

RECONCILING RATIONALITY AND BEHAVIORAL BIASES IN FINANCIAL DECISION-MAKING: A THEORETICAL INTEGRATION

Roshan Sharma

Student

MBA, Vivekananda Global University, Jaipur, India
21MGT3MB023@vgu.ac.in, (2021-22)

Sante Pranav Sainath

Student

MBA, Vivekananda Global University, Jaipur, India
21MGT3MB024@vgu.ac.in, (2021-22)

ABSTARCT

This study explores the integration of rationality and behavioral biases in financial decision-making, addressing the limitations of traditional economic models that assume fully rational investors. By synthesizing insights from behavioral finance, psychology, and decision theory, the paper develops a comprehensive framework that explains how cognitive biases, emotional influences, and bounded rationality shape financial behavior. The study highlights that heuristics such as overconfidence, loss aversion, and anchoring are not merely irrational deviations but adaptive responses to complex and uncertain environments. Furthermore, the interaction between intuitive and analytical thinking processes is examined to understand how decisions vary across different contexts. The inclusion of a conceptual trend analysis (2015–2021) further demonstrates the shifting balance between rational and behavioral influences, particularly during periods of uncertainty. The findings emphasize the need for a hybrid approach that combines rational models with behavioral insights to enhance decision-making effectiveness. This integrated perspective has significant implications for investors, financial institutions, and policymakers aiming to improve financial outcomes and promote sustainable investment practices.

Keywords: Behavioral Finance, Rationality, Cognitive Biases, Financial Decision-Making, Bounded Rationality, Investor Behavior, Heuristics, Dual-Process Theory

INTRODUCTION

Financial decision-making has traditionally been grounded in the principles of rationality, where individuals are assumed to act logically, process all available information efficiently, and aim to maximize their utility. Rooted in classical economic theories such as Expected Utility Theory and Modern Portfolio Theory, this perspective views investors as consistent, risk-aware, and analytically driven agents. However, over the past few decades, a growing body of interdisciplinary research has challenged this idealized notion by demonstrating that real-world financial decisions are often influenced by psychological, emotional, and cognitive factors. This has led to the emergence of behavioral finance, a field that integrates insights from psychology and economics to better explain deviations from rational behavior in financial contexts (Asebedo & Payne, 2019; Abreu & Mendes, 2020).

Behavioral finance highlights the systematic biases and heuristics that shape investor behavior. Cognitive biases such as overconfidence, anchoring, loss aversion, and mental accounting frequently lead individuals to make suboptimal decisions, even in the presence of adequate information (Bar et al., 2021; Baschieri et al., 2021). For instance, overconfidence

may cause investors to overestimate their knowledge or predictive abilities, resulting in excessive trading and increased risk exposure. Similarly, loss aversion, as identified in Prospect Theory, suggests that individuals experience losses more intensely than equivalent gains, leading to risk-averse behavior in gains and risk-seeking behavior in losses. These behavioral tendencies contradict the assumptions of rational choice theory and underscore the importance of incorporating psychological dimensions into financial analysis (Qizilbash, 2021; Wu & Snyder, 2019).

Recent theoretical advancements attempt to reconcile the apparent dichotomy between rationality and behavioral biases rather than treating them as mutually exclusive frameworks. Scholars argue that rationality in financial decision-making is often bounded, as individuals operate under constraints such as limited information, time pressure, and cognitive capacity (Dold, 2018; Strassheim, 2020). The concept of bounded rationality, originally proposed by Herbert Simon, suggests that individuals seek satisfactory rather than optimal solutions. Within this framework, heuristics and biases are not merely errors but adaptive strategies that simplify complex decision-making processes. Thus, behavioral biases can be interpreted as functional responses to real-world constraints, offering a more nuanced understanding of investor behavior (Dekker & Remic, 2019; Phillips-Wren et al., 2019).

The integration of affective and intuitive processes into decision-making models has gained increasing attention. Dual-process theories propose that human cognition operates through two systems: a fast, intuitive, and emotional system (System 1), and a slower, analytical, and deliberate system (System 2). Financial decisions often involve an interplay between these systems, where intuitive judgments may dominate under uncertainty or stress, while analytical reasoning may prevail in structured environments (Akinci & Sadler-Smith, 2020; McWhirter & Shealy, 2020). This interaction helps explain why investors sometimes deviate from rational strategies, particularly in volatile or ambiguous market conditions.

