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Overconfidence Bias in Everyday Decision-Making: A Literature Review

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I. INTRODUCTION

To date, overconfidence bias is widely recognised as one of the most pervasive and influential behavioural distortions affecting human judgment and decision-making, as it reflects a systematic tendency for individuals to overestimate their knowledge, abilities, or control over outcomes, often leading to suboptimal choices (Kahneman, 2011; Moore & Healy, 2008). On the one hand, traditional economic theory is grounded in the assumption of fully rational agents who make decisions to maximise utility, but on the other, insights from behavioural economics challenge this view by demonstrating that cognitive biases, including overconfidence, consistently shape real-world behaviour (Tversky & Kahneman, 1974). Thus, although the phenomenon has been extensively studied in financial contexts, particularly in relation to trading behaviour, investment decisions, and corporate finance, its role in everyday decision-making remains comparatively underexplored and this creates a gap in understanding how overconfidence operates across both financial and non-financial domains (Barber & Odean, 2001; Malmendier & Tate, 2005). As a result, this paper addresses three key questions, starting with how overconfidence is defined and categorised in existing literature, and then it focuses on how it influences decision-making in financial versus everyday contexts, and finally on what psychological and structural mechanisms sustain this bias. Understanding overconfidence is critical due to its far-reaching implications. At the individual level, it can lead to poor financial and life decisions, but at the systemic level, it contributes to market inefficiencies and instability (Scheinkman & Xiong, 2003). This information is also vital for designing effective policy and regulatory interventions grounded in behavioural realities.

Conceptual Foundations of Overconfidence

One needs to note that overconfidence is a central construct in behavioural decision-making, and it is defined as the systematic overestimation of one's knowledge, abilities, or degree of control over outcomes (Moore & Healy, 2008). Unlike random error, it represents a persistent cognitive bias that distorts judgment under uncertainty and individuals exhibiting overconfidence tend to place unwarranted faith in their information, forecasts, and skills, often underestimating risks and alternative possibilities (Kahneman, 2011).

The literature identifies three distinct but related forms of overconfidence. The first is overestimation, which often refers to an inflated belief in one's actual ability or performance, for instance, investors believing they can consistently outperform the market. Then comes overprecision, which captures excessive certainty in the accuracy of one's beliefs, typically reflected in overly narrow confidence intervals around predictions. Lastly, overplacement, often termed the "better-than-average effect," describes the tendency of individuals to believe they are superior to others, even in domains where such superiority is statistically improbable (Moore & Healy, 2008). The theoretical foundations of overconfidence lie in cognitive psychology, particularly within the heuristics and biases framework developed by Tversky and Kahneman (1974). This perspective highlights how mental shortcuts, while efficient, can lead to systematic deviations from rationality and behavioural finance extends these insights into economic contexts, demonstrating how overconfidence influences market behaviour, asset pricing, and corporate decision-making (Barber & Odean, 2001).

Empirically, overconfidence is measured through several approaches. To begin with, calibration tests assess the alignment between subjective confidence and objective accuracy, while at the same time, confidence interval tasks examine whether individuals provide ranges that are too narrow relative to true outcomes (Lichtenstein et al., 1982). Additionally, one can see that comparisons between self-assessed performance and actual results reveal persistent overestimation. It is important to distinguish overconfidence from related biases. Another important factor is optimism bias, which involves overestimating favourable outcomes rather than one's own abilities (Weinstein, 1980). The illusion of control reflects a belief in influencing uncontrollable events, while self-attribution bias furthers overconfidence by attributing successes to internal factors and failures to external causes (Langer, 1975; Miller & Ross, 1975). Together, these distinctions clarify overconfidence as a multifaceted and deeply embedded cognitive bias.

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Drivers of Overconfidence Bias

Overconfidence bias is driven by a combination of cognitive, psychological, social, and demographic factors that interact to reinforce distorted self-perceptions because from a cognitive perspective, individuals operate under limited information-processing capacity. This is why, they end up relying on heuristics such as availability and representativeness to make judgments under uncertainty, and these mental shortcuts often lead individuals to overweighing recent or vivid information and drawing overly confident conclusions from small or unrepresentative samples (Tversky & Kahneman, 1974). Additionally, Emotional and psychological factors further amplify overconfidence as individuals are motivated by ego protection and a desire for self-enhancement, which in return, ends up leading them to maintain a positive self-image even in the face of contradictory evidence. This tendency encourages inflated beliefs about one's abilities and decision-making competence (Alicke & Govorun, 2005). Here, learning processes and feedback mechanisms also play a critical role as individuals tend to engage in selective learning, attributing successes to their own skill while discounting failures as external or random and this asymmetric feedback processing further strengthens confidence levels over time, even when performance does not justify it (Daniel et al., 1998).

