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Behavioural Insights for EU Policymaking

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Key takeaways:

- Designing policies with the assumption that human behaviour is rational can lead to suboptimal results. Far better is to resort to a more nuanced understanding of behaviour, based on empirical evidence of how people actually behave.
- Behavioural insights can be applied throughout the policy cycle. They can help define a policy problem by identifying underlying causes of relevant behaviours, and
- Arriving at specific, relevant behavioural insights may require original empirical work. First, the research question will need to be defined tightly, followed by the choice of methodology (often randomised controlled trials (RCTs), experiments or qualitative research).
- Ultimately, behavioural insights are another tool for empirically based policymaking, complementary to existing tools. But they are also unique in that they can shed light on how decisions are taken in policymaking.



Policymaking around the world has increased its attention to behavioural economics over the past decade. There is perhaps not one single cause for this, though there are a number of contributing factors. Disappointment with economics in the wake of the 2008 financial crisis, the publication of *Nudge* (Thaler and Sunstein, 2008), the subsequent appointment of its authors to top advisory positions in the US and UK government and the creation of the UK's Behavioural Insights Team all played a role. The European Union (EU) has also embraced behavioural economics, with its own approach to producing behavioural insights and embedding them in the EU policymaking process (Lourenço et al., 2016).

Behavioural *insights* are evidence-based conclusions about human behaviour in a given context. The behavioural *sciences* are all those disciplines that, through systematic observation and rigorous analysis, offer these insights. Most popular among them, in this behavioural turn in policymaking, is behavioural *economics*. This may have to do with the broader acceptance of economics in government circles. Psychology, which covers the same ground with a wider palette of methodological approaches, seems to have less policy appeal. As a result, it is sometimes branded as behavioural *science*. Anthropology, sociology, medicine, neuroscience and biology also contribute to our understanding of human behaviour.

This chapter outlines how behavioural insights can contribute to policy thinking generally and how they can be applied to the EU policymaking process specifically. They are not restricted to any particular policy area. As a general rule, wherever the effectiveness of a policy depends on human behaviour, behavioural insights will be relevant. Moreover, they are meant to complement – not compete with – other analyses. They simply contribute by adding a better understanding of behaviour. The chapter goes on to discuss the methodological options for arriving at these insights and what studies can be feasibly conducted to support EU policy.

Challenging the Assumption of Rationality

The best starting point for appreciating the contribution of behavioural insights is the assumption, explicit in economics and implicit in much of policy thinking, that human beings are rational. They maximise their well-being, or *utility* in the economics nomenclature, taking a number of variables into account and following a series of axioms. The assumption of rationality refers mainly to the outcome of decisions, not the process (i.e., a decision is considered rational if it maximises utility, regardless of how that decision was arrived at). Circumspect analysts might take this assumption with a grain of salt but will nevertheless adhere to it. It is useful for economic analysis.

However, as we know intuitively from observing our own behaviour and that of others, humans are far from rational. We exhibit consistent anomalies in our behaviour, oddities that cannot be properly explained by the assumption of rationality. These *biases and heuristics* have been identified through experimental studies and form the basis of behavioural economics (Kahneman and Tversky, 1979). They have been found to be consistent (i.e., they do not cancel each other out on aggregate) and widespread (i.e., the results have been replicated in different contexts). Formally recognising that we exhibit such biases and heuristics in our thinking invites further empirical exploration of how we actually behave.

The problem is that the literature is full of studies offering empirical evidence on behaviour. A quick search for cognitive biases on Wikipedia yields about 200 pages, from acquiescence



bias to the well-travelled road effect. This includes popular biases in behavioural economics, such a loss aversion (losses loom larger than gains), as well as established findings in social psychology, such as the fundamental attribution error (other people's behaviour is attributed to dispositional factors, our own to situational factors). In the face of such a myriad of findings, what broad, reliable and useful insights can we apply to policymaking?

