

Research on Influencing Factors of Foreign Language Acquisition: A Linguistic Economics Perspective

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Abstract: Based on the theoretical framework of linguistic economics, this study investigates the interaction mechanism between the Language Environment (LE) and Economic Incentives (EI) on foreign language proficiency. The research confirms that LE, as an investment field for human capital, constrains acquisition efficiency through its scarcity, manifested in three dimensions: (1) The richness of native/institutional/economic environments directly determines input quality and practice cost; (2) Environmental deficits lead to significantly increased investment in time and funds; (3) EI serves as the core leverage mechanism, where individuals optimize resource allocation through discounted expected returns; however, overly instrumentalized motivation may weaken cultural internalization. A key finding is the symbiotic logic between LE and EI: high-quality environments reduce the cost of competence conversion, while explicit economic returns enhance the efficiency of environmental utilization. Accordingly, policy recommendations are proposed: dynamically allocate key language resources; construct an integrated system of market-oriented foreign language curriculum to maximize the social return on foreign language human capital investment.

Keywords—linguistic economics; foreign language acquisition; foreign language proficiency; language environment; economic incentives

1. INTRODUCTION

Against the backdrop of China's deepening integration into the global economic landscape and the comprehensive advancement of the Belt and Road Initiative, talent proficient in foreign languages, possessing cultural understanding, and demonstrating international competence has become a strategic asset. Individual foreign language proficiency, a crucial dimension of human capital accumulation, is not merely a matter of straightforward linguistic skill training. Rather, its development is constrained by a complex system shaped by the interwoven forces of macro social structures and micro individual choices. While traditional Second Language Acquisition (SLA) research focuses on cognitive psychology and teaching methodologies, it often overlooks the economic rationale underpinning the cultivation of language proficiency: learning behavior constitutes both a rational allocation of finite resources and a forward-looking investment decision contingent on expected future returns.

Marschak (1965), a foundational figure in Language Economics, succinctly analyzed the language's fourfold economic attributes: "value, utility, cost, and returns". Subsequent research, notably by Grin (2016), further empirically verified the positive spillover effect of bilingual/multilingual competence on individual income growth. These studies provide essential theoretical foundations for understanding the economic rationality inherent in foreign language acquisition.

Integrating theories from Language Economics and findings from SLA research, this study focuses on two core elements of Language Environment (LE) and Economic Incentives (EI) to analyze their interactive effects on foreign language proficiency. The research findings aim to provide evidence-based support for the formulation of China's foreign language education policies and the development of its international talent cultivation system, characterized by both theoretical rigor and practical relevance.

2. THEORETICAL FOUNDATION AND LITERATURE REVIEW

2.1 Deconstructing the Value of Foreign Language Proficiency from the Perspective of the Economics of Language

The Economics of Language conceptualizes language as a critical component of human capital through an economic lens. Becker's (1964) theory of human capital investment delineates the cost-benefit decision-making pathways individuals undertake when accumulating education and skills. Within a globalized context, foreign language proficiency is ascribed multiple economic values: firstly, a signaling value, whereby proficiency levels serve as a significant criterion for talent screening (Spence, 1973); secondly, a communication value, effectively reducing transaction and collaboration costs (Grin, 2016); and thirdly, a cultural capital value, acting as a crucial passport for entry into high-value-added industries and international markets.

The Economics of Language (EL) regards language as a unique element of human capital and employs economic analytical frameworks to deconstruct the mechanisms through which foreign language (FL) proficiency generates value. Drawing upon Marschak's (1965) seminal proposition, language possesses four core economic attributes: costliness, profitability, investment characteristics, and scarcity. As an accumulation of linguistic capital by both individuals and society, the economic value of FL proficiency is initially manifested in its input-output relationship: learners' investments of time, effort, and material resources constitute direct costs, while the subsequent economic returns derived from acquiring proficiency represent explicit benefits. Furthermore, Becker's (1964) Theory of Human Capital Investment offers a deeper explanatory framework for foreign language acquisition: FL proficiency is fundamentally a strategic investment, whose value stems not only from its instrumental utility but also from the long-term marginal benefits it generates by reducing transaction costs and enhancing information access efficiency (Grin, 2016).

From the perspective of value structure, the economic attributes of foreign language proficiency can be deconstructed within a "cognitive-functional" dual framework. At the cognitive level, a foreign language functions as an individual's internal symbolic processing system; its value is contingent upon the breadth of information it carries and the depth of cultural decoding it facilitates (Bourdieu, 1991). At the functional level, FL proficiency is transformed into transactable communicative capital, directly participating in economic production processes. This manifests concretely as: (1) acting as a production factor that reduces institutional transaction costs in cross-border collaboration (North, 1990); (2) serving as a cultural bridge that enhances the efficacy of cross-cultural business communication and minimizes cooperative friction; and (3) functioning as a catalyst for innovation through multilingual thinking, stimulating knowledge recombination and creativity (Protassova & Yelenevskaya, 2026). Empirical research (e.g., Chiswick & Miller, 2014) corroborates that the rate of return on foreign language skills exhibits a significant positive correlation with the economic potential of the languages involved.