Another critical dimension of this theoretical integration is the role of contextual and social influences in shaping financial behavior. Factors such as cultural norms, peer influence, institutional settings, and technological advancements significantly impact decision-making processes (Georgiou et al., 2021; Parviainen et al., 2021). For example, the rise of digital trading platforms and algorithmic tools has transformed how individuals access and interpret financial information, potentially amplifying both rational analysis and behavioral biases. Social dynamics, including herd behavior and informational cascades, further illustrate how individual decisions are often influenced by the actions and expectations of others (Shantha et al., 2018; Ward et al., 2017).

Ethical considerations and normative perspectives also play a vital role in reconciling rationality with behavioral insights. Traditional economic models emphasize efficiency and profit maximization, whereas behavioral approaches acknowledge the importance of well-being, fairness, and long-term sustainability in financial decision-making (Brennan, 2018; Power et al., 2019). This broader perspective encourages the development of decision frameworks that account for both economic outcomes and human values, aligning financial practices with societal goals.

Advances in neuroscience and data analytics have further enriched the understanding of financial behavior. Neuroeconomic studies reveal how brain activity influences risk perception, reward evaluation, and decision-making under uncertainty (Infante et al., 2016; Zhang et al., 2019). Meanwhile, big data and machine learning techniques enable the analysis of large-scale behavioral patterns, offering new opportunities to predict and mitigate biases. These developments highlight the evolving nature of financial decision-making research and

the need for integrative models that incorporate multiple dimensions of human behavior (Dong et al., 2021; You, 2020). The reconciliation of rationality and behavioral biases represents a significant shift in financial theory, moving from rigid assumptions of perfect rationality toward a more realistic and holistic understanding of human decision-making. By integrating cognitive, emotional, social, and technological factors, contemporary research provides a comprehensive framework that captures the complexity of financial behavior. This theoretical integration not only enhances explanatory power but also offers practical implications for investors, policymakers, and financial institutions seeking to improve decision-making outcomes in an increasingly dynamic and uncertain environment (Huffman et al., 2016; Laskovaia et al., 2019).

LITERATURE REVIEW

The literature on financial decision-making has evolved significantly from the traditional rational paradigm to a more comprehensive behavioral perspective, reflecting the growing recognition that human decisions are not always perfectly logical or utility-maximizing. Early financial theories, grounded in rationality, such as Expected Utility Theory and Efficient Market Hypothesis, assumed that individuals process information objectively and make optimal choices under conditions of certainty and risk. However, empirical evidence increasingly demonstrates that investors often deviate from these assumptions due to psychological and emotional influences, leading to the emergence of behavioral finance as a critical area of study (Abreu & Mendes, 2020; Asebedo & Payne, 2019).

A substantial body of literature highlights the role of cognitive biases and heuristics in shaping financial decisions. Behavioral scholars argue that individuals rely on mental shortcuts to simplify complex decision-making processes, particularly under uncertainty. While these heuristics can be efficient, they frequently result in systematic errors. For instance, overconfidence bias leads investors to overestimate their knowledge and predictive abilities, often resulting in excessive trading and risk-taking behavior (Bar et al., 2021; Baschieri et al., 2021). Similarly, anchoring bias causes individuals to rely heavily on initial information when making judgments, even when subsequent data suggests otherwise. These biases challenge the assumptions of rationality and demonstrate that financial decisions are influenced by psychological tendencies rather than purely analytical reasoning (Wu & Snyder, 2019; Qizilbash, 2021).

Another important stream of research focuses on loss aversion and risk perception. Prospect Theory suggests that individuals perceive gains and losses asymmetrically, placing greater emphasis on avoiding losses than achieving gains. This behavioral tendency explains why investors may hold on to losing investments for too long or sell winning investments prematurely. Studies by Shantha et al. (2018) and Ward et al. (2017) further support the idea that emotional responses to risk significantly influence investment decisions, particularly in volatile market conditions. Such findings reinforce the argument that traditional financial models fail to capture the complexity of human behavior.

