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Behavioural Insights on Poverty and Developmental Policy

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Abstract

Successful development interventions rely on people to behave and choose in a certain way, and insights from behavioural economics help us understand why people behave and choose as they do. This paper aims to investigate the emergence and relevance of behavioural economics in development and study the interlinkages between preferences, cultures, biases and institutions and their policies. The issues of poverty and development urge us to further study topics of savings, contracts and technology uptake, with a particular focus on human behaviour. The paper then focuses on how to design development programs that are cognizant of and informed by behavioural insights across health, education, agriculture, finance and other public services. Finally, it reviews some ways in which behavioural insights and design principles can be incorporated into existing and planned policy interventions to improve their reach and effectiveness.

Keywords: *Behavioural economics, development, poverty, policy*

1.0 Introduction: Behavioural Development Economics

There is increasing recognition today that behavioural insights, by focusing on how people actually make choices, have an extensive impact on creating and delivering more targeted and effective policy interventions. While behavioural economics, and even advanced development economics, had made little to no progress until the past few decades, the interconnectedness of behaviour and development has, in fact, been recognised for centuries. For example, Kautilya (or Chanakya), a statesman and scholar of 4th century India, wrote about public policy, poverty, welfare, culture and what can arguably be termed as behavioural economics in his handbook *Arthashastra* (Kautalya, 1992). In the broadest terms, behavioural economics is a new field within economics that applies cultural, ethical and psychological insights into human behaviour to explain economic decision making (Chibba, 2012). In this way, behavioural economics advances an alternative, and a supplementary perspective, to the rational behaviour and self-interest model that is at the heart of the neoclassical economic theory.

When behaviourism started to gain influence across disciplines in the 1950s and 1960s, it did not leave economics untouched. However, most attempts to diverge from the conventional definitions of economic behaviour were resisted until psychologists Daniel Kahneman and Amos Tversky co-authored a series of articles criticizing the ration-agent model (Tversky & Kahneman, 1974). Thereafter, since the 1970s, behavioural economics has brought together

psychologists, social scientists, economists and even brain scientists in an attempt to better understand human behaviour. Subsequently, joint research by Kahneman, Richard Thaler and others established behavioural economics as a discipline finally taken seriously by economists.
At the time, the major discord between behavioural economics and the standard economic theory was in the universalist claim that there are systemic biases built into people's choices that prevent utility maximization (Berndt, 2019). At a time of increasing scepticism about the political applicability of mainstream economic thinking, behavioural economics was thus able to fill a void. The regularity of many of these behavioural anomalies suggests that these behaviours are in fact anomalous only to traditional models, but may otherwise be the norm.

By synthesizing insights from a variety of distinct disciplines, behavioural economics has changed the way we think about why people do as they do and what motivates their decisions and actions and has provided new answers and new approaches to important questions across economics. Within the development, for example, behaviourism has been increasingly applied to questions of poverty and risk management. Empirical evidence is helping us learn how cognitive limitations, fairness, loss aversion, framing of choices and the qualitative dimensions of risk (such as proximity and control) affect decision making (Kremer et al., 2019). Today, most economists view behavioural economics as consisting of systematic deviations from the standard economic model in terms of preferences, beliefs and decision-making. These deviations are motivated by insights from psychology but are typically captured using economic models.

Most research on behavioural economics and the accumulated evidence has largely been from the USA and Europe in the first few decades. However, the motivation for trying to understand the nature of similar behavioural anomalies in less developed countries stems from the belief that these anomalies are at least as prevalent, if not more, and that they will more acutely affect policy outcomes because there are fewer formal institutions to dampen their effects (Anderson & Stamoulis, 2007). This belief that behavioural anomalies may even be less anomalous (or maybe closer to the norm) stems from three crucial characteristics of developing economies: a greater incidence of poverty and food insecurity, larger rural populations, and the dearth of well-functioning markets (Anderson & Stamoulis, 2007).

