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The Influence of Loss Aversion and Framing Effect on Economic Behavior

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Abstract. This paper looks at the framing effect and loss aversion, two major cognitive biases in behavioural economics. The tendency for people to view losses as more painful than comparable profits is known as loss aversion, and it influences how they behave in the stock market and while saving for retirement. Due to increased sensitivity to losses and feedback frequency, people frequently make less-than-ideal financial decisions, according to empirical research, such as that conducted on myopic loss aversion and the analysis of investor trading histories. The framing effect also emphasises how decisions are influenced by various ways that the same information is presented. Framing influences choices even among specialists and across socially crucial problems, as evidenced by political polls and medical decision-making. All of these results demonstrate that risk sensitivity and linguistic framing have a significant impact on human decision-making, which consistently departs from the rational choice assumption. These biases have significant practical implications since they impact fields including public policy, healthcare, and finance in addition to laboratory settings. This study highlights the mechanisms and applications of these biases by synthesising research from many domains, providing insights for academics, practitioners, and policymakers.

Keywords: Loss aversion, framing effect, behavioral economics

1. Introduction

Traditional economists used to think that people always make logical, rational decisions. But in real life, humans often make choices that don't follow this logic. The field of behavioral economics studies these quirks known as cognitive biases. Two of the most important ones are loss aversion and framing effect. Loss Aversion is the idea that, people feel the pain of a loss more strongly than the joy of an equivalent gain. Similarly, the framing effect means that how a choice is presented affects people's decision [1].

These ideas are not just theoretical. In fact, they have real-world importance. They influence how consumers spend, how governments create policies, and how financial markets behave. They shape the decisions of individuals and groups across diverse contexts. This study aims to provide an overview of the mechanisms and applications of these two biases through a literature-based review.

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2. Introduction of research objects

Loss aversion is different from the traditional economic assumption of "rational man maximizes utility". It shows that individuals tend to assign greater psychological weight to losses when facing risks. People experience larger pain from a loss of 100 dollars than pleasure from a gain of 100 dollar, which means that the psychological impact of loss is approximately twice that of equivalent gain [2]. Loss aversion is not an accident, but a universal feature of all humans.

The framing effect refers to the fact, that even if the content is exactly the same, people's choices will still be influenced by the way the information is presented. This concept was first verified through the "Asian disease problem" [1]. In the experiment, participants faced the same situation, but their choices were very different if the outcome was described as "saving lives" (gain framework) than if it was described as "death toll" (loss framework), which shows that people do not only rely on objective probabilities during the decision making, but are influenced by language or contextual frameworks.

3. The impacts of loss aversion

3.1. Overview of loss aversion research

Loss aversion has been extensively studied in different populations through experiments, questionnaires and interviews. This chapter will review several studies, focusing on their research designs, main findings and limitations.

3.2. Loss aversion in investment markets

Loss aversion in investment markets is a study which analyzed the trading records of more than 10,000 investors [3]. Sample was mostly middle-income families with a balanced gender percentage. The results found that, investors were more likely to sell profitable stocks than loss-making ones, which is known as the "disposition effect". It is rooted in loss aversion: investors are mentally more resistant to turning paper losses into real money losses. Ordinary investors frequently sell profitable stocks, but are reluctant to sell losing ones. The study has also found that participants often hesitate to cut their losses when facing them, even though such a choice would be irrational in the long run. This phenomenon shows that, loss aversion manifests itself in specific behavioral patterns within financial markets and consumer purchasing decisions.

Unlike questionnaire-based or experimental studies, Odean's research relies on authentic market behavior data, which gives it a stronger ecological validity. Financial market transactions involve real investor capital, which made the findings more representative of psychological biases in real-world decision-making environments. However, the limitation of this study is that the analysis of characteristics such as education level and financial literacy is not deep enough, so the conclusions may not be applicable to professional investors.

3.3. Loss aversion in retirement savings

A study about loss aversion in retirement savings explored how loss aversion influences retirement savings behavior, particularly through the framing of investment outcomes [4]. They coined the term myopic loss aversion to describe the tendency of individuals to evaluate their investments too frequently, which amplifies the psychological impact of short-term losses. This effect discourages risk-taking, even if risky assets offer better long-term returns.

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The researchers conducted both theoretical modeling and behavioral experiments. In one notable experiment, participants were asked to allocate hypothetical retirement funds between equities and bonds under different information conditions. When performance feedback was presented annually, participants allocated substantially more funds to equities than when it was presented monthly. The results showed statistically significant differences across conditions, suggesting that fewer assessments encourage long-term investment behavior. Frequent feedback increases the salience of short-term losses, so loss aversion leads to overly conservative portfolios.