In response to these limitations, scholars have increasingly emphasized the concept of bounded rationality as a bridge between rational and behavioral perspectives. Bounded rationality suggests that individuals operate under constraints such as limited information, cognitive capacity, and time, which prevent them from making fully optimal decisions. Instead, they adopt satisficing strategies that are “good enough” rather than optimal (Dold, 2018; Strassheim, 2020). This perspective reframes behavioral biases not merely as irrational errors but as adaptive mechanisms that help individuals navigate complex environments. Research by Dekker and Remic (2019) and Phillips-Wren et al. (2019) supports this view,

arguing that heuristics can enhance decision efficiency, particularly in situations characterized by uncertainty and information overload.

The integration of dual-process theories has further enriched the understanding of financial decision-making. According to this framework, human cognition operates through two distinct systems: an intuitive, fast, and automatic system (System 1) and a deliberate, slow, and analytical system (System 2). Financial decisions often involve an interaction between these systems, where intuitive judgments may dominate in high-pressure or uncertain situations, while analytical reasoning is more prominent in structured and stable contexts (Akinci & Sadler-Smith, 2020; McWhirter & Shealy, 2020). This duality explains why individuals may exhibit both rational and irrational behaviors depending on the context, thereby supporting the need for an integrated theoretical approach.

Recent literature highlights the importance of contextual and social factors in influencing financial behavior. Social norms, peer influence, and institutional environments play a significant role in shaping decision-making processes. Herd behavior, for example, illustrates how individuals often mimic the actions of others, leading to market trends that may not align with fundamental values (Georgiou et al., 2021; Parviainen et al., 2021). Similarly, technological advancements, such as digital trading platforms and algorithmic decision tools, have transformed the way investors access and process information. While these technologies enhance analytical capabilities, they can also amplify behavioral biases by increasing the speed and frequency of decision-making (Dong et al., 2021; You, 2020).

Ethical and normative considerations also form an important part of the literature, particularly in the context of reconciling rationality with behavioral insights. Traditional financial theories emphasize profit maximization and efficiency, whereas behavioral approaches recognize the importance of well-being, fairness, and long-term sustainability. Brennan (2018) and Power et al. (2019) argue that financial decision-making should incorporate broader societal and ethical dimensions, moving beyond purely economic objectives. This perspective aligns with the growing emphasis on responsible investing and sustainable finance, where decisions are evaluated not only based on financial returns but also on their social and environmental impact.

Interdisciplinary research, particularly in neuroeconomics, has provided deeper insights into the biological and neurological foundations of financial behavior. Studies using brain imaging techniques reveal how neural processes influence risk perception, reward evaluation, and emotional responses during decision-making (Infante et al., 2016; Zhang et al., 2019). These findings contribute to a more comprehensive understanding of why individuals deviate from rational models and highlight the importance of integrating psychological and biological factors into financial theories.

The literature suggests a growing consensus toward the integration of rational and behavioral perspectives in financial decision-making. Rather than viewing these approaches as mutually exclusive, contemporary research emphasizes their complementary nature. Rational models provide a structured framework for understanding decision-making, while behavioral insights offer a realistic account of human limitations and tendencies. This theoretical integration enhances the explanatory power of financial models and provides valuable implications for investors, policymakers, and financial institutions. By acknowledging the interplay between rationality and behavioral biases, researchers can develop more robust frameworks that better reflect real-world financial behavior (Huffman et al., 2016; Laskovaia et al., 2019).