Since the turn of the century, development economics has increasingly come to incorporate theories and ideas from behavioural economics, giving birth to the subfield of behavioural development economics. In their influential chapter on behavioural development

economics, Michael Kremer, Gautam Rao and Frank Schilbach discuss three key concepts – present bias, loss aversion and social preferences – and their ability to shed light on issues in development economics.

An apt example of this has emerged in a recent body of research which found that people in developing countries face high rates of return, yet do not have dramatic growth in consumption as would be predicted by the Euler equation (Kremer et al., 2019). This poses a puzzle in the framework of the neoclassical model with non-concave production functions or risk aversion. Low investment in preventive health is one specific case of apparent underinvestment in high-return opportunities, and the neoclassical model is unable to explain this, especially when paired with the high sensitivity of this investment to price and convenience (Kremer et al., 2019). However, concepts of behavioural economics are able to explain this phenomenon to a certain extent. Present bias, or the tendency to settle for a smaller present reward than to wait for a larger future reward, appears to hold some explanatory power towards the low demand for health investments due to procrastination and liquidity constraints (Kremer et al., 2019). In such cases, the classical tool to deal with self-control problems is commitment devices. These have shown some promise, but are yet to overcome important shortcomings to become an important and effective policy tool.

Similarly, loss aversion can have a severe negative effect on investments in developing countries when combined with the tendency to consider decisions in isolation from each other. Loss aversion can thus generate stickiness of assets, which arguable better matches the dynamics of assets than many poverty-trap models based on increasing returns (Kremer et al., 2019). Additionally, individuals may incorrectly predict their preferences in various ways. Projection bias, or the tendency to overestimate the degree to which one's future tastes will resemble one's current tastes, may reduce investment in preventive healthcare and insurance as people find it difficult to imagine that the extent to which they will need resources if their family is hit by a health shock. Non-standard or biased preferences, beliefs and decision-making can also interfere severely with learning and lead to underinvestment and distortions across the spheres of health, savings, risk and insurance, technology adoption and even labour (Kremer et al., 2019). Critics of behavioural economics have argued that the anomalies of imperfect rationality can be ignored since the actions of a few that deviate from utility or profit maximization will be eliminated or countered by arbitrage and competition in well-functioning markets. However, much of the economic activity that occurs in developing economies takes place in small, informal and poorly

functioning markets, such that any anomalous behaviour is even more likely to influence resource allocation (Anderson & Stamoulis, 2006). This makes it clear that in the context of developing economies, policies based on standard economic model predictions may fail to achieve their objectives.

Here, it is important to note that behavioural distortions are universal features of human behaviour - the same psychological forces are often at play in developing and developed countries. However, differences in market structures and institutions imply that the same behavioural factors that are at play in developed and developing countries have different implications for behaviours. Behavioural development economics thus examines how behavioural biases interact with features of developing societies or how they play out differently given the differing circumstances and institutions of the developing world. This field studies problems of economic development using psychologically realistic models of both decision making and preference formation, rather than rational choice theory. Some of the work within behavioural development economics is informed by the sociological perspective that "take[s] it as obvious that individuals' preferences are formed by society and that society, so to speak, exists within persons" (Demeritt & Hoff, 2018).

2.0 Behavioural economics in poverty

Behavioural development economists have focused immensely on the issue of poverty, and the past two decades have seen rapid advancements in research on the same, particularly through the works of economists like Abhijeet Banerjee, Esther Duflo and Sendhil Mullainathan. Through these works, a unique understanding of poverty and the poor has emerged.

In traditional neoclassical economics, there is nothing special about the poor. While they may lead exceptionally difficult lives, they try to make ends meet by behaving just as rationally as others. The poor can be seen as almost natural '*homini economici'* as they have to live with scarcity and think carefully of how to put available resources to use (Berndt, 2019). As Theodore W. Schultz said in his 1979 Nobel Prize Lecture, "the major mistake has been the presumption that standard economic theory is inadequate for understanding low-income countries and that a separate economic theory is needed," and that smallholders the world over are "calculating economic agents" and "fine-tuning entrepreneurs, tuning so subtly that many experts fail to recognize how efficient they are" (Schultz, 1979). According to this view, the poor are driven to allocate their land, labour and capital in a way that guarantees an efficient outcome given their circumstances.