System 1 and System 2

The answer to this question may vary across disciplines. However, the distinction between System 1 and System 2 thinking is particularly helpful as a summary ([Kahneman, 2011](#)). People exhibit two ways of thinking. One (System 1) is characterised by being automatic, unconscious and frequent. It is prey to cognitive biases and strikingly prevalent in our everyday lives, accounting for about 95% of our thinking according to some estimates ([Zaltman, 2003](#)). For example, all the routine activities we do in the morning before arriving to work are governed by System 1. System 2, on the other hand, is reflective, slow, self-aware and infrequent. Solving a problem at work may require System 2 thinking. It calls for more effort than System 1.

In System 1 thinking, we rely on mental structures, or schemas, that select and process incoming information. These filter our perception of reality. We match the schema against incoming stimuli – if it is a good match, we impose the schema to have greater control over what we experience ([Fiske and Taylor, 2013](#)). If, on our way to work, we are approached by a stranger, we will quickly resort to our existing stock of schemas to evaluate him or her. Depending on how they look, the schema of 'commuter' or 'vagrant' may apply. Our schema-driven reaction to them will be largely preprogrammed and follow a certain behavioural script.

System 2, on the other hand, involves a much more data-driven process. The different elements of the incoming stimulus are evaluated afresh, without preconceived notions. We are generally reluctant to think in that way – it requires greater effort, and we have limited cognitive resources. We may resort to this kind of thinking only when needed, e.g., when the situation is new and there are no schemas to draw upon, and indeed, the distinction may not necessarily be discrete. It might not be the case of one or the other, but rather of thinking along a continuum, from more schema-driven to more data-driven.

Policy Implications

Why does the distinction between System 1 and System 2 matter and how is it relevant to policymaking? Because the design of many a policy initiative is based on the assumption that citizens routinely use System 2, whereas in fact, they may be using System 1. Take disclosure statements or product labelling: these assume that consumers will read and process and understand the implications of what they are buying or agreeing to. In fact, they are more likely to apply the shortcuts offered by System 1. This may explain why some of these policies have failed to meet their objectives.

What are some of the implications of designing policies expecting System 1 reactions? For one, we must challenge the assumption that more information is better. It is not about having *more* information, but *better* information, presented in a way that makes it easier for people to make a good decision. People are complicated, error-prone humans and not mindless information processing machines. Also we should not assume much 'rational' behaviour – in fact, we should not assume behaviour at all. There is no grand theory of behaviour (à la rational choice



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theory). Rather, we should continuously rely on behavioural insights obtained by empirical observation.

The behavioural turn in policymaking has therefore two predominant characteristics. On the one hand, it is about applying a better understanding of the complexities of human behaviour into the policymaking process, rather than resorting to simplistic models. But it is also about systematically applying empirical

methods to achieve this fuller understanding (Lunn, 2014). In other words, the key is not to assume behaviour, but to test it. It is a fundamental inversion, from a deductive, top-down approach to understanding human behaviour to an inductive, bottom-up approach.

How to Apply Behavioural Insights to Policymaking

Having introduced behavioural insights, the question arises: how can these be applied to policymaking in practice? What are the real-life implications for policymakers and for researchers seeking to produce policy-relevant results? In theory, behavioural insights can be applied to policymaking in any number of ways. For example, they can enrich the way citizens' behaviour is discussed in policy debates, which is already a significant contribution. However, for explicative purposes, it is useful to see how they contribute to different stages of the policy cycle (Troussard and van Bavel, 2018).

Problem Definition

Often human behaviour will lie at the core of a policy problem. It might be, for example, that farmers are not adopting new technologies (even if it is in their best interest to do so) or that social media users are failing to distinguish advertising from user-generated content (which might not be in their best interest). In these cases, behavioural insights can help define the problem by identifying possible underlying causes of behaviour. The solution might include some kind of behavioural insight or might just require straightforward regulation or economic incentives.