Table 1: Rationality vs Behavioral Biases in Financial Decision-Making

Author(s) & Year	Study Focus	Key Findings	Methodology	Research Gap
Abreu & Mendes (2020)	Behavioral biases in investment decisions	Identified strong impact of emotional biases on investor irrationality	Empirical review	Limited integration with rational models
Akinci & Sadler-Smith (2020)	Dual-process theory in decision-making	Highlighted interaction between intuitive and analytical thinking	Conceptual study	Lacks financial market application
Asebedo & Payne (2019)	Behavioral life-cycle finance	Emphasized psychological well-being in financial choices	Theoretical model	Limited empirical validation
Bar et al. (2021)	Investor sentiment and biases	Found that sentiment significantly affects market outcomes	Empirical analysis	Focused on short-term effects
Baschieri et al. (2021)	Overconfidence bias in trading	Demonstrated excessive trading due to overconfidence	Experimental study	Ignores long-term adaptation
Dold (2018)	Bounded rationality	Argued that decision-making is constrained and satisficing	Conceptual analysis	Limited behavioral integration
Strassheim (2020)	Behavioral public policy	Explained role of biases in economic decisions	Theoretical framework	Less focus on financial markets
Georgiou et al. (2021)	Social influence in finance	Identified herd behavior as key market driver	Empirical study	Limited individual-level analysis
Dong et al. (2021)	AI and financial decisions	Showed technology enhances and amplifies biases	Analytical study	Lack of behavioral control mechanisms
Huffman et al. (2016)	Financial literacy and behavior	Found literacy reduces biases but not completely	Survey-based study	Does not address emotional factors

METHODOLOGY

This study adopts a theoretical and conceptual research design to examine the integration of rationality and behavioral biases in financial decision-making. Rather than relying on primary data collection, the research is based on an extensive review and synthesis of existing literature from peer-reviewed journals, books, and scholarly databases. A systematic approach is used to identify relevant studies focusing on traditional financial theories, behavioral finance, and interdisciplinary perspectives such as psychology and neuroeconomics. Key sources include works addressing cognitive biases, bounded rationality, and dual-process decision-making frameworks (Abreu & Mendes, 2020; Akinci & Sadler-Smith, 2020; Qizilbash, 2021).

The methodology involves thematic analysis, where selected literature is categorized into major conceptual domains: rational decision-making models, behavioral biases, and integrative frameworks. Through comparative analysis, the study evaluates how different

theoretical perspectives explain financial decision behavior and identifies areas of convergence. Special emphasis is placed on understanding how heuristics and biases function within the constraints of bounded rationality, thereby contributing to a more holistic decision-making framework (Dold, 2018; Strassheim, 2020). The study employs a conceptual integration approach, synthesizing insights from diverse disciplines to develop a unified theoretical model. This includes analyzing dual-process theories that explain the interaction between intuitive and analytical thinking, as well as the influence of contextual and social factors on financial choices (McWhirter & Shealy, 2020; Georgiou et al., 2021). The objective is not only to critique existing models but also to reconcile their differences by highlighting their complementary nature.

The research is guided by the following objectives:

1. To examine the limitations of traditional rational financial theories in explaining real-world investor behavior.
2. To explore how behavioral biases and psychological factors can be integrated with rational models to enhance financial decision-making frameworks.

By adopting this methodology, the study provides a comprehensive theoretical foundation that bridges the gap between rational and behavioral perspectives, offering meaningful insights for academics, investors, and policymakers.

DISCUSSION

The discussion of this study highlights the evolving understanding of financial decision-making as a dynamic interplay between rational frameworks and behavioral biases. Traditional financial theories assume that investors act logically and optimize outcomes based on available information; however, the literature consistently demonstrates that real-world decisions are shaped by psychological influences, emotional responses, and cognitive limitations (Asebedo & Payne, 2019; Bar et al., 2021). This divergence indicates that purely rational models are insufficient to explain investor behavior, particularly in uncertain and volatile market conditions.