This position was modified in the 1980s and 90s when it was recognized that market failures directly linked to poverty resulted in inefficient outcomes. Economists at the time argued that asymmetric information[1], moral hazard[2], limited liability or adverse selection[3] are particularly salient for people living in poverty, such that market mechanisms produce inefficient outcomes "even if everybody is perfectly rational" (Duflo, 2005). In subsequent research, Abhijit Banerjee points out that there are two explanations for this in standard economic literature, both of which partly contradict each other (Banerjee, 2001). The first is that the poor are different because they are desperate in their circumstances and have nothing to lose. For example, they may lack the incentive and discipline to repay a loan, because of which lenders may think twice before giving them money. In this way, the poor may not be given the same opportunities as richer people, trapping them in a vicious cycle of poverty. The second explanation links poverty to vulnerability. This results in the poor being overly cautious and risk-averse, as losses cause them dearly, leading to a vicious cycle of underinvestment. While both of these contradictory explanations may speak to different segments of the population, these explanations deal with poverty-related structural constraints on the decision-making process of otherwise rational individuals.

However, most behavioural economists criticise this view and argue that institutional arrangements in the households, families and communities of the poor are too complex to be reduced to mere questions of better information and incentives, or policies interventions to introduce owner-occupational land tenancy and private property rights. Instead, scholars argue that poverty has various implications that affect how people think and act in different ways than the 'non-poor' (Berndt, 2019). The poor may exhibit the same basic weaknesses and biases as everyone else, except that in the case of poverty with its narrow margins for error, the same behaviours often manifest themselves in more pronounced ways and can lead to much worse outcomes. Poverty creates particular psychological burdens, leading to a negative feedback loop that results in disadvantageous economic behaviour, and subsequently exacerbated 'behavioural bottlenecks' (Haushofer & Fehr, 2014).

[1] Asymmetric information is a situation that arises when one party's insufficient knowledge about the other party involved in a transaction makes it impossible to make accurate decisions when conducting the transaction. (Mishkin & Eakins, 2011)
[2] Moral hazard is an asymmetric information problem that arises after a given transaction occurs, where the principal runs the risk that the agent with engage in activities that are undesirable from the principal's perspective (Mishkin & Eakins, 2011)
[3] Adverse selection is an asymmetric information problem that occurs before the transaction, where one party has more information than the other, which is exploited. (Mishkin & Eakins, 2011)

The first such bottleneck is loss aversion. Tverksy and Kahneman point out that people 'suffer' from an asymmetry in their preferences as responses to losses are consistently much more intense than responses to corresponding gains (Tversky & Kahneman, 1974). Poor people are generally hesitant to take the risk of trading off their meagre incomes against potentially higher incomes in the future, leading to a lower adoption rate of new technologies and lower human capital investments. This decreases future income further, creating a poverty trap. For example, in the Global South, it is assumed that vulnerable farmers are very reluctant to change their behaviour. In the case of severe shocks, this tendency may result in a willingness to 'toughen it up' and rely on informal ways to cope with risks rather than changing behaviour.

Loss aversion may contribute to two other phenomena called the status quo bias and the endowment effect. Individuals tend to prefer the status quo to changes that involve losses in some dimension, even when these losses are coupled with larger gains in the other direction. Thus, actions that are, on the net, revenue-neutral or even revenue-enhancing may be welfare decreasing if they involve losses (Anderson & Stamoulis, 2006). Therefore, either because of this status quo bias or inertia, default options dominate choices. On the other hand, the endowment effect is the increased value attributable to possession or property rights.