After that, social and cultural contexts further shape overconfidence as competitive environments, such as financial markets or corporate settings, reward assertiveness and confidence, which often then results in backing biased self-perceptions. Besides, social comparison effects lead individuals to overrate their abilities relative to others, contributing to overplacement (Festinger, 1954). Finally, demographic factors influence the degree of overconfidence because, as empirical evidence suggests, men tend to exhibit higher levels of overconfidence in financial decision-making compared to women (Barber & Odean, 2001). Moreover, the experience paradox indicates that expertise does not necessarily mitigate overconfidence as in some cases, experts become more overconfident due to accumulated but selectively interpreted knowledge (Glaser & Weber, 2007).

Overconfidence in Financial Decision-Making

Overconfidence bias plays a central role in shaping financial decision-making across individual, institutional, and market levels. In trading behaviour, overconfident investors tend to engage in excessive trading, driven by an inflated belief in their ability to time the market and identify mispriced assets. This often leads to an underestimation of risk and transaction costs. Empirical evidence consistently shows that higher portfolio turnover is associated with lower net returns, as frequent trading erodes gains (Barber & Odean, 2000).

In the context of investment decisions, overconfidence manifests in the overestimation of stock-picking ability and an exaggerated belief in one's forecasting skills. Investors often rely on limited information and exhibit poor diversification, concentrating portfolios in familiar or perceived "high-confidence" assets. This behaviour increases exposure to idiosyncratic risk and undermines long-term performance (Goetzmann & Kumar, 2008). At the corporate level, managerial overconfidence significantly influences financial policy. Overconfident CEOs tend to overestimate future cash flows and project success, leading to overinvestment and value-destructive mergers and acquisitions. Such executives are also more likely to adopt aggressive capital structures, underestimating financial distress risks and relying excessively on debt financing (Malmendier & Tate, 2005).

Overconfidence also affects personal finance decisions. Individuals may engage in over-borrowing, believing they can manage future repayment capacity, while simultaneously under-saving for retirement due to unrealistic expectations about future income or investment returns. Additionally, many individuals misjudge their financial literacy, leading to poor financial planning and suboptimal asset allocation (Lusardi & Mitchell, 2014). At the market level, the aggregation of overconfident behaviours contributes to broader systemic effects. These include the formation of asset price bubbles, increased market volatility, and persistent mispricing of securities. Overconfidence thus not only affects individual outcomes but also undermines overall market efficiency (Scheinkman & Xiong, 2003).

Overconfidence in Everyday Consumer Behaviour

While overconfidence has been extensively examined in financial contexts, its influence extends deeply into everyday consumer behaviour, shaping decisions across consumption, health, career, and digital environments. In consumption decisions, individuals often overestimate their ability to evaluate products, relying on limited information or superficial cues. This inflated confidence can lead to suboptimal purchasing decisions and susceptibility to marketing tactics. Additionally, a perceived sense of control over outcomes contributes to impulse buying, as consumers believe they can manage the consequences of their choices (Chernev, 2003).

In the domain of health, overconfidence manifests as an overestimation of personal health knowledge, prompting individuals to self-diagnose or disregard professional medical advice. This can result in delayed treatment or inappropriate health behaviours, particularly in contexts where individuals rely on anecdotal or online information (Dunning et al., 2004). Overconfidence also plays a critical role in career and education decisions.

Individuals frequently overestimate their employability or future job prospects, leading to mismatches between expectations and actual outcomes. Similarly, misjudging one's skills and competencies can result in poor educational investments or career choices, with long-term consequences for earnings and job satisfaction (Kruger & Dunning, 1999).

In digital environments, overconfidence is increasingly relevant. Users tend to be overconfident in their ability to detect misinformation, making them vulnerable to false or misleading content. This bias also contributes to risky online behaviour, such as oversharing personal information or underestimating cybersecurity threats (Pennycook & Rand, 2019). Finally, overconfidence influences risk-taking in daily life, including driving and gambling behaviours. Overconfident drivers often underestimate accident risks, while gamblers may overestimate their ability to predict outcomes in games of chance. These behaviours highlight the pervasive and often costly consequences of overconfidence beyond financial decision-making (Svenson, 1981).