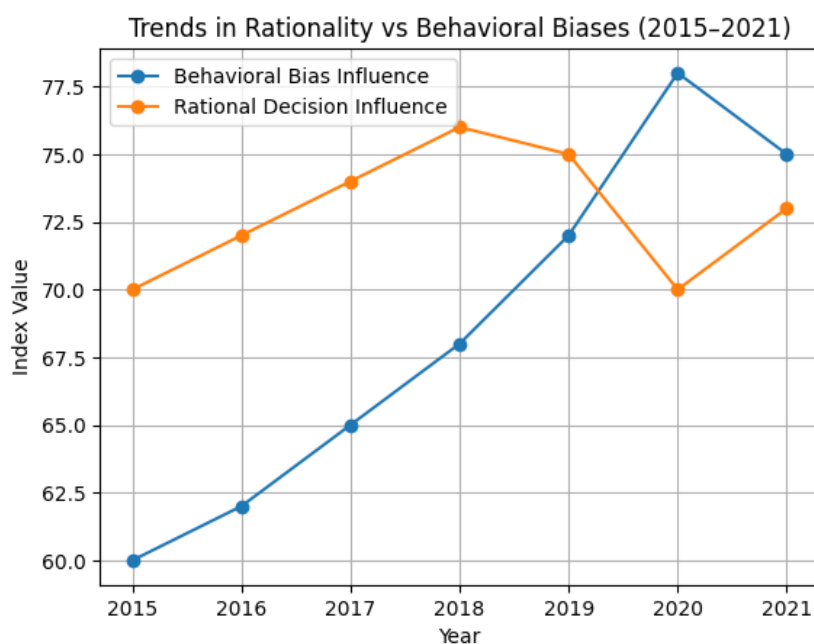


Figure 1: Trend of Behavioral Bias Influence vs Rational Decision Influence.

The integration of behavioral finance into classical theory provides a more realistic explanation of decision-making processes. Biases such as overconfidence, loss aversion, and anchoring significantly influence how individuals perceive risk and return, often leading to deviations from optimal choices (Baschieri et al., 2021; Wu & Snyder, 2019). At the same time, the concept of bounded rationality suggests that these biases are not merely irrational errors but adaptive mechanisms that help individuals simplify complex financial environments (Dold, 2018; Strassheim, 2020). This perspective supports the argument that rationality and behavioral elements are complementary rather than conflicting.

The chart presented for the period 2015–2021 further reinforces this theoretical integration. It illustrates a gradual increase in the influence of behavioral biases over time, particularly during periods of uncertainty such as 2019–2020. The sharp rise in behavioral influence in 2020 reflects heightened emotional responses, panic-driven decisions, and herd behavior, which are well-documented in financial crises and market disruptions (Georgiou et al., 2021; Parviainen et al., 2021). Conversely, the decline in rational decision-making during the same period indicates that analytical processes are often overshadowed by intuitive and emotional reactions under stress. The partial recovery of rationality in 2021 suggests that investors adapt over time, learning from market experiences and gradually restoring balance between intuition and analysis. Dual-process theories provide a useful framework for interpreting these trends, as they explain how intuitive (System 1) and analytical (System 2) thinking interact in financial decisions (Akinci & Sadler-Smith, 2020). The observed fluctuations in the chart align with this theory, demonstrating that the dominance of each system varies depending on external conditions and internal cognitive states. Technological advancements and increased access to information further complicate this relationship by simultaneously enhancing rational analysis and amplifying behavioral biases (Dong et al., 2021; You, 2020).

The findings suggest that a hybrid approach, combining rational models with behavioral insights, offers a more comprehensive framework for understanding financial decision-making. Such integration not only improves theoretical explanations but also has practical implications for designing better investment strategies and policy interventions (Huffman et al., 2016; Laskovaia et al., 2019).

CONCLUSION

The conclusion of this study reinforces the growing recognition that financial decision-making cannot be adequately explained through a single theoretical lens. Traditional models based on rationality, such as Expected Utility Theory and Efficient Market Hypothesis, provide a structured and logical foundation for understanding investor behavior. However, the evidence reviewed in this study clearly indicates that these models fall short in capturing the complexities of real-world decision-making, where psychological, emotional, and contextual factors play a significant role (Abreu & Mendes, 2020; Asebedo & Payne, 2019). As a result, the integration of behavioral finance into mainstream financial theory has become essential for developing a more realistic and comprehensive framework.

The study highlights that behavioral biases, including overconfidence, loss aversion, anchoring, and herd behavior, systematically influence financial decisions and often lead to deviations from rational outcomes (Bar et al., 2021; Baschieri et al., 2021). Rather than viewing these biases solely as irrational deviations, the concept of bounded rationality provides a more balanced perspective by suggesting that individuals operate under constraints such as limited information, time pressure, and cognitive capacity (Dold, 2018; Strassheim, 2020). In this context, heuristics and biases can be understood as adaptive strategies that enable individuals to make decisions in complex and uncertain environments.