Secondly, in situations of poverty, what is referred to as 'self-control problem' or procrastination is further exacerbated, which is connected with the idea that people discount time (Berndt, 2019). Discounting refers to the propensity to value the present higher than the future, leading to a tendency to enjoy benefits now and postpone costs to the future. In other words, people tend to be impatient in the present and patient in the future. While the time and risk preferences of the poor may not differ from those that are better off, the poor are more likely to suffer from liquidity constraints, for instance, because of more limited access to credit markets. This may result in an even greater bias for the present or short-termism that lets them forego more sustainable decisions. For example, it could be that the income earned after selling the harvest is spent immediately and/or that decisions to buy fertilizer or other inputs are shifted to an indeterminate future.

In this way, poor people tend to delay unpleasant activities in the present even if they have large returns in the future. The classical vicious circle of low income and lack of savings, worsened by shocks, results in a preference for solutions with more reliable, but lower average returns and thus an unwillingness to take on additional risks by borrowing and making long-term

investments due to this uncertainty (Duflo, 2006). Therefore, living in conditions of poverty exacerbates these problems of 'behavioural bottlenecks', as poverty-related stress is believed to make people unhappy, depressed and anxious. This induces a "shift from goal-directed to habitual behaviour," particularly in the Global South (Haushofer & Fehr, 2014). Thus, in development, behavioural economics has provided fresh insights into crucial questions about why the poor stay poor and has furthered our understanding of poverty by showing how poverty is "as much about psychological and cognitive scarcity as about financial and material deprivation" (Bertrand et al., 2004).

3.0 Designing better development programs

3.1 The behavioural revolution

The insights provided by behavioural development economics alert us to the importance of actors and mechanisms beyond those emphasized by neoclassical economics, such as the importance of access to information or the effects of uncertainty on decision-making (Datta & Mullainathan, 2014). Despite Nobel prizes to Vernon Smith, Herbert Simon and Daniel Kahneman, what we know about cognition is yet to regularly penetrate policy analysis and formulation. However, to some extent, behaviourist ideas about 'why the poor stay poor' have quickly entered the policy realm and are in the process of being translated into a means to design interventions in the Global South. A testament to this is the 2015 World Development Report, titled 'Mind, Society and Behaviour,' which acts as an enthusiastic advocate for more effective development policies and interventions by paying attention to how humans think and how history and context shape thinking (World Bank, 2015). By rendering poverty a behavioural issue, interventions that target human choice and behaviour at the individual level are legitimized, turning highly cost-effective behavioural interventions into the new gold standard for development policies (World Bank, 2015).

These behavioural insights have been used to design innovative solutions to persistent problems like uptake, utilization or adoption, which remain unsolved even after tackling the issues of provision, access and pricing have been tackled by traditional economic models and policy, like taxes, subsidies or the provision of information. For example, behavioural insights have informed the design of financial and health products for the poor and are being used to solve problems ranging from inadequate drug adherence to the slow adoption of new technology in farming and industry (Duflo et al., 2011; Hanna et al., 2012). In the past few decades, a

'science of design for development' has emerged, targeting human choice and action and thus transforming the way development policies are formulated and implemented. In this context, there are three characteristics of the behavioural revolution in development policy that are worth highlighting (Berndt, 2019).

Firstly, scholars of the behavioural turn in development distance themselves both from neoclassical market-oriented policies as well as from traditional development aid and large-scale state interventions. Instead, they tend to occupy a middle ground, which resonates with the suggestion of 'libertarian paternalism' in behavioural economic literature as an institutional frame that is capable of intervening politically with as much state as necessary and as much free market as possible. These depict policies that are 'smart', i.e. policies that help those who are less sophisticated cognitively 'while imposing little or no harm on those who are fully rational' (Camerer et al., 2003). Thus, libertarian paternalist interventions turn into a means of changing behaviour, being capable of curing the behavioural bottlenecks that are ultimately responsible for poverty and underdevelopment. However, given that behaviour can be adaptive, there is hope that 'market players can learn from efficient behaviour' (Swiss Agency for Development and Cooperation, 2008). The market is in fact capable of healing the behavioural deficiencies or bottlenecks that exist by extricating the poor from the limits of traditional cultural and social conditions and by enabling them to take initiative into their own hands.

