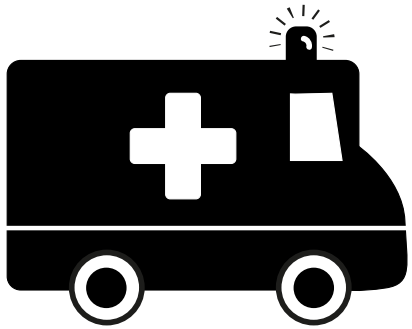
Part A: Applying the COM-B model:

01 **St John Ambulance: Steering bystander action in first aid situations**
- Identifying opportunities to encourage and measure the likelihood of helping behaviours

Behavioural challenge:

St John Ambulance (SJA)- a national first aid charity- wanted to develop their understanding of how to encourage bystanders to step forward and help in situations where someone requires first aid. They asked us to:

1. Define the behavioural challenges - and associated opportunities- for getting bystander to step forwards and help
2. Design survey questions that would measure people's propensity to assist in first aid situation.



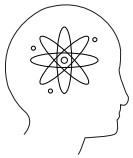
St John Ambulance

Applying the COM-B model:

Following a thorough review of international evidence and behavioural analysis to define the key behavioural challenges, The Behavioural Architects applied the COM-B model to design questions to measure the prevalence and strength of each challenge in the UK context. This would be important for creating more effective interventions, and to give SJA a benchmark which over time they would be able to use to measure the impact of any SJA interventions on people's propensity to take positive action.

The COM-B model offered both a comprehensive framework for measuring how likely it was that someone might offer assistance in a first aid situation, as well as providing a defined structure for soliciting information from people. The survey questions all structured within the COM-B model took the form of a questionnaire to be directed to SJA's existing network.

Below, we take each of the three COM-B model components one by one, outlining some of the key questions we identified which could be useful to address in SJA's questionnaire about helping in a first aid situation:



Capability:

Physical capability to help could refer to:

- Having access to the necessary equipment, such as a blanket or defibrillator.
- Having the necessary physical skills and abilities, such as being able support someone to walk, remove an airway obstruction, apply compression to stop bleeding, or being capable of performing CPR chest compressions.

Psychological capability to help, meanwhile, could refer to:

- Having the knowledge or skills to know what first aid behaviours to perform in a certain situation, such as knowing how to put someone into the recovery position.
- Being emotionally ready and capable of performing those behaviours in a real-world emergency.

For example, to assess whether people possess the knowledge/skills to know what to do, we wanted to see if people could apply their knowledge instantly to a first aid scenario provided in the questionnaire so we could gain a more objective measure of their readiness as opposed to the more traditional approach of asking people subjectively how competent and prepared they judged themselves to be. Below are two examples of questions to more objectively measure this knowledge:

> **Q:** *What should you do if you see someone collapse in front of you and clutch their chest? Please explain what you should do step-by-step.*
>
> **Q:** *What would you do upon finding someone who was faint, dizzy, disoriented and very pale? How would you look after them?*

Opportunity:

Physical opportunity to help could depend upon:

a) The individual being in the right place at the right time to witness and help with the situation. This means that people who spend a large part of their day in places with high footfall and who are around other people for a large part of their day are statistically far more likely to encounter a first aid situation. Someone who lives alone and spends most of their day at home in the house will have few opportunities to help.

For example, this might be assessed by asking people:

How much of your day do you typically spend around or near other people outside the home?

- *< 1hr, < 4 hrs, 8 hrs +*

Social opportunity to help could depend upon:

b) The other people present at the scene, both in terms of who they are and how many of them there are.

c) The social norms of how other people are behaving and whether helping behaviours are socially accepted or expected.

For example, in the questionnaire, social opportunity could be assessed by gauging how strong the bystander effect was likely to have been in a previously witnessed first aid situation:

Q: *How many other bystanders/people were present at the scene?*
0; 1; 2-3; 4-10; 11-30; 30+

Q: *Out of those people, how many did you know personally?*
0; 1; 2-3; 4-10; 11-30; 30+

Q: *Did you feel like the other people present would have supported you in providing first aid to the casualty?*
Yes / No / Not sure (Give details, if possible):

Motivation:

Motivation could be influenced by four different areas:

Automatic motivation to help could be influenced by a person's:
a) Emotional response. There is likely to be a stronger emotional 'pull' to help some people more than others, notably a friend or relative.

b) Habitual response to the situation. If the person is professionally trained or conditioned to help others, for example medical professionals, then they may be automatically inclined to intervene.