This study provided critical evidence with implications for retirement policy design, that the framing of investment horizons significantly shapes financial behavior. In practical terms, the study explains why many workers still tend to underinvest in stocks when given the opportunity to access a diversified retirement plan, even though stocks have an advantage over the long term. The findings aligned with broader observations in financial markets that short-term evaluation leads to suboptimal investment decisions.

3.4. Comparative insights from related research

Comparisons with other empirical work reinforce these insights. For example, earlier prospect theory experiments demonstrated individuals' heightened sensitivity to losses in controlled gambles [1]. Benartzi and Thaler extended this to long-term savings with real-world relevance [4]. Later field studies built on these principles by using automatic enrollment and gradual contribution increases to circumvent loss aversion [5]. By contrast, Dhar and Zhu observed variations in investment-related biases, indicating that demographic factors and cultural background can influence the degree of loss aversion [6]. Moreover, their study also revealed that individuals with higher levels of financial literacy tend to be less affected by myopic loss aversion, implying that education plays a role in reducing its impact.

Nevertheless, this study has certain limitations. Because it relied on hypothetical situations, the external validity may be weakened, as real financial consequences could lead to different behavior. In addition, the sample size was relatively small, which makes it difficult to ensure broad applicability across different cultural and socioeconomic groups. Even with these restrictions, the research of Benartzi and Thaler is still considered foundational in explaining how loss aversion influences retirement planning. It also emphasizes the important role of framing and evaluation frequency in shaping investment choices for both policymakers and individual investors.

4. The impact of framing effect

4.1. Framing effects in the medical domain

McNeil et al. extended the investigation of framing effects into the medical domain by investigating whether and how the framing of treatment outcomes influences patients' and physicians' choices [7]. In their study, participants were asked to choose between surgery and radiation therapy as treatment options for lung cancer. The survival statistics were presented in terms of "survation rates" (positive frame) or in terms of "mortality rates" (negative frame).

For example, 100 participants (50 medical students and 50 physicians) made up a sample of both novice and experienced individuals from different ages and occupations. When the information was presented in terms of survival rates, the participants were in favor of surgery; whereas, when outcomes were framed in terms of mortality rates, there was a great increase in the preferences for radiation therapy.

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This was a research that investigated the framing effect in a situation with direct real-world relevance to the medical field; the study demonstrated that even experts are subject to cognitive biases. Its application was strong; however, the sample size was small and demographically limited, so its external validity was restricted. In addition, there was no consideration for cultural differences in the perception of risk. Therefore, future research should conduct cross-cultural studies, and this may also raise questions regarding cross-cultural generalizability.

4.2. Framing effects in the public and policy domain

Prior studies investigated the effect of the influence of framing on political attitudes by conducting survey experiments in which policy issues, such as welfare and immigration, were described using alternative frames [8]. For example, welfare can be framed as “government assistance for the needy” (positive frame) or as “handouts to the undeserving” (negative frame). The study used a nationally representative U.S. sample with balanced gender and socioeconomic distribution.

Results: The results showed that policy frameworks greatly affect participants’ preferences, especially for those with lower political literacy. However, participants who initially held firm ideological positions, demonstrated little change. This might be related to the selective cognition and motivational reasoning. The results also indicated that policy framework effects are moderated by participants’ ideological differences and levels of knowledge.

This study extended the application of the concept of framing beyond the confines of the laboratory and demonstrated that it is also applicable in socially and politically significant domains. However, the use of self-reported survey results as the dependent measure may have introduced potential biases, and results may differ depending on the specific issues or situations under investigation.

5. Conclusion

Loss aversion and framing effects, two key ideas in behavioural economics, have been covered in this review along with a methodical analysis of how they affect people's decision-making. According to loss aversion, people frequently act risk-aversely even when taking a chance could result in higher expected value because they tend to weigh possible losses more severely than comparable rewards. Conversely, framing effects highlight the significance of the linguistic or contextual presentation of choices, demonstrating that the same outcome can evoke significantly different judgements depending on whether it is portrayed in positive or negative terms. When taken as a whole, these ideas show how psychological biases influence people's decisions and actions, causing them to regularly depart from the presumption of rational choice. Crucially, these patterns are frequently seen in real-world contexts and are not just seen in lab settings. Investors in financial markets, for example, exhibit the disposition effect by holding onto losing securities while selling winning ones. Whether learning objectives are presented as chances for success or as a way to avoid failure might influence students' motivation in the classroom. Similarly, in environmental policy, public acceptance of regulations often depends on whether the message highlights potential losses from inaction or benefits of conservation. These findings highlight the pervasive and applied significance of loss aversion and framing effects in modern society.

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