

# THE SCIENCE OF BEHAVIOUR CHANGE

By Colin Strong and Tamara Ansons | December 2020

**IPSOS  
VIEWS**

**GAME CHANGERS**





# THE RELEVANCE OF BEHAVIOUR CHANGE TODAY

Governments, businesses and individuals are all interested in behaviour change. It is relevant to all parties, for a range of different reasons, and has become increasingly important as the familiar methods of changing behaviour have been challenged. Certain governments are typically less willing to introduce legislation to curb individual behaviour, while the traditional levers of influence for brands, such as TV advertising, have weakened as media channels have proliferated.

At the same time, there is an increasing need to navigate change as we face significant challenges from trends such as climate change, digitisation, ageing populations, mass migration, and now, COVID-19.

While the ultimate goal of many organisations inevitably relies on some form of behaviour change, it is only relatively recently that this has started to become a discipline in its own right. This document sets out Ipsos' approach, providing an introduction to the principles and practice of tackling a behaviour change challenge.



## A NEW WAY OF THINKING

In a predictable external environment, we learn ways to navigate the world and then relax, confident in the knowledge that the habits we have established in this context will serve us well. Simply put, if I have already worked out what brand of cereal bar I like, then I don't need to have an internal debate each time I go to buy one. This way, my capacity is freed up for the more unexpected encounters in my environment. As Obama famously explained why he only wears grey or blue, "I don't want to make decisions about what I'm eating or wearing because I have too many other decisions to make".

The difficulty comes when we enter a period of significant change: we have less of an opportunity to master an environment that is rapidly changing. So, how we look to understand consumer behaviour today must account for this different dynamic.

Behavioural science has traditionally focused on the way automatic mechanisms underpin behaviour. Our behaviour can, in theory, be "nudged" slightly in one direction or another, or we can build habits that free us up for other things. But, in an unpredictable environment, this way of thinking has much less value. Even if new automatic and less considered behaviours are built, how well-equipped will they be to deal with a changing environment? It is clear that what might have worked in yesterday's more stable environment will not work so well today.

The changing nature of our environment has meant that people are necessarily more proactive as they engage with the world around them. If the fundamentals of the world are stable and predictable, we can act in ways that are routinised and habitual. But once this certainty has eroded, we must more actively engage with our environment.

To this end, we now need to focus less on the mechanisms that are more automatic in nature (e.g. system 1, nudges, habit). Although they still have their place, they are not always sufficient to fully understand drivers and patterns of human behaviour. This is causing the discipline of behaviour change to rapidly emerge as a leading way to "diagnose" behaviour and then offer a flexible framework of intervention activities to address it.

In this way, behaviour change is adopting a much more holistic perspective of human behaviour than traditional, more automaticity-based models.

---

**"The changing nature of our environment has made people less reliant on routine as they engage with the world around them."**




## FROM THEORIES TO SYSTEMS

If we can first understand the behavioural dimensions that shape behaviour then we already have a very effective means for changing behaviour as we can design interventions (such as marketing communications) with these dimensions in mind. For example, if littering is underpinned by the dimension of social norms (we assume that everyone else is littering) then we need to address this social norm as part of our intervention to change this behaviour. This could involve placing signs (a form of intervention) to show that most other people do not litter, thereby correcting the belief about the normative behaviour.

There are a huge number of possible theories that we can draw on to help identify behavioural dimensions, meaning more targeted interventions can be selected, refined and tailored. The challenge is knowing which theory to choose, as illustrated by a recent book which identified over 80 possible theories of behaviour change.<sup>1</sup> The difficulty is that selecting the one most suited to a particular challenge requires wide knowledge and expertise that is not always

readily accessible. In addition, and problematically for the practitioner, theories that help us understand behaviours are often silent about which interventions to prescribe to actually change behaviour. While understanding behaviour is important, we clearly need to be able to then help people to enact behaviour change.