Reflective motivation, meanwhile, could be influenced by a person's:
c) Desire to help in that particular situation. If someone considers it their moral or ethical duty to help, for example, then their reflective motivation will typically be higher.

d) Fear of failing and repercussions if they 'get it wrong'. For example, someone may decide that they do not want to help due to fear of injuring the casualty further.

Looking at how to assess these four areas in the questionnaire, people's automatic emotional drive might have been expressed in previously witnessed first aid situation, so a question such as the one below could be included:

Q: *What was your relationship to the casualty?*
Stranger; Friend; Family member; Partner; Colleague; Other (Please state)

Q: *Did you have anything in common with the casualty?*
Yes (Please give details) / No

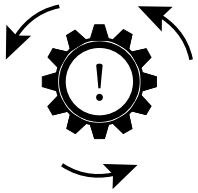
To assess reflective types of motivation such as moral duty or fear of failing, potential questions could be:

Q: *Have you ever witnessed a situation where you thought someone may have required first aid?*
Yes/No

Q: *Did you intervene or try to help?*
Yes/No

If yes, tick any which you feel applied to this situation:
- *I believe it's my responsibility to help others wherever I can*

If no, tick any which you feel applied to this situation:
- *I was worried about getting it wrong*
- *I've been in a similar situation before and had a bad experience helping*



Impact:

These types of questions, collated together into a single questionnaire, will enable SJA to effectively measure the extent to which an individual has sufficient levels of each component- capability, opportunity and motivation- in order to step forward and help in a first aid situation. It's a difficult type of behaviour to measure and assess, but by asking questions in these three areas, they have a more objective and structured approach for measuring people's propensity to help.

They are also considering using the new questionnaire longitudinally to measure if propensity to help changes over time, especially after specific initiatives- such as new training inputs and campaigns- by SJA to tackle the challenges to helping behaviours that we identified initially.

SJA is now using these recommendations to develop and shape their overall strategy, communications and training approaches.

02 **Sport England - Designing survey questions to best measure sport & physical activity habits and behaviour change**

Behavioural Challenge:

Sport England wanted to understand how they might better measure sport and physical activity habits and changes in these behaviours. They asked The Behavioural Architects to review potential survey measurement questions which could be included in their nationwide survey – the Active Lives survey. The survey is their principal tool for tracking the physical activity trends of the nation.

Part of our brief asked us to design new survey questions to specifically measure:

1. The degrees of intention and readiness amongst the less/non-active to take part in sport and/or do more physical activity
2. What triggers the take-up of sport and physical activity and, conversely, what triggers a lapse in behaviour?

SPORT ENGLAND

Although the existing version of the survey comprehensively tracked the types of physical activity, frequency, lapses and other information, it lacked an evidence-based approach for identifying what might be driving someone to exercise, and what could be preventing uptake or sustained physical activity. Without this information, it was difficult for Sport England to diagnose barriers to activity at a national level and develop strategies to address them.

Applying the COM-B model:

We recommended that Sport England develop survey questions structured around the COM-B model. By specifically measuring to what extent people were capable of doing sport or physical exercise, had sufficient opportunity to and had enough motivation to exercise more, Sport England would be able to better identify the key triggers and barriers affecting people's propensity to be active or play sport. These insights could then be used by Sport England and its nationwide partners to overcome key barriers and help trigger active behaviour among different target audiences.

Assessing capability and opportunity for physical activity and sport: To assess capability and opportunity we developed the two questions below, including in the question simple examples of what might help or hinder people.

Q: *To what extent do you agree or disagree with these statements? (Rating scale of Strongly Agree to Disagree)*

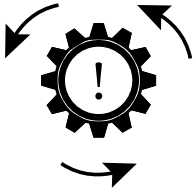
- *I feel that I have the ability to be physically active (Ability includes physical ability and confidence)*
- *I feel that I have the opportunity to be physically active (Opportunity includes things such as having somewhere to do it, being able to afford it, having the right kit, support from family, someone to take part with etc.)*

Assessing motivation for physical activity or sport: To measure motivation we took a slightly different interpretation than the definitions that the COM-B model uses and drew on the established concepts of intrinsic and extrinsic motivation to exercise.

We incorporated questions from the already established BREQ-2 questionnaire (Behavioral Regulation in Exercise Questionnaire version 2) which identifies what type of motivation might be driving people to exercise. The text in box brackets is added here for explanation.