Mechanisms and Bias Reinforcement

Overconfidence bias is not static as it is continuously reinforced through underlying cognitive mechanisms that distort learning and decision-making. A key driver is self-attribution bias, whereby individuals attribute successes to their own skill while assigning failures to external factors such as luck or market conditions. This asymmetric attribution strengthens confidence even in the absence of consistent performance (Miller & Ross, 1975). Confirmation bias further reinforces overconfidence by leading individuals to selectively seek, interpret, and recall information that aligns with their pre-existing beliefs. Contradictory evidence is often ignored or discounted, resulting in a skewed perception of accuracy and competence (Nickerson, 1998).

Another important mechanism is the illusion of control, where individuals believe they can influence outcomes that are largely determined by chance. This is particularly evident in domains such as investing, gambling, and forecasting, where perceived skill is overstated relative to actual control (Langer, 1975). Feedback distortion also plays a crucial role. In many real-world settings, feedback is delayed, noisy, or ambiguous, making it difficult to accurately assess performance. This allows overconfidence to persist and even grow over time. Together, these mechanisms create an overconfidence trap: initial success boosts confidence, leading to increasingly risky decisions, which may eventually result in significant losses. However, the reinforcing cycle often delays corrective learning, sustaining the bias (Gervais & Odean, 2001).

Consequences and Welfare Implications

The consequences of overconfidence bias extend beyond isolated decision errors, generating significant welfare implications at individual, market, and societal levels. At the individual level, overconfidence often results in financial losses, particularly through excessive trading, poor investment choices, and over-leveraging. Beyond finance, it contributes to suboptimal life decisions, including misguided career choices, health misjudgments, and consumption inefficiencies. Over time, these patterns can lead to reduced long-term well-being, as individuals systematically overestimate their ability to manage risks and outcomes (Barber & Odean, 2000; Dunning et al., 2004).

At the market level, the aggregation of overconfident behaviour undermines market efficiency. Overconfident investors contribute to mispricing of assets, excessive trading volume, and deviations from fundamental values. This behaviour amplifies market volatility and can increase systemic risk, particularly during periods of speculative excess or financial bubbles (Scheinkman & Xiong, 2003).

From a broader societal perspective, overconfidence leads to the misallocation of resources, as capital and effort are directed toward overvalued opportunities or poorly assessed risks. It can also contribute to policy failures, especially when decision-makers overestimate the effectiveness of interventions or underestimate potential risks. In this sense, overconfidence is not merely an individual cognitive bias but a structural factor with wide-ranging economic and social consequences.

Mitigation Strategies

Mitigating overconfidence bias requires a multi-level approach that combines individual awareness, institutional design, and technological support. At the individual level, financial literacy programs play a crucial role in aligning perceived and actual knowledge, helping individuals make more informed decisions. Complementing this, decision checklists can reduce impulsive judgments by encouraging structured thinking, while feedback mechanisms, such as performance tracking, enable individuals to calibrate confidence with actual outcomes (Larrick, 2004). At the institutional level, regulatory safeguards are essential to protect individuals from the adverse consequences of overconfidence, particularly in financial markets. Policies that enhance disclosure, transparency, and risk warnings can curb excessive risk-taking. Additionally, default options, or behavioural "nudges," such as automatic enrollment in retirement savings plans, help counteract overconfidence-driven inertia or misjudgment (Thaler & Benartzi, 2004).

Behavioural design solutions further address the cognitive roots of overconfidence. Framing effects can influence how choices are perceived, encouraging more cautious decision-making, while debiasing techniques, such as prompting individuals to consider alternative scenarios or "pre-mortem" analyses, reduce unwarranted certainty (Kahneman, 2011). Finally, technology offers promising tools for mitigation. AI-assisted decision systems can provide objective, data-driven recommendations that counter subjective biases, while data-driven feedback systems enable continuous learning by highlighting discrepancies between expectations and outcomes. Together, these strategies offer a comprehensive framework to manage overconfidence across contexts.