To overcome these challenges, we must move away from *theories* of behaviour change towards *systems*. Firstly, systems have the advantage of integrating the huge range of different theories to avoid the issues we have just mentioned. This means we can then use a single framework to understand the levers of behaviour, confident that it will offer a comprehensive view across a wide range of issues. Secondly, systems of behaviour change point to ways in which the desired outcome behaviours can be achieved. This is significant as many approaches are available for diagnosing behaviour, but far fewer offer guidance on how to link this through to designing interventions to change behaviour.



**“Problematically for the practitioner, theories are often silent about which interventions to prescribe to actually change behaviour.”**

## THE BEHAVIOUR CHANGE WHEEL

In a review of the academic and practitioner literature on behaviour change we find that one system offers the best response to the challenges we have identified: The Behaviour Change Wheel (BCW), developed by Professor Susan Michie and colleagues.<sup>2</sup> It is comprehensive, theory-based, evidence-backed and links the problem to intervention design.

At the heart of the BCW is the system of behaviour called “COM-B”. This means that for any behaviour change (B) to take place, people need to have Capability, Opportunity and Motivation:

1. **Capability** involves psychological dimensions (e.g. the knowledge and skill to perform an action) as well as physical dimensions (strength and stamina)
2. **Opportunity** includes both social (e.g. norms) and physical (e.g. resources) enablers
3. **Motivation** includes “reflective” (e.g. conscious decision-making) and “automatic” (e.g. emotion and habit) processes.

Beneath these are fourteen sub-dimensions or “domains”, including knowledge, skills, memory, emotion and social influences, among others. The COM-B system is linked to a further layer of nine intervention functions including education, persuasion, training and modelling. Finally, these intervention functions are mapped against policy categories, including communication, marketing and guidelines.

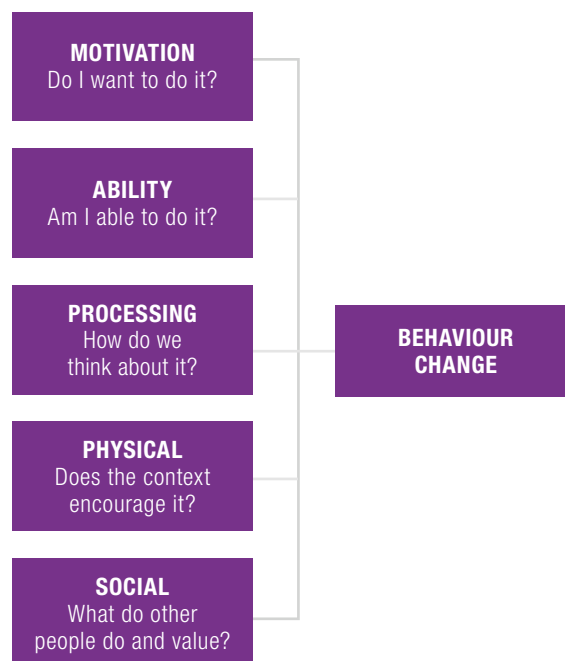
While the BCW has clear value, there are two main ways in which the system could be optimised for a range of more commercial applications (the primary focus for BCW is public health):

1. **Identifying the sub-dimensions.** The domains can be tricky to spot in behaviour, making it difficult to establish what is sitting underneath.
2. **The intervention guidance can be too general,** raising challenges for implementation.

## INTRODUCING MAPPS

Ipsos has created a behaviour change system called MAPPS. There are a number of stages to MAPPS, but fundamentally is a model that sets out the key dimensions that are important for behaviour change:

**Figure 2** MAPPS behaviour change framework



Source: Ipsos

In much the same way as COM-B, this model helps us to ensure we are covering critical behavioural dimensions. The key difference is the presence of additional ‘Social’ and ‘Processing’ aspects. These reflect the importance of social norms and cultural values as well as the adaptive processing element of behaviour: the degree to which we slow down to consider something or execute it automatically.

There is further granularity to the MAPPS model, as set out in figure 3.