Q: *Thinking about exercise in general, how much do you agree or disagree with these statements?*

- *I find exercise enjoyable and satisfying [engaging in exercise for fun, pleasure, enjoyment and general satisfaction]*
- *It's important to me to exercise regularly [engaging in exercise due to personal values and goals]*
- *I feel guilty when I don't exercise [engaging in exercise to avoid guilt and shame, to boost ego and self-worth]*
- *I exercise because I don't want to disappoint other people [engaging in exercise only to meet external pressures e.g. from family, friends or sources of authority]*



Impact:

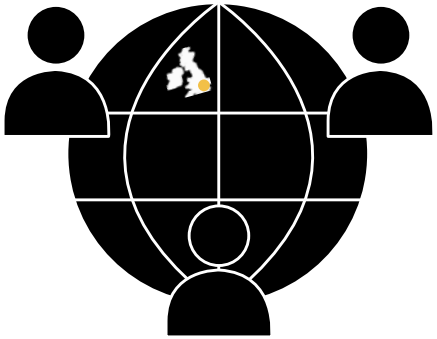
Our recommendations for questions tracking people's sport and physical activity, using the above COM-B model structure, have been included in Sport England's Active Lives Survey now since 2016. This has enabled the organisation to better understand participation patterns and identify different clusters of people and their drivers of behaviour so they can work towards Sport England's mission to get more people active and reduce health inequalities.

03 London Sport - Developing a Behavioural Segmentation of Less Active Londoners

Behavioural challenge:

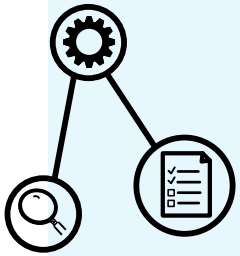
A London-wide sports institution wanted to improve the activity levels of less physically active Londoners and help them do more exercise and sport. Specifically, their target is to make London the most physically active city in the world; with a key target being to get 1m more Londoners more active by 2020.

They asked us to develop a segmentation of less active Londoners based on people's existing behaviours - rather than traditional demographics - in order to help them to understand the barriers and opportunities to people taking up (more) sport/ physical activity, and ultimately how they could drive behaviour change of London's diverse population. Less active Londoners are a diverse group and may sit at polar opposites in many areas from their general outlook on life to level of community engagement. Demographics do not neatly align with these differences justifying an alternative approach.



Applying the COM-B model:

Overlaying the COM-B model helped us to first shape hypotheses and the design of our qualitative research with the target audience, exploring each of the three main components in the model via a mixed methodology which included observation, online blogging and diarising current behaviour, behavioural disruption to do a new active behaviour, structured interviewing and ethnography.
Second, the model guided us in making a behavioural segmentation, by allowing us to more rigorously diagnose the barriers for each audience group, including the underlying and contextual factors affecting the different kinds of motivation that we found.

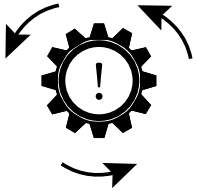


We identified four different segments, highlighting where each segment was lacking a particular component(s) of the model:

- **Anxious avoiders**- this group characteristically tended to lack necessary **capabilities**, such as physical, emotional and practical skills, as well as a psychological fear of failure or judgement
- **All or nothing**- this group had a black and white view of being active (or not) and perceived that they simply did not have the right **opportunities** to do 'proper exercise'- exercise to the degree they felt they had to do- given other demands on their life such as work and family. They also tended to lack social reference points (social opportunity) for how sufficient exercise could be effectively integrated in their lives.

- **Integrators**- this group again felt they lacked the right **opportunities** to exercise, but in the sense that they rejected more structured activity (eg club-based or classes) as unavailable or too inflexible for their busy lifestyles, and while were open to building exercise into their existing routine, such as walking to work, could find more integrated activity was not convenient or efficient enough to do regularly.
- **Casual hobbyists**- this group was lacking in both **opportunities** and **motivation**. They often felt they did not know like-minded people to take up specific sport (esp. for those who enjoyed playing in teams) or lacked a nearby facility. Like the all or nothing group, they did not consider less structured forms of activity to 'count' as worthwhile exercise, which in turn limited their motivation.

With this segmentation at hand, ideas for opportunities to help people in each segment do more exercise flowed quite naturally. For example, for the 'All or nothing' group, we suggested more flexible gym memberships and communications making clear that other forms of exercise still 'counted'- e.g. highlighting calories burnt or the step count for common tube journeys where walking is actually quicker- to overcome physical opportunity barriers which were fuelling their black and white mindset.