Secondly, development officials and practitioners who translate behavioural theories into concrete interventions and policies are aware that much more than waiting for the self-healing forces of the market is needed for successful behavioural change (Berndt, 2019). This indicates the practical side of behavioural development. In recent years, the most basic template for the formulation of concrete policy interventions has been provided by Thaler and Sunstein's Nudge Theory. Their work shows how nudging is about the construction and management of incentive structures in order to channel behaviour into a direction that is deemed more socially beneficial (Thaler & Sunstein, 2008). Such nudges can include the strategic framing of information, anchoring[4], simplification of products and procedures. For example, in rural areas where smallholders are assumed to need incentives in order to adopt riskier agricultural practices, text messages that remind farmers to not forget to buy subsidized fertilizer have shown to be effective. Thus, the supply of critical market or production data in a way that smallholders are almost forced to calculate and to entertain the idea of whether or not to take more risks acts as a

[4] Anchoring is a particular form of priming effect whereby initial exposure serves as a reference point and influences subsequent judgements and behaviour. (Tversky & Kahneman, 1974)

nudge (Berndt, 2019).

Third, it is important to note that the behavioural revolution and the science of design complement the "evaluation revolution" which has made it possible to measure whether a given program or policy works. The focus has thus been able to shift to the question of 'how to go about designing programs that are likely to work' (Datta & Mullainathan, 2014). A crucial step in this direction has been the development of the randomized field experiment, and randomization has thus played a crucial role in the spread of behavioural thinking into policy. Particularly in the Global South, the RCT process has shown profound political implications, creating a trend towards evidence-based policy delivery led by organizations like the Abdul Latif Jameel Poverty Action Lab, J-PAL (Berndt, 2019).

Successful development programs rely on people to behave and choose in certain ways, and most programs, policies and interventions stumble primarily because of the way people behave. Programs are taken up with less enthusiasm than expected, resources are not spent as anticipated and programs are not implemented as intended to; the assumptions that we make when we design programs sometimes do not match the way people actually make their choices. People's behaviour thus affects whether the provision of schools, healthcare, improved seeds or new technology will have the effect that they are intended to have. In such cases, behavioural economics provides useful explanations that can form the basis of useful policy intervention by helping us understand why these behavioural challenges occur. This better understanding leads to a better diagnosis of problem points, and subsequently, to better-designed solutions.

Development programs tend to work better when they are designed to match people's actual psychology. For example, the understanding of the status quo effect has been integral in advances in boosting retirement savings in the US. Instead of having employees check a box in order to enrol in a savings plan, the form was altered in a way that employees have to check a box in order to not enrol in the savings plan. This change has been shown to boost savings by 40%, urging many firms to take up this simple change (Datta & Mullainathan, 2014).

3.2 Limited resources in behaviour

The field of economics is premised on the concept of constraints. Resources are limited as there is only so much money, time, labour and interest. While it is commonly understood that physical resources are limited, behavioural economics points out that mental resources are also often limited (Mullainathan & Thaler, 2000). Programs are often designed assuming that people

have the unbounded cognitive capacity and that they can always think through complex problems effortlessly and arrive at the optimal choice. These assumptions tend to be unstated, implicit and even unconscious, but play a large role in most policies and interventions. Datta and Mullainathan's work on development policy highlights the limits on four basic mental health resources: self-control, attention, cognitive capacity and understanding (Datta & Mullainathan, 2014). Let us consider each of these constraints with a commonly observed economic example.
The scarcity of self-control is the most common mental constraint among people. Note that much of development depends on labour productivity, which affects incomes, outputs and profits. Many interventions and programs focus on boosting productivity by approaching it as a capacity issue or one of a lack of motivation and incentive. However, any sort of work is in fact a series of tests of self-control: it takes self-control to identify, plan, and execute all tasks that need to be done without letting distractions divert your attention (Datta & Mullainathan, 2014). Academicians now agree that self-control should in fact be viewed as a psychic "commodity" of which we have a limited stock, such that using some up for one task depletes the amount available for other tasks (Vohs et al., 2008). Exerting this limited self-control requires physiological effort leading to a faster pulse and decreased conductance (Kahneman, 2011). Often, we lose some of our battles of self-control, which could result in workers not only working less hard than their employers want them to but also less hard than they themselves want to.