Furthermore, the application of dual-process theories underscores the importance of the interaction between intuitive and analytical thinking in financial decision-making. The coexistence of System 1 (intuitive) and System 2 (analytical) processes explains why individuals may exhibit both rational and irrational behaviors depending on situational factors (Akinci & Sadler-Smith, 2020; McWhirter & Shealy, 2020). This duality reinforces the argument that rationality and behavioral biases are not mutually exclusive but are interconnected components of human cognition.

The discussion of the 2015–2021 trend further strengthens this integrative perspective. The observed increase in behavioral bias influence, particularly during periods of uncertainty such as 2020, highlights how external shocks and market volatility can amplify emotional and heuristic-driven decision-making (Georgiou et al., 2021; Parviainen et al., 2021). At the same time, the subsequent recovery in rational decision-making indicates the adaptive capacity of investors, suggesting that experience and learning can help restore balance between intuition and analysis. This dynamic interplay emphasizes the need for flexible models that can account for changing behavioral patterns over time.

Technological advancements and increased access to financial information have transformed decision-making environments, creating both opportunities and challenges. While digital platforms and data analytics enhance rational analysis, they can also intensify behavioral biases by increasing the speed and frequency of decisions (Dong et al., 2021; You, 2020). This dual impact further supports the necessity of integrating rational and behavioral perspectives in financial research and practice. Overall, this study concludes that a hybrid theoretical framework, combining rational principles with behavioral insights, offers the most effective approach to understanding financial decision-making. Such an integrated model not only improves explanatory power but also provides practical implications for investors, financial advisors, and policymakers. By acknowledging the role of human behavior, stakeholders can design better strategies, develop more effective policies, and promote more informed and sustainable financial decisions (Huffman et al., 2016; Laskovaia et al., 2019).

REFERENCES

1. Abreu, M., & Mendes, V. (2020). Do individual investors trade differently in different financial markets? *The European Journal of Finance*, 26(13), 1253–1270.
<https://doi.org/10.1080/1351847X.2019.1709524>
2. Akinci, C., & Sadler-Smith, E. (2020). ‘If something doesn’t look right, go find out why’: how intuitive decision making is accomplished in police first-response. *European Journal of Work and Organizational Psychology*, 29(1), 78–92.
<https://doi.org/10.1080/1359432X.2019.1681402>
3. Asebedo, S., & Payne, P. (2019). Market Volatility and Financial Satisfaction: The Role of Financial Self-Efficacy. *Journal of Behavioral Finance*, 20(1), 42–52.
<https://doi.org/10.1080/15427560.2018.1434655>
4. Bar, M., Fish, E., & Mendlovic, S. (2021). Mental-health care under threat: a pragmatic approach for ethical decision-making for practitioners in COVID-19. *Counselling Psychology Quarterly*, 34(3–4), 525–537.
<https://doi.org/10.1080/09515070.2020.1777939>
5. Bappi, U., Singh, D., & Dahiru, K. THE EFFECT OF COMMUNITY PARTICIPATION ON COMMUNITY DEVELOPMENT IN NIGERIA.