Impact:

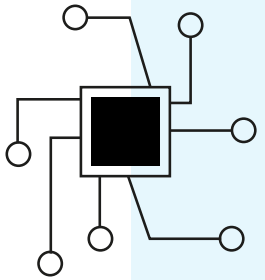
The thought-starters for each segment are now being used to inform the strategy, marcomms and work with a broad range of the client's partners, all aimed at meeting the client's target of 1 million Londoners more active by 2020!

Part B: Applying the B=MAT model

01 **Driving adoption and engagement of new in-home technology**

Behavioural challenge:

The Behavioural Architects worked with a utilities provider to better understand how they might encourage households to install and engage with new, in-home technology designed to track household behaviours and help people reduce wastage and save money.



Applying the B-MAT model:

The B=MAT model offered a simple framework to help our client understand the critical components of this challenge. And, with its focus on how to identify and build the necessary triggers to enable a desired behaviour it provided us with a structure to pin actionable solutions against, helping us work out how to steer customer behaviour using the tool most easily available to the client- their customer communications.

First, we conducted research with the client's customers via a 10-day online research platform followed by in-depth interviews with them. We engaged with a variety of households, from those with the technology already installed, to those considering it and those less convinced.

We then analysed our findings using the B=MAT model, identifying what might be driving or hindering motivation to install and use the technology, what might influence a household's immediate ability to install and what the triggers might be to both install and ensure households are engaging with the technology and making the most of it.

- **Motivation:** Here we found that although the benefits of the technology are well known, they aren't always enough to prompt adoption. The gains were apparent to households but not enough of a draw for many.

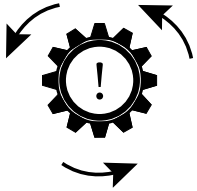
- **Ability:** Within this component, time and physical and mental effort as well as potential disruption to existing routines to get the technology installed, were typically significant factors for customers. For many there was just too much friction- needing to stay at home for half a day to let in the installation engineer or too complex and confusing a booking process. In addition, customers often lacked the ability and know-how to use the technology once it had been installed.

- **Triggers:** There were few 'signals' or in-context cues to remind customers to get the technology installed. In the home, reminders are usually out of sight, bills come only periodically, and renewal is only an annual event. Second, trigger types in the form of 'sparks' were also lacking- customers could see no immediate or attractive benefit to motivate them to arrange an installation and were more likely to put it off to a later date.

With this analysis and understanding in hand, we worked with the client to identify how to break down some of these barriers, more clearly highlight the benefits of the technology, facilitate installation so it was easier and less confusing, but also ensure they were reminded about the technology at more opportune times when the benefits and advantages of it were more salient.

We helped them craft these comms, to be timely, appeal to people's motivations and build ability by making it feel easier to get the technology installed. We also helped the client build more general understanding for how to apply the B=MAT model so that they could use it for other business challenges.

At its heart B=MAT helped the client re-think how they could tackle and solve this type of behavioural challenge by structuring communication strategies against the model.



Impact:

Our B=MAT inspired recommendations have shaped the client's communications strategy including leveraging key triggers across the customer lifecycle, testing different behavioural science inspired messaging strategies to drive up motivation and eliminating key friction points within the customer booking journey.

02 **Encouraging customers to increase their digital engagement with a financial services provider**

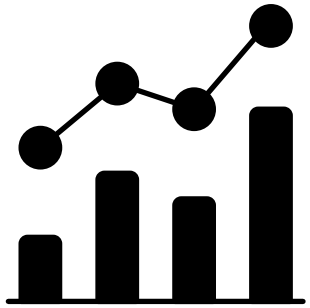
Behavioural challenge:

Our client, a global financial services provider, had identified a large number of customers who were disengaged with their digital services e.g. had never enrolled or were no longer engaged. Our client wanted more customers to engage with their digital services to drive down calls to call centres.

Our challenge was to understand why these customers were not engaging with the digital services offered by our client i.e. the triggers, barriers and mindsets behind this behaviour, to unlock ways to drive digital enrolment and engagement.

Applying the B=MAT model:

After delving into our client's existing data and insights, we developed a set of working behavioural hypotheses informed by the B=MAT model, focusing on specific motivations, abilities and triggers (or lack of them) behind non-digital behaviours. For example, the client suspected that customer concern over the security of their personal information stored on the app may be a barrier to digital engagement. Within the model, this would be classified as a motivational barrier driven by fear. People may also perceive that it's faster and easier to call to solve their problem, meaning that they have reduced mental bandwidth to explore other solutions- a factor limiting their ability. Customers may also have an existing habit or routine to engage with the client using means other than a digital channel, again limiting their ability to engage.