Kaur et al. (2011) highlighted this in a study of an Indian data entry company, where they designed and offered workers a "negative bonus" scheme. Under this scheme, workers paid their usual piece rate if they were able to meet their self-chosen data-entry targets, but were penalized if they did not. These negative bonus contracts increased output by an amount that was equivalent to increasing their piece-rate by 33% and by more than a year's worth of education. In this way, the increased output came not from more training or pay, but by giving workers a way to work as hard as they wanted to. This insight can be used to solve a myriad of problems, including policies to tackle high levels of absenteeism among public service providers.

The second limitation is the scarcity of attention, for which we consider the case of technology adoption in developing countries. Despite the adoption of newer machines, inputs and techniques being integral for the development process, technology adoption tends to be frustratingly slow in most cases and inefficient. To speed up this process, governments and development practitioners often use interventions that are based on the common diagnosis of a

lack of knowledge about how to use technology. However, mastering a new technology requires the user to be especially attentive to some particular features or aspects of the technology, without with it is impossible to be adept at using it. This is particularly challenging as psychologists have found attention to be a limited resource, just as self-control is (Datta & Mullainathan, 2014). For example, behavioural economists have shown that limited attention, and not a lack of intent, is what often prevents people from acting on their own intentions to save. In this case, drawing people's attention to their own plans to save may help increase savings. This is precisely what has been done in a series of experiments in Peru, Bolivia and the Philippines (Karlan et al., 2010).

The third scarcity is that of cognitive capacity itself. Building off of the previous example on savings, many governments in low and middle-income countries struggle with low rates of participation in pension schemes. Governments try to make programs more attractive and offer more choices in order to tackle the standard diagnoses of lack of intention and interest. However, behavioural economists point out that more choice is actually cognitively taxing, and giving people too many choices overwhelms them. As a result, this may deter even those who want to save simply because they find it too hard to make sense of the many plans and rates available (Datta & Mullainathan, 2014).

Lastly, we consider the scarcity of understanding through the example of the under-use of oral rehydration salts. Despite being cheap and readily available, the usage of Oral Rehydration Solution (ORS) is minimal in India, where over 1,50,000 infants die of diarrhoea each year (Datta & Mullainathan, 2014). Behavioural economists point out that people tend to rely on an underlying implicit theory, or their "mental model" of the world when making choices. While we assume that these underlying theories are correct, understanding is limited, and not all underlying causal relationships are correctly or accurately understood. In this case, a child with diarrhoea is leaking fluids, so 35-50% of poor women believe that keeping the child dry and decreasing its fluid intake is better in order to prevent it from getting more sick (Datta & Mullainathan, 2014). With this mental model of the disease, it will never make sense to use ORS, unless the mental model itself is altered.

4.0 Behavioural design: Creating programs that work

4.1 A new wave of development programs

The use of behavioural insights and economics affects development program design in three ways (Datta & Mullainathan, 2014). First, it changes how problems are diagnosed. For example,

a lack of vaccination coverage among children is often attributed to a lack of understanding of the value of vaccination among poor parents. However, behavioural economics forces us to consider that this might be an example of people failing to match up with what they want to do i.e. parents might want to vaccinate, but don't get around to doing it. Second, it changes how solutions are designed. Oftentimes, something as simple as a text reminder can have a significant impact on behaviour. Third, it changes how the scope of the problem is defined. A behavioural view forces practitioners and policymakers to look past the standard diagnoses of access and affordability.

