

Behavioural Economics: Rethinking Decision-Making at the Micro Level

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Abstract

This chapter explores the evolution and impact of behavioural economics, which has revolutionised our understanding of decision-making by integrating psychological insights into economic theory. Traditional economic models, based on rational decision-making, are challenged by the behavioural approach, which highlights the role of cognitive biases, emotions, and social factors in shaping choices. The chapter traces the historical development of the field, from Herbert Simon's concept of bounded rationality to the contributions of Kahneman and Tversky's prospect theory, and examines key theories such as mental accounting, nudging, and the dual-process theory of decision-making. Empirical studies demonstrate how these theoretical frameworks manifest in real-world behaviour, influencing areas like consumer choice, public policy, and corporate strategy. The chapter also discusses the practical applications of behavioural economics, including interventions in public health, energy conservation, and retirement savings, alongside its growing role in business and marketing. Despite its successes, the field faces critiques regarding its reliance on laboratory experiments, ethical concerns about nudging, and its focus on individual behaviour. Future research should address these challenges and explore the integration of behavioural economics with other disciplines to address global issues such as climate change and economic inequality. Ultimately, behavioural economics provides a more nuanced and realistic understanding of human decision-making, with broad implications for policy design, business strategy, and societal well-being.

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1. Introduction

Behavioural economics represents a paradigm shift in the study of decision-making, providing a more nuanced understanding of how individuals make choices in real-world settings. Unlike traditional economic theories that assume individuals are rational agents who make decisions based on complete information and consistent preferences, behavioural economics acknowledges the influence of cognitive biases, emotions, and social factors on human behaviour.

The origins of behavioural economics can be traced back to the integration of psychology and economics in the mid-20th century. Pioneers such as Herbert Simon (1955) laid the groundwork by introducing the concept of bounded rationality, challenging the assumption that individuals always act rationally. This initial challenge was further developed by Daniel Kahneman and Amos Tversky, whose work on prospect theory (1979) demonstrated systematic deviations from expected utility theory, such as loss aversion and reference dependence.

As detailed in Camerer, Loewenstein, and Rabin (2004), behavioural economics bridges psychology and economics, challenging the traditional assumption of rational agents by exploring how real-world decision-making often deviates from theoretical models. This interdisciplinary approach has laid the foundation for concepts such as prospect theory, bounded rationality, and mental accounting.

Over the decades, behavioural economics has evolved into a robust interdisciplinary field, drawing on experimental evidence, psychological theories, and economic models. It has provided profound insights into how individuals process information, evaluate choices, and respond to incentives. These findings have reshaped our understanding of microeconomic behaviour and have been applied to a wide range of areas, including public policy, marketing, and finance.

This chapter explores the evolution of behavioural economics, its theoretical foundations, and the growing body of empirical research that highlights its relevance in understanding microeconomic behaviour. By examining the intersection of psychology and economics, this review aims to shed light on the mechanisms behind individual decision-making processes and their implications for economic models and public policy.

2. Literature Review

2.1. Theoretical Foundations

Behavioural economics challenges traditional economic assumptions, particularly the concept of rationality. It is rooted in incorporating psychological insights into economic theory. One of the seminal contributions is prospect theory, developed by Kahneman and Tversky (1979), which explains how people evaluate losses and gains relative to a reference point, displaying loss aversion—a tendency to fear losses more than equivalent gains. This deviates from classical economic theory, which assumes that individuals always act to maximise utility. Building on their original prospect theory, Tversky and Kahneman (1992) introduced cumulative prospect theory, which refines the understanding of decision-making under uncertainty. By incorporating diminishing sensitivity to probabilities, the model captures how individuals overweight small probabilities and underweight large ones. This advancement provides deeper insights into risk preferences, particularly in contexts such as the Allais paradox, where choices deviate from expected utility theory.

Expanding upon this, the notion of bounded rationality, introduced by Simon (1955), asserts that individuals do not always make fully rational decisions due to cognitive limitations and information constraints. Rather than optimising, individuals often satisfice, seeking an acceptable option rather than the best one (Simon, 1955; Gigerenzer & Todd, 1999).

Kahneman (2011) provides a comprehensive framework for understanding decision-making through the dual-process theory. System 1, characterised by fast, intuitive processes, often leads to cognitive biases, while System 2, slower and more deliberate, attempts to correct these biases. This distinction is crucial in understanding phenomena like anchoring and present bias, which are key themes in behavioural economics.

Thaler's (1985) research on mental accounting extends these ideas by showing how individuals categorise money and treat it differently based on its origin or intended use, leading to behaviours that seem irrational under traditional economic models. For example, people may spend a “windfall” on non-essentials but be reluctant to dip into savings for the same amount (Thaler, 1985).

