

Foreign Language Effect on Financial Risk-Taking: A Psycholinguistic Perspective on Economic Decision-Making

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Abstract. This article examines the Foreign Language Effect (FLE) in financial risk-taking from a psycholinguistic perspective. It argues that language is not only a medium of communication but also a factor shaping cognition, emotion, and decision-making under uncertainty. The study reviews theoretical approaches to the FLE, including dual-process theory, the emotional distance hypothesis, and the cognitive-effort account, and relates them to financial behavior such as loss aversion, framing sensitivity, and risk evaluation. It further discusses empirical research showing that decisions made in a foreign language may reduce emotional resonance and alter risk preferences, although the effect remains context-dependent and influenced by variables such as language proficiency, task type, and cultural background. Particular attention is given to the implications of these findings for multilingual financial communication in banking, investment advising, international business, and financial education. The article concludes that further interdisciplinary research is needed to better understand the role of language in financial judgment and behavior.

Keywords: *Foreign Language Effect; financial risk-taking; psycholinguistics; decision-making under uncertainty*

1. Introduction

Decision-making under risk is one of the central concerns of psychology, economics, and behavioral finance because individuals often make important choices in conditions of uncertainty. In financial contexts, such decisions include whether to invest in uncertain assets, accept or avoid losses, choose between safe and risky alternatives, or evaluate gains and probabilities. Classical models of rational choice assume that people weigh outcomes logically and consistently; however, behavioral research has repeatedly shown that human judgments under risk are shaped by framing, emotions, perceived uncertainty, and cognitive biases rather than by pure calculation alone (Kahneman & Tversky, 1979; Lerner et al., 2015).

Within this broader framework, language has emerged as an important contextual factor that may influence how people judge information and make choices. For bilinguals and multilinguals, decisions are not always made in the emotional and cognitive environment of the native language. Instead, using

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a foreign language can alter the way information is processed, reduce the intensity of emotional reactions, and reshape sensitivity to gains, losses, and risk. Research in recent years has shown that language choice can affect framing effects, moral judgments, and risk perception, suggesting that decision-making is not independent from the linguistic medium through which a problem is understood (Keysar et al., 2012; Costa et al., 2014; Hadjichristidis et al., 2015).

This phenomenon is widely known as the Foreign Language Effect (FLE). In general terms, the FLE refers to systematic differences in judgment and choice when people think or decide in a non-native language rather than in their mother tongue. Early studies found that using a foreign language may reduce some common decision biases, including framing effects and certain forms of loss aversion, while later work suggested that the size and direction of the effect may depend on task type, emotional salience, and language background (Keysar et al., 2012; Circi et al., 2021).

Although the Foreign Language Effect has been studied in moral dilemmas and general decision tasks, its role in financial risk-taking remains especially important and insufficiently clarified. Financial choices are strongly linked to both affective reactions and cognitive evaluation, which makes them an ideal context for examining whether a foreign language encourages more analytical thinking, weaker emotional resonance, or both. Therefore, the aim of this article is to examine how the use of a foreign language may shape financial risk-taking through psycholinguistic mechanisms, with particular attention to emotional distance, cognitive effort, and the interaction between language and decision-making under uncertainty.

2. Theoretical Background of the Foreign Language Effect

The Foreign Language Effect can be defined as a change in judgment, reasoning, or decision-making that occurs when individuals use a foreign language instead of their native one. Rather than treating language as a neutral vehicle for expressing thought, FLE research suggests that the language in which a problem is presented may shape the cognitive and emotional processes involved in evaluating that problem. Studies on bilingual decision-making have shown that language context can influence risky choices, framing susceptibility, moral evaluation, and judgments of risk and benefit, indicating that linguistic medium is itself a psychologically relevant variable (Keysar et al., 2012; Costa et al., 2014; Hadjichristidis et al., 2015).