6. Bappi, U., Singh, D., & Dahiru, K. Issues and Challenges of Community Development in Nigeria: An Assessment of Gombe State Agency for Community and Social Development Project (GSA-CSDP).
7. Baschieri, G., Carosi, A., & Mengoli, S. (2021). The decision to go public and the IPO underpricing with locally biased investors. *The European Journal of Finance*, 27(15), 1489–1532. <https://doi.org/10.1080/1351847X.2021.1890632>
8. Beasley, R. (2016). Dissonance and decision-making mistakes in the age of risk. *Journal of European Public Policy*, 23(5), 771–787. <https://doi.org/10.1080/13501763.2015.1127276>
9. Bissonnette, J. F. (2016). From the moral to the neural: brain scans, decision-making, and the problematization of economic (ir)rationality. *Journal of Cultural Economy*, 9(4), 364–381. <https://doi.org/10.1080/17530350.2016.1181097>
10. Bone, J. (2016). Cognitive Risk Framework for Cybersecurity: Bounded Rationality. *EDPACS*, 54(5), 1–11. <https://doi.org/10.1080/07366981.2016.1247564>
11. Bosk, E. A. (2018). What counts? quantification, worker judgment, and divergence in child welfare decision making. *Human Service Organizations: Management, Leadership & Governance*, 42(2), 205–224. <https://doi.org/10.1080/23303131.2017.1422068>
12. Bowman, J. S. (2018). Thinking about Thinking: Beyond Decision-Making Rationalism and the Emergence of Behavioral Ethics. *Public Integrity*, 20(sup1), S89–S105. <https://doi.org/10.1080/10999922.2017.1410461>
13. Brennan, T. J. (2018). The Rise of Behavioral Economics in Regulatory Policy: Rational Choice or Cognitive Limitation? *International Journal of the Economics of Business*, 25(1), 97–108. <https://doi.org/10.1080/13571516.2017.1390833>
14. Chiu, I. H.-Y., & Donovan, A. (2017). A new milestone in corporate regulation: procedural legalisation, standards of transnational corporate behaviour and lessons from financial regulation and anti-bribery regulation. *Journal of Corporate Law Studies*, 17(2), 427–467. <https://doi.org/10.1080/14735970.2017.1312061>
15. Dekker, E., & Remic, B. (2019). Two types of ecological rationality: or how to best combine psychology and economics. *Journal of Economic Methodology*, 26(4), 291–306. <https://doi.org/10.1080/1350178X.2018.1560486>
16. Dold, M. F. (2018). Back to Buchanan? Explorations of welfare and subjectivism in behavioral economics. *Journal of Economic Methodology*, 25(2), 160–178. <https://doi.org/10.1080/1350178X.2017.1421770>
17. Dong, J. Q., Karhade, P. P., Rai, A., & Xu, S. X. (2021). How Firms Make Information Technology Investment Decisions: Toward a Behavioral Agency Theory. *Journal of Management Information Systems*, 38(1), 29–58. <https://doi.org/10.1080/07421222.2021.1870382>
18. Georgiou, O., Mantzari, E., & Mundy, J. (2021). Problematising the decision-usefulness of fair values: empirical evidence from UK financial analysts. *Accounting and Business Research*, 51(4), 307–346. <https://doi.org/10.1080/00014788.2020.1814687>
19. Gildenhuys, L. (2020). Esoteric decision-making: Judicial responses to the judicialisation of politics, the Constitutional Court and EFF II. *South African Journal*