Additionally, nudging, as popularised by Thaler and Sunstein (2008), further refines the behavioural economics framework. Their concept of nudging suggests that subtle changes in the choice architecture can significantly affect decision-making without restricting individual freedom.

This has been influential in policy design, where interventions aim to improve individual outcomes by altering the environment in which decisions are made, such as encouraging healthier behaviours or higher savings (Benartzi & Thaler, 2004).

Further research by Ariely (2008) shows that human decisions are often influenced by biases that are predictable, yet individuals are unaware of their influence. In his work on “irrationality,” Ariely demonstrates how decision-making can deviate from what would be considered rational, underlining the importance of behavioural insights in understanding economic choices.

Cognitive biases, such as present bias (Loewenstein & Thaler, 1989), show that individuals often favour immediate rewards over future benefits, even when this contradicts their long-term interests. This is particularly relevant in understanding issues such as retirement saving and health-related behaviours, where immediate costs are often overemphasised relative to long-term gains (Madrian & Shea, 2001).

2.2. Empirical Studies

Empirical studies have been instrumental in examining how these theoretical insights translate into real-world behaviour. Thaler and Sunstein’s (2008) nudge theory has been applied widely in various domains, including retirement savings, where automatic enrolment has been shown to increase participation rates significantly (Benartzi & Thaler, 2004). For instance, the Save More Tomorrow program leverages the power of automatic enrolment and the concept of future-oriented decisions, where employees commit to increasing their savings rate gradually (Benartzi & Thaler, 2004).

Other empirical work has demonstrated how decision-making varies under different contexts, such as in intertemporal choice (Loewenstein & Thaler, 1989). Behavioral economics research suggests that decision environments can profoundly influence choices, such as whether a person chooses to save or spend. For example, people are more likely to engage in seemingly irrational behavior when decisions are framed to emphasize immediate outcomes over long-term consequences, highlighting the power of contextual framing in shaping preferences.

The Allais paradox, introduced by Maurice Allais (1953), highlights contradictions in the way people make decisions under uncertainty. This paradox challenges the expected utility theory that underpins classical economics, demonstrating that individuals’ choices often violate rational decision-making rules. Related discussions on deviations from expected utility theory can be found in the broader work of Kahneman and Tversky (1984)

and Shafir and LeBoeuf (2002), who explore how people systematically deviate from rationality in decision-making..

Further extending the study of behavioural economics, Ariely (2008) conducted various experiments demonstrating that individuals often make economically suboptimal decisions, influenced by factors such as anchoring and framing effects. This empirical evidence highlights how psychological factors shape economic decision-making, often resulting in predictable errors in judgment. Complementing this, Frey and Stutzer (2002) argue for the integration of subjective well-being into economic analysis, emphasising that factors like happiness and life satisfaction are crucial for understanding real-world economic behaviour. Together, these perspectives underscore the need for models that reflect the complexities of human decision-making beyond traditional rational assumptions.

Moreover, Mullainathan and Shafir's (2013) concept of scarcity further enriches the understanding of decision-making. They argue that scarcity—whether it's time, money, or cognitive resources—exacerbates biases and limits the ability to make thoughtful decisions. This framework has been instrumental in understanding behaviours related to poverty, saving, and decision-making under constraints.

The concept of scarcity highlights how limited resources can alter cognitive focus, often narrowing an individual's attention to immediate concerns at the expense of broader future consequences. This has been crucial for understanding behaviours in economics that diverge from traditional rational choice theory, as discussed by Mullainathan and Shafir (2013). Relatedly, Gneezy, Imas, and Madarász (2014) explore how emotional dynamics and social contexts influence economic decision-making, offering complementary insights into deviations from purely rational behaviour.

2.3. Critiques and Limitations

Despite its successes, behavioural economics has faced several criticisms. One common critique is its reliance on laboratory experiments, which some argue may lack external validity. These controlled settings may not accurately reflect the complexities and variables of real-world decision-making, leading to questions about whether experimental results can be generalised to actual behaviour.

Another critique revolves around the heterogeneity of preferences. Many behavioural economics studies assume that individuals exhibit consistent biases across different contexts. However, there is evidence to suggest that individuals' preferences vary depending on personal characteristics, social

environment, and situational factors. This challenges the universality of behavioural insights and calls for a more nuanced approach that considers these variables.

The ethical implications of nudging have also been widely debated. While nudges are designed to improve decision-making without restricting individuals' freedom, critics argue that they can still manipulate people in subtle ways, raising concerns about autonomy and paternalism. Determining where the line should be drawn between helping individuals make better decisions and manipulating them is a key area of ongoing debate.