**Figure 3** The meaning of MAPPS

MAPPS DIMENSION	MAPPS CATEGORY	WHAT A BARRIER LOOKS LIKE
Motivation	Outcome expectations	"I don't think it will work"
	Emotion	"I don't feel like doing it"
	Internalisation	"I don't want to do it"
	Identity	"I'm not that kind of person"
	Self-efficacy	"I don't feel able to do it"
Ability	Capability	"I don't have the skills to do it"
	Routines	"It's not part of what I usually do"
Processing	Decision forces	"It doesn't fit into how I think about it"
Physical	Environmental factors	"My environment doesn't support it"
Social	Social norms	"I don't think others expect me to do it"
	Cultural norms	"I don't see it as part of how I live my life"

Source: Ipsos

The MAPPS framework is at the heart of our behaviour change system. But to get the full benefit, and to move from problem through to solution, it is useful to understand the way in which it operates. For this, we follow a "Triple D" process:

- **Diagnosis:** Use MAPPS to identify and decode the barriers.
- **Design:** Pivot from understanding the behaviour to development of interventions.
- **Deliver:** A smaller number of interventions are prioritised to for prototype development and testing.

## DIAGNOSE

One of the most common errors in behaviour change work is jumping to assertions about which interventions are needed before making a proper diagnosis. Prior to any attempt to develop interventions, a rigorous understanding of the mechanisms underlying behaviour is needed.

For an accurate diagnosis to take place, it is necessary to identify the role of the MAPPS dimensions in facilitating current behaviour. This stage is very common in market research projects which specify a problem and conduct research to inform understanding. As such, it is helpful to use the MAPPS framework to design survey questions, develop topic guides, or curate existing materials.



## DESIGN

Each of the dimensions of the MAPPS model has implications for intervention activity. The key intervention design principles are:

- **Understanding:** Build knowledge, help people see relevance and importance.
- **Feedback:** Provide positive or negative guidance, direction, or outcome expectancies.
- **Planning:** Develop and maintain intentions or skills needed to perform a behaviour.

- **Restructure:** Change the environment to enhance or remove influences.
- **Connect:** Allow connections to be formed or make them available as informational sources.

The MAPPS system sets out the way in which the dimensions that we have diagnosed that shape behaviour relate to design principles that can be used to develop interventions. Using this approach, we can tackle behaviour change challenges in ways that are more likely to succeed as they are directly related to an effective diagnosis of the issues.



## CASE STUDY: MANAGING SAFE RE-ENGAGEMENT DURING COVID-19

Public and private sector organisations alike are trying to understand how to encourage people to safely engage in the economy and society during COVID-19. Ipsos conducted a 27-country study applying MAPPS in order to find ways to enhance comfort with re-engagement to facilitate behaviour change.

The survey found that, at the time, six in 10 were comfortable resuming 'normal' activities. The MAPPS questions were analysed with this comfort measure as an outcome variable.

This showed that the most important characteristics for encouraging re-engagement were:

- **Managing outcome expectations:** Help people to understand and navigate risk in a safe way.
- **Self-efficacy:** Help people to feel confident about their ability to manage risk.
- **Routines:** Help people develop new patterns of behaviour.

The table below shows the way in which the dimensions underpinning re-engagement activity led directly through to a set of intervention designs. These are now being reviewed by teams across Ipsos in collaboration with governments and NGOs.