One of the main theoretical explanations for the FLE comes from dual-process theory. According to this perspective, human judgment operates through two broad modes: a fast, intuitive, and affect-laden mode, and a slower, more reflective and deliberate mode. Because using a foreign language often requires greater attention and conscious monitoring, some researchers have proposed that foreign-language processing may reduce reliance on intuitive reactions and encourage a more effortful, analytical style of thinking. This idea helps explain why some classic decision biases become weaker when problems are presented in a non-native language (Keysar et al., 2012; Costa et al., 2014).

A second major explanation is the emotional distance hypothesis. Native languages are usually acquired in emotionally rich family and social environments, whereas foreign languages are often learned in more formal and less emotionally intense classroom settings. As a result, words and

scenarios presented in a foreign language may evoke weaker affective responses than the same content in a native language. This reduction in emotional resonance is particularly important for decisions involving fear, loss, guilt, danger, or moral conflict. Research has shown that foreign-language use can blunt emotional responding and thereby influence judgments of risk, benefit, and moral acceptability (Hadjichristidis et al., 2015; Hayakawa et al., 2017).

A related theoretical account focuses on cognitive effort and increased deliberation. Processing a foreign language may demand more working memory, more careful reading, and greater attentional control. This added effort can interrupt automatic responses and promote more systematic evaluation of available options. However, later evidence suggests that the effect is not always simply a matter of “thinking more.” In some cases, the crucial factor appears to be “feeling less,” meaning that foreign-language use reduces the emotional weight attached to a decision rather than merely increasing logical reasoning. Hayakawa et al. (2017), for example, found evidence that foreign-language use decreased deontological emotional responding rather than increasing utilitarian calculation.

Taken together, these theoretical approaches show that the Foreign Language Effect lies at the intersection of cognition, emotion, and language processing. Dual-process theory highlights the possible shift from intuition to reflection; the emotional distance hypothesis emphasizes reduced affective resonance; and the cognitive-effort account points to greater monitoring and deliberation. In financial decision-making, where gains, losses, uncertainty, and emotional reactions are closely intertwined, these mechanisms provide a strong basis for explaining why the use of a foreign language may alter judgments about risk and choice behavior.

3. Financial Risk-Taking as a Psycholinguistic and Behavioral Process

Financial risk-taking refers to the willingness of individuals to choose an option with uncertain outcomes over a safer alternative with more predictable consequences. In practical terms, it involves decisions such as investing in volatile assets, accepting possible losses in pursuit of higher returns, choosing between guaranteed and probabilistic gains, or engaging in betting and speculative behavior. Behavioral research has shown that such decisions are rarely based on objective probability alone. Instead, financial judgments are shaped by subjective perceptions of gain and loss, emotional reactions, contextual framing, and the cognitive resources available at the moment of choice. Prospect theory, one of the most influential models in this area, demonstrated that people tend to be risk averse in gain contexts and more risk seeking in loss contexts, which means that preferences change according to how options are described rather than according to expected value alone.

One of the most important psychological factors in financial decision-making is loss aversion. Individuals typically experience losses as more psychologically powerful than equivalent gains, which means that the pain of losing money is often stronger than the pleasure of gaining the same amount. This asymmetry helps explain why investors may avoid profitable risks, hold losing assets too long, or react disproportionately to negative information. Closely related to loss aversion is uncertainty, because uncertain outcomes activate anticipation, doubt, and caution, often pushing decision-makers away from purely rational calculation. These tendencies are further intensified by emotional reactions, since fear, anxiety, hope, and anticipated regret can all shape financial choice. Research on “risk as

feelings” argues that people frequently respond not only to statistical probabilities but also to the immediate emotions those probabilities evoke.

Another major factor is framing. Financial decisions can change substantially depending on whether options are presented as gains or losses, safety or danger, profit or sacrifice. The same economic scenario may be evaluated differently if it is linguistically framed in more positive or more negative terms. In addition, cognitive control plays a crucial role because risky financial choices often require the inhibition of impulsive reactions, the comparison of alternatives, and the deliberate assessment of trade-offs. When cognitive control is strong, individuals may be better able to resist emotionally driven shortcuts; when it is weak, intuitive biases may dominate. This interaction between affective response and controlled reasoning makes financial risk-taking not only an economic act but also a psycholinguistic and behavioral process shaped by how information is mentally represented.