In the case of farmers, it might be that new technology leads to greater productivity on average over a number of years but makes bad years particularly bad. The principle of loss aversion suggests that losses loom larger than gains of equivalent value (e.g., the joy of winning €20 is less than the pain of losing €20). Therefore, farmers may be overweighing these potential losses when deciding whether to adopt the new technology. Policymakers might consider this explanation, test it and propose remedies which seek to address farmers' loss aversion specifically. They could, for example, combine programmes incentivising the uptake of new technology with risk management tools (Dessart et al., 2019).



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Regarding social media users, they might be confused because advertisers are adept at concealing their products in user feeds. Ads no longer stand out and are disguised in posts that do not appear to be commercial (native advertising). Users who scroll down their user feeds in routine fashion are likely using their cognitively economical System 1 thinking, instead of their effortful System 2. This means that capturing users' attention and making them aware of the presence of advertising might require more sophisticated methods than simply informing them. Instead, regulatory action might be needed, such as updating the list of commercial practices that are explicitly prohibited (GfK Consortium, 2018).

Policy Design and Implementation

Behavioural insights can also be embedded in EU policy instruments. Take the case of energy labelling for electrical appliances, covered by an EU Regulation (European Union, 2017). A few years ago, technological advance in energy efficiency meant that some appliances reached energy efficiency levels of up to 'A+++' (previously the maximum rating was A). An experiment in a behavioural study showed that this scale was in fact suboptimal (London Economics, 2014). An 'A-to-G' scale, on the other hand, performed best among consumers, better than a numeric scale. The study also found that this kind of labelling was particularly important for products where energy efficiency was not the main concern for consumers.

Online gambling is another case in point. It became an important policy issue in Europe due to high levels of only gambling, the possible involvement of minors and indications of addictive behaviour. A behavioural study showed that trying to affect players' behaviour before they started playing was ineffective (Codagnone et al., 2014). Instead, measures needed to target players *while* they gambled, such as spending limits or alerts which interrupted the human-machine interaction. They were translated into principles to ensure the effective protection of consumers and were included in an EU Recommendation on on-line gambling (European Commission, 2014).

Policy initiatives that seek to influence behaviour through small changes to the environment in which people make a decision are *nudges* (Thaler and Sunstein, 2008). In the literature, these are often proposed as an alternative to more traditional approaches such as regulation, information provision or economic incentives. Depending on their jurisdiction, regional, national or supranational levels of governance will have different opportunities to nudge. In the case of the EU, these opportunities need to be sought out in collaboration with national and regional authorities.

An example of a highly effective nudge involves establishing the *default option*. The theory behind this is that, when presented with a choice, we are very likely to accept the default choice. This has been applied in areas such as pension plans and organ donation. If the default option is *not* to be enrolled in a private pensions plan or *not* to register as an organ donor, few people will. A simple change in the way the choice is presented, from opt-in to opt-out, has led to drastic increases in the number of people investing in a pension plan and registering as an organ donor.

Another very effective nudge is *simplification*. People have limited attention span and cognitive resources, especially in an age of information overload. Complexity creates confusion, increases costs and makes people reluctant to participate in important programmes (Sunstein, 2014). A very straightforward, often overlooked, nudge is to make programmes easy



Box 1: Applying behavioural insights at the European Commission

The European Commission has applied behavioural insights to a wide range of policy areas over the past 10 years. It began by recognising the power of default options in the Consumer Rights Directive in 2009, where it limited the use of prechecked boxes in consumer contracts. During that time, in a landmark case against Microsoft, the Commission relied on behavioural insights to arrive at a sensible solution for offering consumers a choice of Internet browser (the ‘ballot box’).

These initial applications gave way to a more systematic approach, which included setting up a framework contract for the provision of behavioural studies. Over 30 large-scale behavioural studies have been conducted under this framework contract. Results from these studies have been integrated in a number of policy developments, in areas such as energy labelling, online gambling, packaged retail and insurance-based investment products, online marketing to children, consumer vulnerability, transparency of online platforms and online terms and conditions.

