

# Behavioural insights in poverty reduction policies

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## 1 Introduction

This *Policy Research Brief* presents some elements that should be carefully considered in the design of policies and programmes to overcome poverty, based on evidence from the field of behavioural economics.

A growing number of international experiences point to the fact that, in many situations, government policies and programmes suffer from compromised results and wasted resources due to an error that is entirely avoidable nowadays: the fundamental misunderstanding of how people—both those involved in the design and implementation of policies and programmes and, especially, their end users—perceive the individual components of these programmes and policies and make their decisions. Regarding policies geared towards overcoming poverty, such a misunderstanding can have disastrous results when considering the lost opportunities for the promotion of the welfare and autonomy of potential beneficiaries.

This article comprises four further sections. The first addresses the advent of the multidisciplinary field of behavioural economics, from the questioning of the rational agent model. The second focuses on some of the implications of the concepts of behavioural economics in the analysis of public policies, and the experience of countries and international organisations in the application of behavioural insights in their activities. The third tackles social policies in more detail, aided by elements from the literature in the field. Finally, the last section considers possible applications of behavioural economics in the design of programmes for overcoming poverty.

## 2 The emergence of behavioural economics

When implementing public policies—among them, social policies, which are the object of this paper—the State often seeks to change the behaviour of individual or collective agents through traditional instruments: restricting or incentivising certain behaviours and providing information.

The agent model underlying these traditional instruments is that of the rational agent—endowed with complete and consistent preferences, with a utility-maximising behaviour and fully able to process information. Agents endowed with complete knowledge are also frequently assumed.<sup>2</sup> When complete knowledge is not considered as a hypothesis, the offer of information is often the instrument used by public policies.

This model has been contested for many decades, such as in the seminal work by Simon (1955). Empirical evidence that challenged the assumptions of the rational agent model started to configure a new multidisciplinary field—behavioural economics, or applied behavioural sciences, as many of its main proponents prefer. This field had its inception in the pioneering works by psychologists Amos Tversky and Daniel Kahneman in the 1970s (which eventually led to Kahneman being awarded the Nobel Prize for Economics in 2002), and by economist Richard Thaler. It is fundamentally based on empirical evidence (whenever possible, from controlled experiments) to describe the way in which human beings make decisions.

The emergence of behavioural economics, therefore, derives from the questioning of the rational agent model and its assumptions of complete rationality. Instead of being driven by an excessively simplified *a priori* model, behavioural economics is based on an empirical examination of human decision-making processes.

The results of systematic observations point to a decision-making agent that is quite distinct from the *homo economicus* model. The agent that emerges from behavioural studies is characterised by the frequent use of heuristics (cognitive shortcuts or ‘rules of thumb’) to solve difficult problems (generally involving risk and uncertainty), leading them to biases—systematic errors resulting from the use of heuristics (Tversky and Kahneman 1974; Kahneman 2003). These errors include decisions made largely automatically and intuitively, restricting deliberate and rational choices—which are necessarily costly; aversion to loss; and evaluation of changes from a particular point of reference (Kahneman and Tversky 1979; Kahneman 2003). Their behaviour eventually becomes diametrically opposite

to their own self-interests. They have limited attention spans and self-control, which leads to a bias towards the present and would help explain phenomena such as low saving rates and procrastination (Thaler 2015). Emotions affect their judgements and strongly influence their behaviours.

The decisions of these 'behavioural agents' are deeply influenced by the context in which they are made. Therefore, in certain situations, human beings can benefit from 'nudges' to make decisions that are more in line with their self-declared interests—such as eating better, saving for retirement, conserving energy etc. (Thaler and Sunstein 2008; 2013).

### 3 Behavioural economics and public policies

A recent development of behavioural economics is the application of behavioural insights to public policies. From empirical evidence obtained through the behavioural sciences, some consensus has been reached regarding important aspects of human nature and the human condition, such as the impacts of cognitive, emotional and social factors on behaviour. Such factors have increasingly been the object of public policy interventions aiming at changing the circumstances surrounding people and their actions.