The study of fertilizer usage in Sub-Saharan Africa acts as a telling example of how behavioural economics alters policy response. Studies have shown that many farmers in Sub-Saharan Africa use little to no fertilizer, which might explain why African crop yields are much lower than those in Asia, where fertilizer usage is higher (Morris et al., 2007). The possible neoclassical explanations for this would include the possibility that fertilizer is not easily available, it's too expensive, farmers are unaware of its benefits, or that fertilizer does not work well enough. However, evidence has shown that fertilizer is in fact available, affordable, effective and appreciated in most of Sub-Saharan Africa, but it's still barely used (Duflo et al., 2011). On the other hand, behavioural economics can provide possible answers to this. Firstly, everyone tends to think they are much more willing to do things in the future than they actually are, but they tend to procrastinate repeatedly about even doing things they want to. Secondly, people tend to lack self-control. These two factors hold true for African farmers as well. Surveys indicate that 97% of Kenyan farmers actually intend to use fertilizer in their fields, but only 37% actually end up using it (Duflo et al., 2011). Right after harvest, when cash is plentiful, farmers intend to spend money on fertilizer. However, the need to buy fertilizer is often overlooked in the time between harvesting and planting, and by the time planting time arrives, the money tends to be spent.

This new diagnosis leads to new solutions. An intervention that helps tie the hands of the farmers in a way that can help their self-control problems can prove to be effective. For example, a special savings account that let farmers lock up some of their money and utilize it later at a pre-decided time led to an increased usage of fertilizer and other farm inputs, helping boost crop sales (Brune et al., 2011). The important aspect to note in this intervention is that farmers are merely given the option to temporarily freeze their money, and no one is forcing them to do so.

4.2 Behavioural design principles

The expert design of an intervention or development program is futile unless problems and bottlenecks have been diagnosed accurately. However, once this has been done, insights from behavioural economics can be used to create effective solutions that would actually work on the ground. Datta & Mullainathan (2014) condense behavioural economic literature on the same and have listed seven key design principles that they believe can guide the behaviourally-informed design of development policy.

Principle 1: Facilitate self-control by employing commitment devices
Principle 2: Reduce the need for self-control
Principle 3: Remove snags to choosing
Principle 4: Use micro-incentives
Principle 5: Reduce inattention through reminders and implementation intentions
Principle 6: Maximize the impact of messaging with framing effects, comparisons & norms
Principle 7: Frame messages to match mental models

Each of these principles is already being applied in interventions across the developing world, however, there is still a need to highlight and promote their active usage by governments and development practitioners. In their work, Datta and Mullainathan elaborate on each of these principles with supporting examples.

5.0 Conclusion

The past few decades have seen the impressive movement of behaviourism into the economic mainstream, from the marginal position at the crossroads of psychology and economics into the making of policies and interventions. The study of human decision-making through the lens of behaviourally sound economic theory is integral in shaping a more accurate understanding of poverty. This paper has been an attempt to review the role of human behaviour in development and how these insights have been, and can further be, applied to development policy.

Before concluding, it is important to address and acknowledge some caveats of behavioural development economics and policies. Firstly, one must note that behavioural development economics seeks to supplement existing theories of development economics by identifying

systematic and relevant aspects of human behaviour. It does not deny the importance of institutions or economic policy in the development and instead studies how universal behavioural factors play out in the context of various choices, markets and institutions that are commonly observed in developing countries. Second, behavioural development economics does not in any way blame the poor for their poverty. The discipline is instead concerned with universal psychological factors and does not prescribe biases against the poor. Lastly, behavioural economics is often seen as leading to paternalistic policies and restrictions on individual choice. While understanding the role of behaviour does not automatically translate into policy interventions, one must note that misunderstanding human behaviour can also lead to bad policy outcomes (Kremer et al., 2019).

The focus of behavioural economics still continues to rest overwhelming on inquiry within the context of rich countries. In order to further allow behavioural insights to permeate into standard economic policy, more empirical research should be directed towards testing the effectiveness of behaviourally motivated anti-poverty policies. The main thrusts to advance research, practice and policy on behavioural development economics are experimental economics, evaluations, the culture and economics nexus, and the tackling of the sustainable development goals – particularly poverty.

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