We tested these hypotheses via research with non-digital customers (who have never enrolled or are no longer active) involving online self-ethnography over 10 days to explore behaviours and mindsets in depth and face-to-face immersions with selected customers to deepen understanding and bring to life their mindsets.

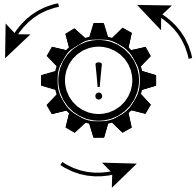
We discovered that, contrary to our client's expectations, **ability** was not the key barrier to engagement for the majority of customers. Instead, customers are generally pretty tech savvy, actively engaged digitally, with many online routines and habits and did see the benefits of using technology to manage their daily lives.

What was significant was people's lack of **motivation** to engage. Many non-digital customers felt that the client's existing digital services were rooted purely in simple transactional tasks, which hindered any deeper engagement, for example, in solving problems. Instead, customers often reverted to using the client's call centre. Others had established non-digital routines to engage with the client's services, so saw no need to digitally engage any further, or needed additional services so rarely that they forgot they were there or did not see the benefit in enrolling for something they used so rarely.

Ability was a factor for one subset of customers. We discovered that less tech proficient customers can often fall at the first hurdle and give up after experiencing problems during the enrollment process. For some, security fears were a motivational barrier too, preventing greater engagement with digital services.

To drive digital adoption and engagement, we made eight different recommendations based on developing potential new triggers, including:

- **Developing 'spark'-type triggers to build motivation:** We suggested evolving the user experience beyond simple tasks, identifying critical opportunities to communicate with the customer, to build motivation and help customers realise the benefits of engaging digitally.
- **Developing 'facilitator'-type triggers to make enrolment easier:** We also suggested streamlining and simplify the enrolment process to reduce dropouts by those who are less confident or accustomed to using digital services.



Impact:

The client has used the insights and recommendations to develop a new data mining and communications strategy to better identify and segment targets for digital adoption. In addition, they shared the findings from the study with teams working on other digital initiatives (enrollment, paperless, online banking, marketing, and more). Among other things, the study provided these teams with a strong foundational base of knowledge that is helping to inform the work they do.

FURTHER READING

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- Michie S, van Stralen MM, West R (2011). The Behaviour Change Wheel: a new method for characterizing and designing behaviour change interventions. Implementation Science, 6(1): 42

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Crawford Hollingworth is co-Founder of The Behavioural Architects, which he launched in 2011 with co-Founders Sian Davies and Sarah Davies. He was also founder of HeadlightVision in London and New York, a behavioural trends research consultancy. HeadlightVision was acquired by WPP in 2003. He has written and spoken widely on the subject of behavioural economics for various institutions and publications, including the Market Research Society, Marketing Society, Market Leader, Aura, AQR, London Business School and Impact magazine. Crawford is a Fellow of The Marketing Society and Royal Society of Arts.

Liz Barker is Global Head of BE Intelligence & Networks at The Behavioural Architects, advancing the application of behavioural science by bridging the worlds of academia and business. Her background is in Economics, particularly the application of behavioural economics across a wide range of fields, from global business and finance to international development. Liz has a BA and MSc in Economics from Cambridge and Oxford.

The Behavioural Architects

The Behavioural Architects (TBA) is an award-winning global insight, research and consultancy business with behavioural science at its core. It was founded in 2011 by Crawford Hollingworth, Sian Davies and Sarah Davies.

The company was one of the first agencies built around the new insights coming from the behavioural sciences. This new thinking has inspired them to develop powerful frameworks that fuel deeper understanding of consumer behaviour and behaviour change.
TBA has offices in London, Oxford, Sydney, Melbourne, Shanghai and New York and has worked with many global corporations, NGOs and governments, reinvigorating traditional research methodologies alongside pioneering new ones. Their aim is to make behavioural insights both accessible and actionable for clients.

The Behavioural Architects invests heavily in its core intelligence team dedicated to supporting its global teams, keeping them up to speed with developments in the behavioural science field; from both the academic arena and among top practitioners.

In 2019 TBA won Best Presentation at the Market Research Society's (MRS) Annual Conference Awards and ESOMAR's Best Global Paper, as well as being a finalist for AURA's 2019 Award for Most Inspiring Agency Speaker. Previous awards include winning the AQR Prosper Riley-Smith Qualitative Excellence Award in 2018, the highly competitive MRS Best Place to Work in 2015 and MRS Best New Agency in 2013.

For more information, please visit www.thebearchitects.com

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