Within this framework, language becomes an important variable because it can alter the emotional force, cognitive accessibility, and interpretive structure of financial information. A foreign language may weaken the emotional intensity associated with gains and losses, increase psychological distance from the decision problem, and encourage slower or more deliberate processing. As a result, the same investment, gamble, or probability judgment may be evaluated differently depending on whether it is presented in a native or non-native language. This is why financial risk-taking can be understood as psycholinguistic: language does not merely communicate a decision problem but may also shape the mental and emotional conditions under which that problem is evaluated.

4. Empirical Studies on Foreign Language and Risk Decisions

Empirical research on the Foreign Language Effect has repeatedly shown that language context can influence judgment and decision-making, especially in tasks involving framing, uncertainty, and emotional salience. A foundational study by Keysar et al. found that when classic risky-choice problems were presented in a foreign language, the framing effect was substantially reduced. Participants were less likely to shift between risk-averse and risk-seeking choices simply because outcomes were framed as gains or losses. The same study also reported reduced loss aversion in foreign-language conditions, including greater acceptance of favorable bets with positive expected value. These findings strongly suggested that foreign-language processing can alter the typical biases that shape risky financial decisions.

Later work extended these findings. Costa et al. reported that bilingual participants often showed weaker framing effects when making decisions in a foreign language, which supported the broader claim that non-native language use can promote less biased judgment in risky choice tasks. Related research by Hadjichristidis et al. demonstrated that foreign-language use influenced judgments of risk and benefit for various hazards, with the results pointing to a shift in affective evaluation: stimuli presented in a foreign language tended to be judged as less risky and more beneficial. These findings are highly relevant to financial contexts because investment and gambling decisions are also shaped by affective appraisals of danger, reward, and uncertainty.

Research has also examined more specific domains such as gambling tasks, probability judgments, and risk-preference measures. Annabelle Xing's study of Mandarin-English bilinguals found that foreign-language presentation reduced susceptibility to the framing effect and loss aversion in binary risk-judgment tasks. At the same time, the study found no significant reduction in broader risk-averse tendencies when risk tolerance was measured through stepwise tasks, suggesting that the effect may be stronger for some forms of risky judgment than for others. This distinction is important because it indicates that foreign-language use may reduce particular cognitive-emotional biases without necessarily making people globally more risk seeking.

However, the literature does not support a simple universal claim that foreign language always produces more rational or less biased decision-making. Meta-analytic evidence suggests that there is a real Foreign Language Effect in both moral judgment and risk-aversion domains, but the size of the effect varies across studies and contexts. Circi et al. concluded that foreign-language context does affect decision outcomes overall, including a reduction in risk aversion tendencies, whereas Del Maschio et al. emphasized that the effect is moderated by linguistic and methodological variables and should not be treated as uniform across all tasks. This means that language proficiency, age of acquisition, task design, response format, and emotional salience may all shape whether the effect appears strongly, weakly, or not at all.

Evidence for these limits is also visible in studies showing null or selective effects. Vives et al., for example, found that foreign-language context did not significantly modify outcome bias or the representativeness heuristic in their experiments. Their results suggest that the Foreign Language Effect may be strongest in judgments driven by emotional response and framing, but much weaker in biases that are not primarily affective. Therefore, the empirical literature points in two directions at once: many studies show reduced framing effects, loss aversion, and emotionally colored judgments in a foreign language, while other studies reveal that the effect is context-dependent and does not extend equally to all forms of decision-making.