In this context, the way in which programme options are presented to citizens—their *architecture of choice*—can have a significant impact. Programme design must be informed by evidence from behavioural sciences, about how people act and make decisions. Small changes in the framing of a message or choice, or in the structuring of a process, can have a significant impact on possible decisions and actions. One of the most poignant examples of instruments of the architecture of choice are *default choices*—previously selected options that allow individuals the possibility of migrating to another option (*opting out*). As a rule, defining different default choices to the same set of options yields significantly different results—with choices concentrated around the default, whatever it might be. The large variation in potential organ donors in the European Union illustrates this point. The difference between drivers who agree to be organ donors in countries such as Austria, France, Poland and Portugal (around 99 per cent) and in Denmark, Germany and the United Kingdom (between 4 and 17 per cent) can largely be attributed to presumed consent in the first set of countries (see Johnson and Goldstein 2003).

Behavioural sciences have been accumulating evidence of the power exerted by the situation or context in decision-making processes. If this capacity is underestimated, it might weaken policy reach. This capacity can be potentialised through behavioural insights (Shafir 2013). Therefore, the architecture of choice is in fact largely relevant and should not be neglected if we wish to reap the rewards of the advances in this field to improve public policies.

The application of behavioural insights in the field of public policy has gained significant traction over the past few years, both nationally and in international organisations. According to the pioneering experience of the United Kingdom's Behavioural Insights Team (BIT), a growing number of countries (such as the USA, Australia, Canada and France, among others) have adopted this approach in the analysis and improvement of their own policies (Halpern 2015). Many international organisations

have also pointed to the importance of considering conceptual and methodological instruments originating from behavioural research. In 2015, the World Bank dedicated its main publication, the *World Development Report*, to the theme. Recently, the United Nations assigned an advisory group to the Secretary-General to deal with behavioural themes—focusing on reaching the goals of the 2030 Agenda for Sustainable Development. A study by Lourenço et al. (2016), commissioned by the European Union, identified over 200 initiatives in 32 countries of public policies related to behavioural perspectives. Finally, the Organisation for Economic Co-operation and Development (OECD), in its report *Behavioural Insights and Public Policy Lessons from Around the World* (2017), identifies 159 case studies in 23 countries where behavioural insights were applied to some degree.

Therefore, the relevance of behavioural insights to various local and international development agendas is clear. Promoting the discussion around this innovative approach, based on experimental evidence and on best international practices, as well as exploring the possibilities of integrating it in the design, implementation and evaluation of public policies in developing countries is a pressing challenge.

### 4 Behavioural economics and social policies

A theme that is being more thoroughly explored in the literature and in initiatives from international organisations is the understanding of the decision-making processes of people living in poverty. This understanding can contribute to the improvement of social programmes. Some of the main points under study are the cognitive and emotional overloads that poor people are subjected to in a context of great pressure and uncertainty. They have access to very limited alternatives to deal with such challenges.

Poor people are subjected to more significant budget restrictions, which increase their need to ponder opportunity costs and overload their cognitive resources (which, as with anyone, are limited, regardless of their economic situation). A fundamental reference regarding this point is the work by Mullainathan and Shafir (2013) about the psychology of scarcity and its implications for poverty reduction policies.<sup>3</sup> In situations of scarcity (understood as the subjective feeling of having more needs than resources to fulfil them), every small decision becomes a trade-off, because the absence of financial cushions does not allow people in such situations the luxury of not making decisions. Their mental bandwidth ends up being expended on relatively simple tasks. Therefore, people in situations of scarcity compromise their cognitive capacity and their self-control through excessive use. These are scarce resources that are crucial in critical decisions which could lead them to overcome poverty.

The psychological processes that emerge from scarcity make life less navigable, as people act in a computationally more complex world. The cognitive overload imposed by scarcity increases the propensity for errors, and such errors have a greater cost when incurred by poor people. Errors caused by a lack of self-control ('falling into temptation'), for example, tend to be more frequent and costlier to the poorest people. This would entail a perversely regressive 'temptation tax'.

One of the effects observed in situations of scarcity is 'tunnelling'. The decision-making process becomes

excessively focused, frequently associated with low-quality decisions. The agent faces a pressing, immediate problem, around which an attention ‘tunnel’ is created. This tunnelling causes short-sightedness, making it more difficult for people to evaluate the alternatives available to them when dealing with difficulties. A possible example is the situation wherein the immediate need to pay an overdue bill is resolved through a high-cost personal loan, which feeds scarcity itself. Another, more critical, example is the situation wherein the lack of income resulting from a parental job loss leads a family to remove its children from school to seek some kind of work, leading to negative consequences throughout the children’s lives.

Tunnelling also makes it more difficult to correctly perceive incentives. An example cited by the authors is the US-based programme Temporary Assistance for Needy Families (TANF). The maximum duration of the benefit—five years—designed as an incentive for beneficiary families to seek their own livelihoods, is beyond the ‘attention tunnel’ of beneficiaries and becomes relevant only when time is running out.