Finally, some argue that behavioural economics focuses too heavily on individual-level decision-making, neglecting broader structural and institutional factors that also influence behaviour. Critics contend that behavioural economics needs to be more comprehensive by integrating the social, political, and economic context within which individuals make decisions.

2.4. Research Gaps

While behavioural economics has made significant strides, several key areas remain underexplored. One of the main gaps is the integration of behavioural economics with other subfields, such as labour economics, health economics, and development economics. While behavioural insights have been applied to specific issues, a broader integration into mainstream economic models could improve the understanding of how behavioural factors influence economic outcomes in these areas.

Another important gap is the long-term impact of behavioural interventions. Most existing studies focus on the immediate effects of interventions, but less is known about their long-term sustainability. For example, do nudges remain effective over time, or do individuals adapt to them? Understanding these long-term effects is critical for policymakers who seek to design sustainable behavioural interventions.

Moreover, cultural differences in decision-making have not been adequately addressed in the literature. While much of behavioural economics is based on Western populations, there is growing interest in understanding how cultural factors influence decision-making processes. More cross-cultural studies are needed to understand how societal norms, values, and expectations shape economic behaviour across different contexts.

3. Practical Applications

3.1. Public Policy and Behavioural Interventions

The concept of nudging, as developed by Thaler and Sunstein (2008) and grounded in their earlier work on libertarian paternalism (Sunstein & Thaler, 2003), has become a cornerstone of behavioural policy interventions. Nudging involves subtle changes in choice architecture to guide individuals toward decisions that improve their well-being while preserving their freedom of choice. For example, policies such as opt-out organ donation and automatic enrolment in retirement savings plans leverage defaults to influence behaviour effectively. However, the ethical implications of nudging, particularly its potential to manipulate choices without individuals' awareness, continue to be a topic of debate, as highlighted in their work.

In public health, behavioural insights have been used to address issues such as smoking, obesity, and alcohol consumption. Programs that use financial incentives or rewards for healthy behaviours have had a significant impact on promoting weight loss or increasing physical activity. For example, studies have shown that financial incentives tied to achieving exercise goals can motivate individuals to adopt healthier habits. Similarly, tax policies designed to reduce smoking, such as increasing the price of tobacco products, leverage the concept of loss aversion by framing the increased price as a potential loss, which is more impactful than simply framing it as a gain in public health.

The concept of default settings is another powerful tool in behavioural policy. One of the most successful applications has been in the domain of energy conservation. By setting energy-efficient options as the default, or providing feedback on household energy usage, governments and organisations have successfully reduced energy consumption. For example, in California, households that received feedback on their energy use compared to similar households were able to reduce their consumption by 2-3%. The success of such interventions demonstrates how behavioural economics can lead to more sustainable outcomes, not by coercing individuals but by guiding their choices in ways that benefit both them and society.

Behavioural economics offers valuable tools for addressing income inequality and regional disparities. Chetty et al. (2009) highlight the role of geography in shaping economic outcomes, suggesting that behavioural insights could inform policies aimed at reducing inequality, such as place-based interventions and targeted economic incentives.

3.2. Business and Marketing

The insights from behavioural economics are also being widely applied in business and marketing. Consumer choice and pricing strategies have been significantly influenced by understanding how consumers make decisions under uncertainty and how biases like anchoring and framing affect their purchasing behaviour.

One example is the use of decoy pricing, where companies introduce a less attractive option in order to make other options appear more attractive. This tactic plays on the anchoring effect, where the presence of a higher-priced item makes the original product seem like a better deal. For instance, many retailers offer three pricing options—one very expensive, one moderately priced, and one extremely cheap. The moderately priced option often appears more attractive in comparison to the high-priced one, leading consumers to choose it.

Behavioural pricing is another area where businesses have utilised mental accounting to segment products in a way that influences spending. For example, individuals might treat money spent on “luxury” items as less significant than money spent on more utilitarian goods, leading to irrational purchasing decisions. By using pricing strategies that take advantage of this, businesses can increase consumer spending on products that might not otherwise be considered.

In the context of retail, loss aversion is leveraged to create more compelling sales strategies. For example, “limited-time offers” or “clearance sales” exploit the consumer’s fear of losing out on a good deal. This triggers a rush to purchase, even when the consumer doesn’t necessarily need the product. Businesses also use reward programs based on mental accounting, encouraging customers to spend more by creating the illusion of “gains” when redeeming points, even though the program might not offer significant value.