Gaps in Literature and Future Research Directions

Despite there being extensive research on overconfidence, several critical gaps remain to be seen in the existing literature. Firstly, there is a lack of integration between financial decision-making and everyday consumer behaviour, with most studies examining these domains in isolation, which limits a holistic understanding of how overconfidence operates across contexts. Secondly, existing literature is heavily concentrated in developed economies, resulting in limited evidence from emerging markets, where institutional structures, financial literacy, and cultural norms may significantly alter behavioural patterns (Henrich et al., 2010). Thirdly, the role of digital environments, including social media, algorithmic decision-making, and online information ecosystems, remains underexplored, despite their growing influence on behaviour. Future research should adopt cross-cultural approaches to capture contextual variations in overconfidence and its effects. Longitudinal studies are also needed to examine how overconfidence evolves over time and across life stages. Additionally, the interaction between artificial intelligence and behavioural biases presents a promising avenue, particularly in understanding whether technology mitigates or amplifies bias. Finally, greater emphasis should be placed on policy design incorporating behavioural insights to develop more effective interventions.

II. CONCLUSION

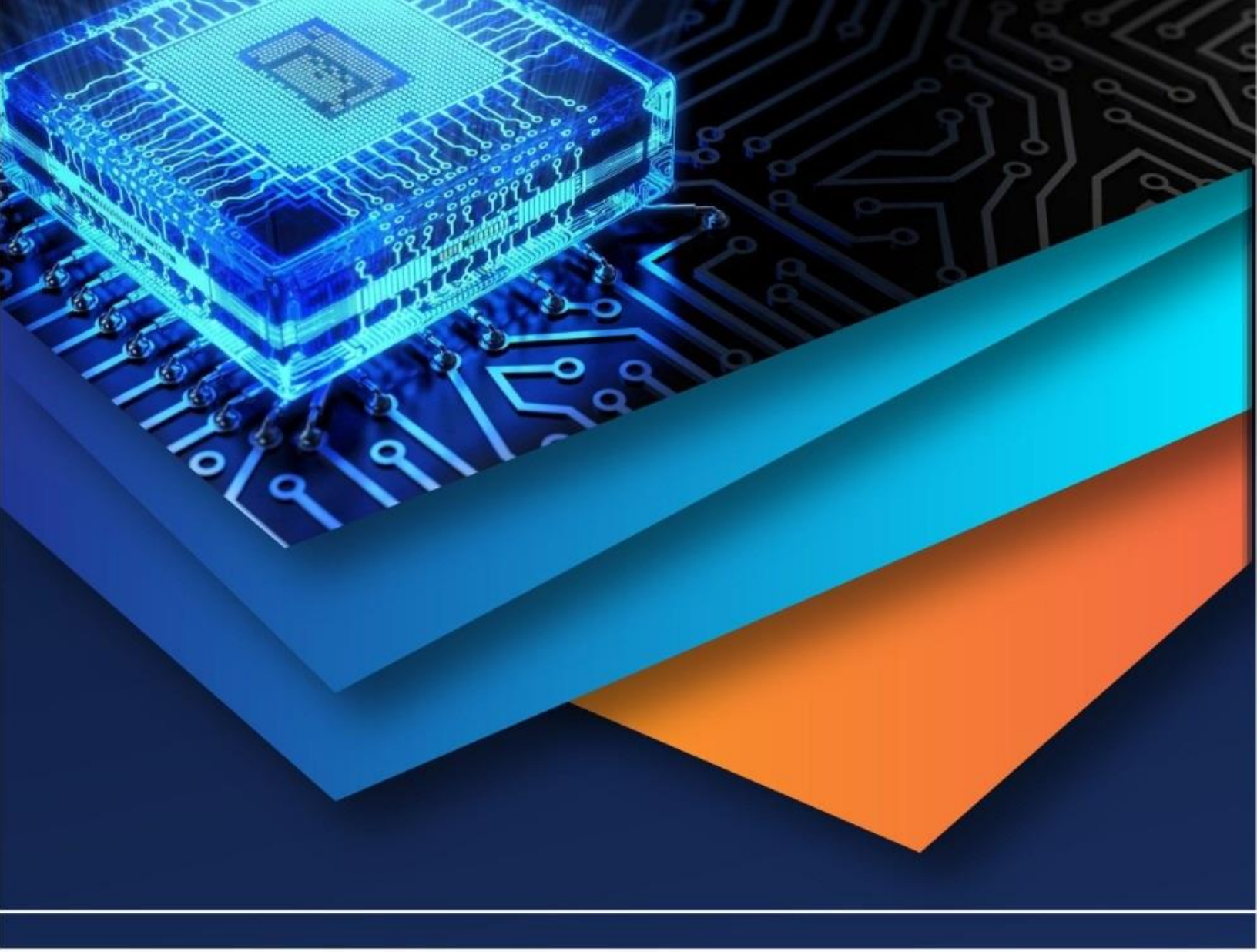
Overconfidence bias remains a fundamental and pervasive influence on human decision-making, shaping outcomes across both financial and everyday contexts. As demonstrated, its effects extend beyond markets into consumption, health, career, and digital behaviour, underscoring its ubiquity. The persistence of this bias highlights the limitations of purely rational models and fortifies the need for interdisciplinary research integrating insights from finance, psychology, and behavioural science. Ultimately, overconfidence is not merely a financial anomaly but a systemic human tendency that influences real-world outcomes, making its understanding and mitigation essential for improving individual welfare, market efficiency, and policy effectiveness.