The evaluation, therefore, is that agents in situations of scarcity make critical decisions with their cognitive and self-control resources depleted. This is precisely why they are more prone to committing mistakes and the reason for the low quality of their decisions (Mullainathan and Shafir 2013). The capacity to save, for example, depends on intertemporal and relatively complex calculations, as well as a significant amount of self-control. Poorer people are not only less capable of saving, but also find particular difficulty in computing the possible long-term gains of saving and in controlling impulses of immediate consumption, in the rare situations of financial surplus. Cognitive and self-control limitations would also explain the adoption of imperfect commitment devices (and which could be considered irrational), such as incurring a high-interest loan to help them save money, because the lenders’ enforcement mechanisms are more effective than the conscious decision to save.<sup>4</sup>

In presupposing the beneficiaries’ ample capacity to make decisions, social policies might waste a considerable amount of resources, without obtaining expected results (Banerjee and Duflo 2011). This occurs because the response of the poorest people to social policies is also affected by the effects of scarcity on the agents’ cognitive, computational and self-control resources. For example, various interventions—such as the use of protective nets against the malaria mosquito, the adherence to a vaccination calendar and the use of chlorine in the water—could be highly effective to improve health-related outcomes, impacting people’s future incomes. However, the demand for these interventions is less than might be expected, assuming the full rationality of its potential beneficiaries.

A conservative diagnosis would suggest that poor people are themselves responsible for their vulnerable situations, due to a lack of interest in initiatives that could improve their condition. The behavioural perspective includes elements that allow this conclusion to be questioned. The mindset of those living in a situation of scarcity is not a personal trait, but largely the result of environmental choices produced by scarcity itself. If we

believe that the architecture of choice of social programmes can predictably alter the choices of potential beneficiaries in ways that are favourable to them, then we can augment their effects. The discussion becomes more pragmatic, such as considering how to adjust the design of social programmes according to the limited cognitive, computational and self-control capacities of behavioural agents, which are sapped even further in a situation of scarcity, or how to improve the impact of these programmes.

This seems to be the perspective adopted by Banerjee and Duflo (2011). According to them, instead of discussing the ‘big issues’ around ‘poverty traps’ and general strategies to overcome them, we should approach the concrete situations faced by poor families and communities, identifying the main obstacles to the improvement of their lives and the alternatives that could be adopted to remove them.

The fight against poverty would benefit from solutions to the concrete problems faced by the poorest people, evaluated in their real-life contexts. Poor people are subjected to preoccupations that do not affect the lives of those who are well-off (such as the quality of water or everyday access to food, for example). This overloads their cognitive system and limits the processing of potentially relevant information related to programmes that could improve their lives. The communication strategy and the architecture of choices of social programmes need to take that into consideration to assist potential beneficiaries’ decision-making processes.

Small adjustments in the communication, design and implementation of social programmes can lead to very positive changes in their outcomes—even if a country’s social and political structures remain the same. This means we can be optimistic and do not necessarily need to believe that nothing can be done before great transformations take place.

A more pragmatic approach for social programmes, such as we have just described, could lead us to the perception that the poorest people could make better long-term decisions (such as building up a certain level of savings) if they had some prospects for the future and the likelihood of accomplishing long-term projects. In this case, they would be able to forgo small, fleeting satisfactions—their precious few rewards in a context of non-existent prospects. A minimum of security would be crucial to enable this broadening of their temporal horizon, pointing towards possibilities beyond immediate needs and reducing stress levels, therefore improving their decision-making capacity.

Thus, some social policies should be understood from a viewpoint of generating minimum security levels. Microcredit, children’s education, job security, the availability of a basic social network and insurance against disease and disasters, for example, have the potential of contributing to this minimum level of security so that people and families living in poverty can make the choices that are better for their own interests—considering their present needs and future projects.

The behavioural approach could also provide conceptual elements to understand how specific policies, such as

conditional cash transfers, would affect relatively complex intertemporal calculations, such as children's education. As we have seen, long-term decisions tend to be negatively affected by the cognitive and emotional overloads associated with scarcity. Therefore, cash transfers by themselves would tend to contribute to beneficiary families experiencing this basic, essential level of security so that long-term decisions could be made more appropriately. However, the second element of the design of these programmes—conditionalities—would still have a relevant role in emphasising children's education.