4. Policy Implications

4.1. Implications for Government and Policy Makers

The applications of behavioural economics extend far beyond individual and organisational behaviour, providing important insights for policy design. Policymakers around the world have recognised the potential of behavioural economics to address issues like public health, environmental sustainability, and financial well-being. One of the key insights that has emerged from

behavioural economics is the need for policies that acknowledge human psychology rather than assuming individuals always act rationally.

For example, nudging has been used to design policies that encourage individuals to take actions that are beneficial to society without infringing on their freedoms. The success of auto-enrolment pension schemes and organ donation registration has highlighted the power of default options in influencing behaviour. By changing the default setting from “opt-in” to “opt-out”, individuals are nudged toward behaviours that align with social goals, such as increasing retirement savings and organ donation rates.

Similarly, tax policies that target unhealthy behaviours—such as sin taxes on tobacco and alcohol—have been effective in reducing consumption. These policies work by creating a psychological deterrent, as people are more likely to avoid behaviours they perceive as “losses” rather than “gains”. Behavioural taxation has also been extended to areas such as sugar taxes on soft drinks, which aim to reduce consumption of unhealthy products by making them more expensive.

In the area of environmental policy, behavioural economics offers new tools to address climate change. Studies have shown that people are more likely to engage in energy-saving behaviours when they are provided with feedback on their consumption patterns or compared to their peers. Governments and companies have successfully implemented smart meters and feedback systems to encourage individuals to reduce their energy usage.

4.2. Corporate Social Responsibility (CSR)

Behavioural economics also plays a role in Corporate Social Responsibility (CSR), where businesses are using insights from behavioural science to create more socially responsible strategies. Sustainability initiatives, such as reducing energy consumption or promoting ethical sourcing, can be framed in ways that appeal to consumers’ psychological biases. By highlighting the social impact of their decisions, businesses can encourage customers to make more environmentally conscious purchases, leveraging the bandwagon effect or the desire to conform to social norms.

Moreover, companies that integrate behavioural insights into their CSR strategies often find that their actions not only benefit society but also enhance their brand image and consumer loyalty. This, in turn, leads to long-term financial benefits. The use of behavioural nudges in the corporate sector is growing, and it is expected that businesses will continue to integrate these principles into their practices to create more sustainable and socially responsible outcomes.

5. Conclusion

Behavioural economics has fundamentally transformed the way we understand individual decision-making, shifting beyond the traditional view of rational choice to a framework that acknowledges the pervasive influence of cognitive biases, emotions, and social factors. By integrating insights from psychology, the field has enriched our comprehension of how people make choices in everyday life, offering a more realistic depiction of human behaviour. Its contributions to consumer behaviour, policy design, and business strategy have sparked innovation across sectors ranging from public health to corporate governance.

The practical implications of behavioural economics are vast. For instance, nudge theory has revolutionised public policy by enabling low-cost, scalable interventions that address societal challenges like retirement savings, organ donation, and energy conservation. Similarly, businesses have leveraged behavioural insights to enhance marketing strategies, improve customer experiences, and foster sustainable consumer habits. These advancements underscore the potential of behavioural economics to drive meaningful, real-world change.

However, significant challenges remain. Ethical concerns surrounding nudging highlight the delicate balance between guiding behaviour and preserving autonomy. Questions about the external validity of experimental findings also persist, raising doubts about the generalisability of laboratory results to complex, real-world contexts. Moreover, the field's focus on individual behaviour often overlooks structural and systemic factors, which are equally crucial in shaping decision-making processes.

Future research in behavioural economics should address these challenges by broadening its scope and deepening its integration with other disciplines. The application of behavioural insights to pressing global issues such as climate change, economic inequality, and international development could unlock new solutions to some of humanity's most urgent problems. Cross-cultural studies are particularly needed to understand how behavioural principles vary across diverse populations, fostering a more inclusive and globally relevant body of knowledge.

As we move forward, the integration of behavioural economics with emerging technologies, such as artificial intelligence and big data, holds exciting potential. These tools can enhance our ability to model and predict behaviour, enabling more personalised and effective interventions. Additionally, collaboration with disciplines like sociology, neuroscience, and

environmental science can provide richer, multidimensional perspectives on human behaviour.

In conclusion, behavioural economics is poised to remain an essential tool for policymakers, businesses, and individuals striving to navigate an increasingly complex and interconnected world. Its interdisciplinary approach continues to offer invaluable insights into the intricacies of decision-making, empowering us to design better policies, create more effective business strategies, and ultimately improve societal well-being. By addressing its limitations and embracing new opportunities, behavioural economics will continue to shape the future of economic thought and practice.

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