5. Cognitive and Emotional Mechanisms Behind the Effect

Several mechanisms have been proposed to explain why foreign-language use can influence risk-related judgments. One of the most frequently cited is reduced emotional resonance. Because the native language is usually acquired in emotionally rich personal settings, it tends to carry stronger affective associations than a foreign language learned in more formal or classroom-based contexts. When a risky financial choice is presented in a foreign language, gains and losses may feel less vivid, and the decision-maker may react less strongly to fear, threat, or anticipated regret. This reduced emotional intensity can weaken framing effects and loss aversion, thereby changing the final choice.

A closely related mechanism is increased psychological distance. Foreign-language processing can create a sense of detachment from the immediate problem, making the scenario seem less personally involving or less emotionally urgent. Keysar et al. explicitly proposed that foreign language provides greater cognitive and emotional distance than native language, and this distance may help explain why participants were less influenced by framing manipulations and more willing to accept positive-

expected-value bets. In financial contexts, such distance may reduce overreaction to short-term losses or emotionally charged wording, leading to judgments that appear calmer or less impulsive.

Another proposed mechanism is higher cognitive monitoring. Because processing a foreign language often requires more attention, slower comprehension, and greater mental effort, it may interrupt automatic intuitive responses and encourage closer evaluation of decision alternatives. This account fits dual-process explanations, according to which foreign-language use may shift processing away from fast affective intuition and toward more controlled reasoning. However, the literature also shows that increased deliberation is not always the full explanation. Hayakawa et al. found that foreign-language effects in moral judgment were better explained by weaker emotional responding than by stronger utilitarian reasoning. This suggests that “thinking more” and “feeling less” are related but not identical explanations, and the balance between them may vary depending on the decision task.

Finally, these mechanisms together may produce either reduced or altered risk-taking in finance rather than a single consistent pattern. In some cases, lower emotionality can reduce irrational caution and make individuals more willing to choose economically favorable risky options. In other cases, greater cognitive distance may simply change how risk is represented without increasing overall tolerance for uncertainty. This helps explain why some studies report lower susceptibility to framing and loss aversion, whereas others find no significant change in broader risk tolerance. The most defensible conclusion is that foreign-language use does not mechanically make people more rational or more risk seeking; instead, it changes the emotional and cognitive architecture of judgment, which can modify financial choices depending on the structure and salience of the task.

6. Methodological Issues in Studying the Foreign Language Effect

Although research on the Foreign Language Effect has produced important findings, the field still faces several methodological challenges that complicate interpretation. One of the most significant issues is language proficiency. The strength of the effect may depend on how fluently participants understand and use the foreign language. Meta-analytic evidence has specifically examined proficiency as a moderator, showing that language experience should be treated as a central variable rather than a background characteristic. Similarly, age of acquisition may shape emotional resonance and automaticity in the second language, even though some individual studies have found that age of acquisition does not always significantly predict susceptibility to decision biases. These findings suggest that language background must be measured carefully rather than assumed.

Another challenge concerns cultural background. Financial attitudes, emotional norms, and risk perception differ across societies, which means that bilingual decision-making cannot be studied independently of the cultural environments in which languages are learned and used. In some cases, what appears to be a language effect may partly reflect broader cultural associations attached to one language rather than another. Related to this is the issue of task type. The Foreign Language Effect is not equally strong across all forms of judgment. Studies have shown clearer effects in framing tasks and some affect-laden risky choices, whereas other heuristics and biases show weaker or null results. This means that researchers must avoid generalizing from one decision paradigm to all forms of financial judgment.

A further methodological concern is the distinction between hypothetical and real financial stakes. Many experiments use hypothetical scenarios because they are easy to standardize, but hypothetical choices may not evoke the same emotional and motivational responses as real financial consequences. Some foundational work on the Foreign Language Effect reported changes in the acceptance of both hypothetical and real bets, suggesting that the phenomenon is not limited to abstract judgment alone, but more research with ecologically valid incentives is still needed. In addition, language switching effects may influence outcomes when participants move back and forth between languages within a study. Switching can introduce fatigue, heightened awareness of the manipulation, and changes in processing speed, all of which may affect decision behavior independently of the Foreign Language Effect itself.