**Figure 5** Designing interventions for re-engagement

<b>Outcome expectations</b>	<b>Feedback:</b> Help people see the impact of their actions on risk mitigations.	<b>Feedback:</b> Assistants at shop exits offering sanitiser and guidance on applying it.
<b>Internalisation</b>	<b>Understanding:</b> Helping to build a sense of mastery by building knowledge.	<b>Understanding:</b> Provide opportunities for people to try different protective equipment to learn how they feel and work.
	<b>Feedback:</b> Providing guidance on the feeling of mastery through feedback received.	<b>Feedback:</b> Provide audio reminders as people move through a retail store, such as to maintain social distance.
	<b>Connect:</b> Looking to others to build a sense of mastery.	<b>Connect:</b> A collective of hospitality workers can share ways of operating while maintaining social distance.
<b>Routines</b>	<b>Feedback:</b> Provide guidance on behaviour to correct or maintain it.	<b>Feedback:</b> Provide mnemonics for people to remember simple guidance when they are out.
	<b>Planning:</b> Developing and maintaining intentions or new skills to support a behaviour.	<b>Planning:</b> A leaflet that provides steps and equipment needed when planning shopping trips safely.

Source: Ipsos



## DELIVER

There is an important difference between the purpose of an intervention and its delivery mechanism. We may recognise that there is a need to build knowledge using the intervention design principles of 'Understanding' and 'Feedback', but these could be delivered in a number of different ways, for example through a digital app, advertising, or outbound calling.

Marketers typically have a huge range of delivery mechanisms available to them. The best known is the TV commercial but there are many others including Point of Sale materials, the use of social media influencers, sponsorship and partnership deals, changes to packaging, and even changes to the product itself.

The final stage of the programme involves prioritising the different interventions, typically aided by plotting the ideas along two axes: the degree of impact and the ease of implementation.

From here, it is possible to formulate more detailed design guidance and develop a testing schedule, which could be done through randomised control trials or longitudinal testing using online communities.

Conducting the research in this clear and systematic way offers a 'systems thinking' approach to behaviour change. Just as a doctor would not decide on the treatment or its format before a proper diagnosis and assessment of the best way forward, we need to follow each stage of diagnose, design and deliver in order to see the results of effective and enduring behaviour change.



# BEHAVIOUR CHANGE: FROM THEORY TO PRACTICE

Helping people to navigate ways to change behaviour to reach positive outcomes is one of the world's most significant challenges – for governments and NGOs, but also for brands, employees and all of us as individuals. Traditional notions of human behaviour suggest that we are largely passive, receptive to changing incentives, with our behaviour being 'shaped' by more automatic processes. While this may be the case for incremental changes in environments which are stable and predictable, it is becoming clear that we need holistic approaches as people need to navigate a fundamentally changing environment.

The Ipsos approach is built on a body of work that has a track record in delivering not just minor and incremental behaviour change but more substantial change that is sustained over time. Market research has changed our world by offering a way for us to understand behaviour. By extension, MAPPS offers a bridge for us to cross the chasm between understanding and practice to deliver sustained behaviour change, linking accurate diagnosis to effective interventions.

As the world remains unpredictable and changeable, this behaviour change framework is likely to have many useful implications in the future.

---

**“MAPPS offers a bridge for us to cross the chasm between understanding and practice to deliver sustained behaviour change.”**

## APPLICATIONS

The research protocols set out in this paper can be applied to a number of situations and behaviour change challenges, but the main ones tend to be:

- Addressing a problematic behaviour (e.g. failing to recycle)
- Tackling something that is not being done enough (e.g. infrequent purchasing of cleaning materials)
- Establishing new required behaviour (e.g. using concentrates in fabric care)
- Seeking to maintain a new behaviour (e.g. maintaining fitness activity in lockdown)

Ipsos uses MAPPS for a wide range of public and commercial sector activities, including financial wellbeing, vaccination behaviour, cyber-security, recycling, public transport and cosmetics.

## REFERENCES

1. <http://www.behaviourchangetheories.com/>
2. <http://www.behaviourchangewheel.com/>





# THE SCIENCE OF BEHAVIOUR CHANGE

---

**Colin Strong** Head of Behavioural Science, Ipsos in the UK

**Tamara Ansons** Behaviour Science Lead, Ipsos in the UK

The **Ipsos Views** white papers are produced by the **Ipsos Knowledge Centre**.

[www.ipsos.com](http://www.ipsos.com)  
[@Ipsos](https://twitter.com/Ipsos)

GAME CHANGERS