Today, a behavioural approach is increasingly present in EU policymaking. For example, it is formally included in the better regulation guidelines and toolbox, for analysing the policy problem (Tool # 14), identifying policy options (Tool # 17) and assessing the impact on consumers (Tool # 32).¹ Informally, it is being incorporated into everyday policy discussions. This is partly not only because behavioural insights are appealing and make sense but also because the JRC has made a concerted effort to promote their application to policymaking (read more about the EU Policy Lab in [Chapter 13](#)). It routinely engages in dissemination activities, including a 2-day training course on behavioural insights offered to European Commission staff three times a year.

¹ https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox/better-regulation-toolbox_en, accessed 05.05.20.

to understand and navigate. This should bring large rewards. Simplification has been applied, for example, in standardised forms for information on retail investment products, mandated by an EU Regulation ([European Union, 2014](#)). It has also been shown effective in a RCT looking at official communications from the Danish government to businesses ([OECD, 2017](#)).

Social norms complete the podium of examples of effective nudges. The premise behind this nudge is that people like to feel part of the majority. Highlighting what ‘most people do’, therefore, will lead people to behave accordingly. The more specific the behaviour and the more proximal the reference group, the more powerful the information will be. This nudge was proved effective getting people to reuse their towels in hotels ([Goldstein et al., 2008](#)) but has since been successfully applied to a number of policy areas, such as ensuring the prompt payment of taxes and combating overprescription of antibiotics by doctors ([OECD, 2017](#)).

Producing Behavioural Evidence

Having explained how behavioural insights can be applied to policymaking, the chapter now takes a methodological turn. From a research point of view, what are the methodological options available for producing and testing behavioural insights? The method will depend on the research question. Tightly defining the research question makes the choice of method straightforward and also increases the chances of having a successful behavioural study. A bad research question cannot lead to a good study (see more on this in [Chapter 6](#)).



Defining a Good Research Question

A necessary first step in defining a good research question is specifying the behaviour of interest. For example, a study which aims to identify the ‘best way of communicating information about energy efficiency in a label’ is too vague. Is the purpose of the label to increase comprehension of information or to attract attention? Perhaps, the intention is to persuade consumers to choose the most energy-efficient option, in which case their purchasing behaviour would be of interest, and not their immediate reaction to the label.

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The way in which results are expected to feed into the policymaking process is also a factor when formulating the research question. For example, ‘why are minorities not motivated to apply to join the police force?’ might invite a qualitative study where all the nuances of people’s motivation are captured and described. But if results need to be immediately translated into policy remedies, a research question like ‘what measures would increase the number of applications by minorities to the police force?’ might be more appropriate. Notice here the presence of a measurable outcome (number of applications), inviting a quantitative analysis.

Methodological Options

In theory, a broad number of methodological approaches can be used to study behaviour. Following is a description of RCTs, experiments and qualitative research. Surveys are also a popular method and have been included in other accounts ([van Bavel et al., 2013](#)). But since they are a well-known method used across policymaking, they are not covered here.²

- *Randomised Controlled Trials*

In most countries where behavioural insights have taken hold, RCTs (or *field trials*) are the more popular method, as they offer demonstrable results from interventions in real-life settings among a sector of the population. However, policymaking at EU level has a number of characteristics that make lab and online *experiments* the method of choice. For one, there is the problem, mentioned earlier, that EU policy is often not at the front line of public service delivery. Public health and education, for example, are managed at the national or regional level in Europe. Implementing RCTs would therefore require collaboration with authorities at these levels of governance – feasible, but difficult.

Moreover, there is the problem of diversity. Unlike national or regional policies, EU policies have to be effective in 28 different member states. And results from RCTs are not necessarily transferable to other contexts ([Cartwright, 2007](#)). Interventions that work in Denmark might easily fail in Italy. Tackling this would imply running identical RCTs simultaneously in various countries and checking for differences. This is a tall order (which the JRC is nevertheless

²Also, surveys are not ideal for studying behaviour. They measure how people *talk* about behaviour (what they did or what they intend to do), but not actual behaviour. And they show what might correlate with this self-reported behaviour, but not necessarily what causes it.



attempting). Add to this the complication of running studies in a short time scale in order to dovetail with the policy cycle, and it becomes apparent that alternative methods need to be relied upon.