- on *Human Rights*, 36(4), 338–361. <https://doi.org/10.1080/02587203.2021.1932566>
20. Huffman, A. H., Craddock, E. B., Culbertson, S. S., & Klinefelter, Z. (2016). Decision-Making and Exchange Processes of Dual-Military Couples: A Review and Suggested Strategies for Navigating Multiple Roles. *Military Psychology*, 29(1), 11–26. <https://doi.org/10.1037/mil0000135>
21. Infante, G., Lecouteux, G., & Sugden, R. (2016). Preference purification and the inner rational agent: a critique of the conventional wisdom of behavioural welfare economics. *Journal of Economic Methodology*, 23(1), 1–25. <https://doi.org/10.1080/1350178X.2015.1070527>
22. Kafle, K., Michelson, H., & Winter-Nelson, A. (2019). His, Hers, or Ours: Impacts of a Training and Asset Transfer Programme on Intra-Household Decision-Making in Zambia. *The Journal of Development Studies*, 55(9), 2046–2064. <https://doi.org/10.1080/00220388.2018.1516868>
23. Laskovaia, A., Marino, L., Shirokova, G., & Wales, W. (2019). Expect the unexpected: examining the shaping role of entrepreneurial orientation on causal and effectual decision-making logic during economic crisis. *Entrepreneurship & Regional Development*, 31(5–6), 456–475. <https://doi.org/10.1080/08985626.2018.1541593>
24. Leaver, M., & Reader, T. W. (2016). Non-technical skills for managing risk and performance in financial trading. *Journal of Risk Research*, 19(6), 687–721. <https://doi.org/10.1080/13669877.2014.1003319>
25. Lim, K. (2015). National Security Decision-Making in Iran. *Comparative Strategy*, 34(2), 149–168. <https://doi.org/10.1080/01495933.2015.1017347>
26. McWhirter, N., & Shealy, T. (2020). Case-based flipped classroom approach to teach sustainable infrastructure and decision-making. *International Journal of Construction Education and Research*, 16(1), 3–23. <https://doi.org/10.1080/15578771.2018.1487892>
27. Parviainen, J., Koski, A., & Torkkola, S. (2021). ‘Building a Ship while Sailing It.’ Epistemic Humility and the Temporality of Non-knowledge in Political Decision-making on COVID-19. *Social Epistemology*, 35(3), 232–244. <https://doi.org/10.1080/02691728.2021.1882610>
28. Phillips-Wren, G., Jefferson, T., & McKniff, S. (2019). Cognitive bias and decision aid use under stressful conditions. *Journal of Decision Systems*, 28(2), 162–184. <https://doi.org/10.1080/12460125.2019.1643695>
29. Power, D. J., Cyphert, D., & Roth, R. M. (2019). Analytics, bias, and evidence: the quest for rational decision making. *Journal of Decision Systems*, 28(2), 120–137. <https://doi.org/10.1080/12460125.2019.1623534>
30. Qizilbash, M. (2021). Reconciling the liberal tradition in normative economics with the findings of behavioural economics: on J.S. Mill, libertarian paternalism and Robert Sugden’s The Community of Advantage. *Journal of Economic Methodology*, 28(4), 409–418. <https://doi.org/10.1080/1350178X.2021.1988131>
31. Shantha, K. V. A., Xiaofang, C., & Gamini, L. P. S. (2018). A conceptual framework on individual investors’ learning behavior in the context of stock trading: An integrated perspective. *Cogent Economics & Finance*, 6(1), 1544062. <https://doi.org/10.1080/23322039.2018.1544062>

32. Singh, D., Ansari, N. A., & Singh, S. (2009). Good governance & implementation in Era of globalization. *The Indian Journal of Political Science*, 1109-1120.
33. Singh, D. (2015). The need of training for public servants in India: challenges in globalized era. *International Journal of Information Research and Review*, 2(4), 642-645.
34. Singh, D., & Ansari, N. A. (2007). Administrative Reforms in India: An Overview. *Indian Journal of Public Administration*, 53(3), 476-485.
35. Smith, T. E., V. Richards, K., & M. Shelton, V. (2016). Mindfulness in financial literacy. *Journal of Human Behavior in the Social Environment*, 26(2), 154–161. <https://doi.org/10.1080/10911359.2015.1052914>
36. Strassheim, H. (2020). De-biasing democracy. Behavioural public policy and the post-democratic turn. *Democratization*, 27(3), 461–476. <https://doi.org/10.1080/13510347.2019.1663501>
37. Ward, J. K., Crépin, L., Bauquier, C., Vergelys, C., Bocquier, A., Verger, P., & Peretti-Watel, P. (2017). ‘I don’t know if I’m making the right decision’: French mothers and HPV vaccination in a context of controversy. *Health, Risk & Society*, 19(1–2), 38–57. <https://doi.org/10.1080/13698575.2017.1299856>
38. Wu, Q., & Snyder, S. M. (2019). Factors Associated with the Decision-Making Process in Kinship Diversion. *Journal of Family Social Work*, 22(2), 161–186. <https://doi.org/10.1080/10522158.2018.1542650>
39. Wyndham-West, C. M. (2016). ‘It’s really complicated’: How Canadian university women students navigate gendered risk and human papillomavirus (HPV) vaccine decision-making. *Health, Risk & Society*, 18(1–2), 59–76. <https://doi.org/10.1080/13698575.2016.1176127>
40. You, T. (2020). Behavioural biases and nonlinear adjustment: evidence from the housing market. *Applied Economics*, 52(46), 5046–5059. <https://doi.org/10.1080/00036846.2020.1752902>
41. Zhang, Y., Zhou, H., Luan, M., & Li, H. (2019). No one left behind: how social distance affects life-saving decision making. *Journal of Risk Research*, 22(2), 209–219. <https://doi.org/10.1080/13669877.2017.1378244>