REFERENCES

[1] Alicke, M. D., & Govorun, O. (2005). The better-than-average effect. In M. D. Alicke, D. A. Dunning, & J. I. Krueger (Eds.), The self in social judgment (pp. 85–106). Psychology Press.
[2] Barber, B. M., & Odean, T. (2000). Trading is hazardous to your wealth: The common stock investment performance of individual investors. Journal of Finance, 55(2), 773–806.
[3] Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. Quarterly Journal of Economics, 116(1), 261–292.
[4] Chernev, A. (2003). When more is less and less is more: The role of ideal point availability and assortment in consumer choice. Journal of Consumer Research, 30(2), 170–183.
[5] Daniel, K., Hirshleifer, D., & Subrahmanyam, A. (1998). Investor psychology and security market under- and overreactions. Journal of Finance, 53(6), 1839–1885.
[6] Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed self-assessment: Implications for health, education, and the workplace. Psychological Science in the Public Interest, 5(3), 69–106.
[7] Festinger, L. (1954). A theory of social comparison processes. Human Relations, 7(2), 117–140.
[8] Gervais, S., & Odean, T. (2001). Learning to be overconfident. Review of Financial Studies, 14(1), 1–27.
[9] Glaser, M., & Weber, M. (2007). Overconfidence and trading volume. Geneva Risk and Insurance Review, 32(1), 1–36.
[10] Goetzmann, W. N., & Kumar, A. (2008). Equity portfolio diversification. Review of Finance, 12(3), 433–463.
[11] Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? Behavioral and Brain Sciences, 33(2–3), 61–83.
[12] Kahneman, D. (2011). Thinking, fast and slow. Farrar, Straus and Giroux.
[13] Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. Journal of Personality and Social Psychology, 77(6), 1121–1134.
[14] Langer, E. J. (1975). The illusion of control. Journal of Personality and Social Psychology, 32(2), 311–328.
[15] Larrick, R. P. (2004). Debiasing. In D. J. Koehler & N. Harvey (Eds.), Blackwell handbook of judgment and decision making (pp. 316–337). Blackwell Publishing.
[16] Lichtenstein, S., Fischhoff, B., & Phillips, L. D. (1982). Calibration of probabilities: The state of the art to 1980. In D. Kahneman, P. Slovic, & A. Tversky (Eds.), Judgment under uncertainty: Heuristics and biases (pp. 306–334). Cambridge University Press.
[17] Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. Journal of Economic Literature, 52(1), 5–44.
[18] Malmendier, U., & Tate, G. (2005). CEO overconfidence and corporate investment. Journal of Finance, 60(6), 2661–2700.

[19] Miller, D. T., & Ross, M. (1975). Self-serving biases in the attribution of causality. Psychological Bulletin, 82(2), 213–225.
[20] Moore, D. A., & Healy, P. J. (2008). The trouble with overconfidence. Psychological Review, 115(2), 502–517.
[21] Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. Review of General Psychology, 2(2), 175–220.
[22] Pennycook, G., & Rand, D. G. (2019). Lazy, not biased: Susceptibility to partisan fake news is better explained by lack of reasoning than by motivated reasoning. Cognition, 188, 39–50.
[23] Scheinkman, J. A., & Xiong, W. (2003). Overconfidence and speculative bubbles. Journal of Political Economy, 111(6), 1183–1220.
[24] Svenson, O. (1981). Are we all less risky and more skillful than our fellow drivers? Acta Psychologica, 47(2), 143–148.
[25] Thaler, R. H., & Benartzi, S. (2004). Save more tomorrow™: Using behavioral economics to increase employee saving. Journal of Political Economy, 112(S1), S164–S187.
[26] Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185(4157), 1124–1131.
[27] Weinstein, N. D. (1980). Unrealistic optimism about future life events. Journal of Personality and Social Psychology, 39(5), 806–820.

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