- *Experiments*

Experiments are run in a laboratory or online, where two or more groups of people are compared with each other. One group is exposed to an intervention presumed to have an effect on behaviour, the other not (the 'control group'). The groups' behaviour is then measured and compared with each other. If there is a difference, it is attributed to the intervention, as everything else was kept exactly the same for both groups. In this way, the experiment can identify the variables that affect behaviour, going beyond correlation and establishing causality.

Experiments usually involve small samples. A mathematical procedure (i.e., a 'power analysis') will help determine the right sample size for each study. Although a balance is usually sought according to a couple of key sociodemographic characteristics, such as age and gender, these samples are not fully representative of the general population. Also, depending on the number of participants per group, the behaviour of some subgroups may or may not be analysed separately. First and foremost, experiments seek to uncover the existence of underlying psychological mechanisms that affect human behaviour. To know whether these are widespread in different contexts, the experiment would need to be replicated.

For supporting EU policy, experiments are useful. They do not require coordination with national or regional authorities, they can be conducted in a timely fashion to coincide with the policy cycle and they can take place in a number of countries to check for differences. The European Commission has been relying on such experiments for the past 10 years, covering a broad range of areas, from marketing practices in social media to the circular economy to warning labels in tobacco packages. Most experiments have been part of studies outsourced externally, but some have been conducted in-house by the JRC.

- *Qualitative Research*

Apart from experiments, qualitative methods have also proven useful. These include in-depth interviews, focus groups and participant observation, among others. They are different to experiments in their approach and fulfil a different purpose. For one, they do not seek to test hypotheses, but rather generate them. Their findings are not 'objective' (i.e., the perspective of the researcher must always be taken into account) or statistically generalisable. However, they offer a nuanced understanding of the meaning people associate to their actions, which is invaluable to understand why they behave in a certain way.

For example, taxes can be seen by citizens as their contribution to a state that offers public services in return, or they can be seen as a burden imposed by a corrupt and inefficient state. People's behaviour regarding taxes will likely be affected accordingly. Therefore, an intervention to make people pay their taxes might work on some people, but not others. Uncovering meaning is important, but not easy. It requires a rigorous, reflective and systematic process. Good qualitative evidence is not anecdotal.



Qualitative findings are complementary to experimental methods. By providing a richer description of behaviour and what lies behind it, they can help identify the interventions an experiment should test. This is particularly relevant in emerging areas of research where not much is known, such as children's behaviour on social media or reasons for consumers' willingness to buy new instead of repairing. They can also follow-up on experimental results, providing explanations for unexpected or counterintuitive results.

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Mainstreaming Behavioural Insights

What does the future hold for behavioural insights in a large public body institution like the European Commission? For one, they will continue to face scepticism by some and enthusiastic support by others. Sceptics will need to be reassured that behavioural insights do not pretend to replace traditional policy analysis tools – rather, they seek to complement them. Supporters, on the other hand, will need reminding that not all problems require a behavioural approach. Some just need decisive action based on tried-and-tested approaches like incentives and regulations. Behavioural scientists should be very clear when they believe a behavioural approach *should not* be applied to a problem.

Second, behavioural insights need to be applied introspectively to the policymaking process itself. Policymakers are also of flesh and bone and subject to biases and heuristics themselves. Take optimism bias, for example. When planning projects, there is a tendency to believe everything will go well, on time and within budget. In reality, things tend to work out rather differently. Applying behavioural insights to policy necessarily implies being reflexive about how people in government think and act, both individually and as part of a group.

Finally, the objective of integrating behavioural insights in policymaking will end when we stop talking about them as something distinct. Ideally, the analysis of any policy problem should include a reflection on behaviour, just as we now systematically consider cost, impact on well-being and whether these are equally distributed (for example). The behavioural turn in policymaking will be complete once behavioural insights are mainstreamed in the policy debate, to the degree that we may look back in wonder that they ever deserved special mention at all.