To improve research design and validity, future studies should assess language proficiency with standardized instruments, report age of acquisition and frequency of language use, and include culturally diverse samples. Researchers should also compare different task formats, separate hypothetical from incentivized decisions, and control for order and switching effects through counterbalancing or between-group designs. Finally, greater use of preregistration, replication, and multimethod approaches would strengthen the field by making it easier to distinguish robust language effects from task-specific artifacts. Meta-analytic reviews already suggest that the Foreign Language Effect is real but moderated by both language experience and methodological choices, so better-designed studies are essential for determining its precise boundaries.

7. Practical Implications for Multilingual Financial Communication

The Foreign Language Effect is not only a theoretical issue in psycholinguistics; it also has practical significance in real financial environments. In international business, negotiations, contracts, and strategic decisions are often conducted in a second or foreign language, especially English. If language influences emotional response and risk evaluation, then the linguistic medium of communication may subtly shape how managers interpret uncertainty, costs, and potential gains. This is especially relevant when decisions involve cross-border investments, mergers, or negotiations in which participants are working outside their native linguistic frame. Research showing weaker framing effects and altered risk-benefit judgments in foreign-language contexts suggests that language choice may influence how financial opportunities and threats are perceived.

The issue is equally important in banking and investment advising. Clients often receive financial recommendations, loan explanations, or risk disclosures in a language that is not their mother tongue. In such cases, language may influence how strongly they react to warnings, losses, or uncertainty. A foreign-language context may reduce emotional overreaction and help some individuals evaluate options more calmly, but it may also create distance that weakens intuitive caution. Therefore, the choice of language in financial advising is not neutral: it may affect whether a client appears more conservative, more willing to accept risk, or less sensitive to the framing of an offer. This possibility is especially important in multilingual societies and international banking systems where advisors routinely communicate with clients across languages.

In cross-border trade and multinational commerce, foreign-language communication may also shape perceptions of contractual risk, insurance, compliance costs, and strategic uncertainty. When traders, importers, or corporate partners evaluate options in a non-native language, their judgment may shift not because the numbers change, but because the emotional and cognitive processing of those numbers changes. Likewise, in financial education, the language used to teach saving, investment, debt, or entrepreneurship may influence how learners understand risk and reward. Educators and policymakers should therefore consider whether training materials are delivered in a native or foreign language, particularly when the goal is to build informed and balanced financial decision-making.

Overall, these practical implications suggest that language choice may function as a subtle but meaningful factor in clients' and investors' financial decisions. It can influence how information is framed, how strongly it is felt, and how analytically it is processed. For this reason, multilingual financial communication should be approached not simply as a matter of translation accuracy, but also as a matter of cognitive and behavioral impact.

8. Conclusion

This article has argued that language is not merely a tool for expressing financial information but also a factor that can shape cognition, emotion, and behavior in decision-making under risk. From a psycholinguistic perspective, the Foreign Language Effect shows that the language in which a financial problem is presented may influence loss aversion, framing susceptibility, risk evaluation, and the balance between emotional reaction and reflective judgment. Studies in bilingual decision-making have repeatedly shown that foreign-language use can alter how individuals process uncertainty and choice, although the size and direction of the effect vary across contexts.

At the same time, the evidence makes clear that the Foreign Language Effect in financial risk-taking is complex and context-dependent. It does not mean that using a foreign language automatically produces more rational decisions. Rather, language interacts with emotional resonance, psychological distance, cognitive monitoring, task structure, and bilingual experience. Some studies show reduced framing effects and lower bias in risky judgments, while others find selective, limited, or null effects depending on the type of task and the characteristics of participants.

For this reason, further interdisciplinary research is needed. Future studies should combine insights from psycholinguistics, behavioral economics, and multilingual communication research in order to better understand when and how language shapes financial behavior. More ecologically valid designs, cross-cultural comparisons, and multimethod approaches will be especially valuable for clarifying the real-world consequences of the Foreign Language Effect in global financial settings.

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