Therefore, while cash transfers have contributed to reduce, even though to a limited extent, the pressure on the bandwidth and to reduce the effect of tunnelling on beneficiary families' decision-making processes, conditionalities (and their effective monitoring) would help bring the importance of children's education to their attention, so that the family could make the best long-term decision.

Obviously, it is not our intention to suggest that conditional cash transfer programmes have been developed from the behavioural perspective—not even that conditionalities can be understood as a typical behavioural intervention. On the contrary, in their usual, punitive form, conditionalities are part and parcel of the traditional, paternalistic repertoire of the State. However, softer approaches to conditionalities (adopted by cash transfer programmes that are labelled as conditional but do not effectively monitor conditionalities, or by programmes that, before any financial sanction to families that do not comply with conditionalities, adopt measures to bring these conditionalities to the families' attention) seem to be sufficiently aligned with the behavioural approach, to the point of being able to benefit from some of its insights.

As we have seen, situations of scarcity associated with poverty overload people's cognitive and planning capacities and their self-control. Therefore, in defining the rules of a poverty reduction programme, it is paramount to consider the errors that can be made by the users, establish mechanisms to avoid them and define correction pathways for the beneficiaries who are not able to comply with all of the programme's prerequisites.<sup>5</sup>

Programmes must be as simple as possible to achieve their goals (Sunstein 2013), mainly so that they are understandable enough to lead their target audience to enlist in it and adequately follow its procedures. Another relevant factor is avoiding an unnecessary cognitive load on beneficiaries. For example, in considering whether it is worth introducing a certain behaviour through a new conditionality (such as the compulsory participation of parents in their children's school meetings), it is important for policymakers to consider that this demand will lead to additional costs to beneficiaries. As pointed out by Mullainathan and Shafir (2013): "we never consider this cost in deciding which behaviours are worth promoting". We must consider the trade-off between the incentive's expected benefit and its cost for beneficiaries.

## 5 Final considerations

The design and implementation of public policies have frequently been based on a rational agent model, endowed

with complete and consistent preferences, a utility-maximising behaviour, complete knowledge and ample capacity to process information.

However, significant evidence—raised by various disciplines—has demonstrated that this model has great limitations. Agents use heuristics to deal with complex problems; make decisions automatically and intuitively; are averse to loss; and evaluate their situation from previous reference points. These elements, among others, distance it from the rational agent model.

In the case of people affected by poverty, this distancing tends to be even greater. Situations of scarcity that characterise poverty represent a heavy overload on the cognitive capacity and executive control of agents. Therefore, the poorest people tend to make more evaluation mistakes, have greater difficulty in maintaining self-control and, given the nature of poverty, pay a higher price for it. The mindset of those living in a situation of scarcity is not a personal trait, but largely the result of the environmental characteristics of scarcity itself.

Poverty reductions policies can benefit from behavioural insights, adopting in their communication, design (especially their architecture of choice) and implementation elements that improve the quality of decisions made by their potential beneficiaries. The use of interventions based on a behavioural perspective seems to have vast potential to improve the efficiency and effectiveness of these policies.

There is still a gap in the diffusion of these themes among policymakers, especially those in developing countries and responsible for poverty reduction strategies. The results of the experience of developed countries suggest an opportunity for the promotion of the autonomy and well-being of populations in many parts of the world from a more accurate consideration of how human beings understand the world around them, make their decisions, relate to their peers and insert themselves in their societies. In an increasingly complex world, one must understand the concrete human being, who is at the same time designer and subject of public policies and development projects. ■

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2. This is consistent with, for example, the principle of not being able to claim lack of prior knowledge when not obeying the law.

3. The authors consider other types of scarcity beyond a lack of economic resources—such as lack of time, and even the lack of calories for wealthy people who are submitted to a weight loss diet—that share the same general elements of the psychology of scarcity. For the purpose of this paper, we will focus on economic scarcity.

4. The reader should note that the adoption of imperfect damage control mechanisms is far from being a recourse only for people living in a situation of scarcity. As individuals realise that their self-control is quite limited and that it would lead them to save less than they would prefer, they adopt damage control mechanisms to curb present consumption. These mechanisms are not always the most efficient from a strictly economic viewpoint—such as, for example, incurring loans to buy low-liquidity assets, such as real estate (Laibson 1997).

5. In the case of the *Bolsa Familia* programme, for example, families receive a written warning and are monitored and advised by social protection network teams before the financial benefits are suspended or revoked.

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