2.2 The Formative Power of the Language Environment in Language Acquisition

Krashen's (1982) Input Hypothesis emphasizes the foundational role of comprehensible input with a low-anxiety environment in building language proficiency. Rich and authentic target language environments provide ample opportunities for language exposure and immediate feedback scenarios (Long, 1996), thereby facilitating the natural transfer from intuitive linguistic sense to pragmatic competence. Sociocultural theory (Lantolf, 2000) posits that target language communities not only supply linguistic material; their cultural practices and thinking patterns become embedded within the internal structure of language ability itself.

The language environment, as a crucial independent variable in the process of foreign language acquisition, refers to the totality of physical and psychological spaces in which learners are immersed and can access and utilize the target language, including their structural characteristics. Examined from the perspective of the economics of language, its connotation extends far beyond simple communicative contexts. It constitutes a social structural network imbued with abundant linguistic symbolic capital (Bourdieu, 1991) and latent economic value. Based on the intensity, frequency, and quality of its provision of linguistic input and opportunities for interactive practice, the language environment can be systematically categorized into three core dimensions: the natural input environment, the institutionally constructed environment, and the economically-driven environment. Theoretically, Krashen's (1982) Input Hypothesis provides its fundamental cognitive framework, stressing that comprehensible input is the essential condition for acquisition, and environments fundamentally influence this process through the quantity and quality of input they provide. Concurrently, Swain's (1985) Output Hypothesis and Long's (1981) Interaction Hypothesis further contend that environments serve not only as sources of input but also as critical domains for enabling negotiation of meaning, generating pushed output, and eliciting high-quality feedback. These dynamic processes are essential for the restructuring and internalization of linguistic knowledge. The economics of language elevates this perspective to the level of resource allocation and capital accumulation, viewing the language environment as a critical investment context shaping an individual's linguistic ability - a valuable form of human capital (Bourdieu, 1991). Variations in language environments are directly linked to the quality, rate, and efficiency of language skill development, consequently profoundly affecting an individual's future competitiveness in the labor market and potential economic returns (Chiswick & Miller, 2014).

Extensive empirical research robustly corroborates the powerful formative potential of the language environment and its significant implications within the economics of language framework. Regarding input exposure, observations of immigrant populations (Longitudinal Immigrant English Proficiency studies) have widely confirmed that both the intensity and duration of exposure to the target language exhibit a strong positive correlation with ultimate language proficiency attainment (Chiswick et al., 2008). This directly reflects the economic efficiency advantage of natural environments as "low-cost and high-density" spaces for language practice. Comparative studies (e.g., Bardovi-Harlig, 1992) clearly demonstrate that individuals engaged in immersive learning within the target language community typically exhibit significantly superior pragmatic competence, communicative fluency, and internalization of grammatical usage in naturalistic contexts compared to learners in non-target language environments. Regarding institutionally constructed environments, researchers (e.g., Luo et al., 2024)

identify the key to their effectiveness as the ability to maximally simulate high-context input features - such as authentic communicative need and contextual embeddedness - through diverse pedagogical strategies and high-frequency interactional feedback. Economically-driven environments primarily operate by altering learners' instrumental motivation and investment decisions (Dörnyei, 1994). In essence, regardless of its specific form, the core formative power of any language environment lies in its fundamental function as a repository for learners' linguistic capital accumulation. By modulating the accessibility, frequency of use, and perceived utility value of linguistic information, the environment profoundly influences the quality of learners' input, opportunities for practice, the efficacy of feedback, and cognitive motivation, ultimately determining the rate and level of formation of foreign language human capital.

2.3. The Driving Mechanism of Economic Incentives on Learning Investment

Linguistic economics conceptualizes language as a form of capital possessing both market value and social value (Grin, 2016), wherein economic incentives emerge as crucial instrumental motivators propelling individual investment in foreign language learning. The core mechanism lies in the time discounting of expected future returns. Based on a rational assessment of a target language's economic value, individuals transform language learning into a human capital investment with potentially significant future returns (Becker, 1964). These anticipated returns manifest specifically as: (1) Market Signaling Value: Proficiency in a specific language markedly enhances an individual's distinctiveness within the labor market (Spence, 1973); (2) Career Mobility Premium: Foreign language fluency exhibits a significant positive correlation with access to international positions, career progression speed, and lifetime income (Chiswick & Miller, 2014; Williams, 2010); (3) Access to High Value-added Sectors: Such as international finance, scientific research and development, or external trade service industries.

This explicit input-return mapping framework potently stimulates individuals' intrinsic motivation, prompting them to optimize time allocation and proactively seek high-quality linguistic resources. The regulatory effect of economic incentives on learning behavior is dynamic, multidimensional, and interactive. Driving intensity is primarily modulated by the economic potency of the target language: Official languages of economically developed regions or nations occupying pivotal positions in international trade, technology, or cultural dissemination induce stronger investment inclinations and instrumentally rational behavioural strategies among learners, due to their potential linkage to substantial market benefits and resource channels.

Secondly, the learner's socioeconomic background exerts a critical buffer effect: Individuals from lower-income backgrounds display heightened sensitivity to immediate, quantifiable economic returns, resulting in learning behaviors

with a more pronounced pragmatic utilitarian orientation. Conversely, higher-income individuals may prioritize the long-term identity construction or cross-cultural social capital afforded by language proficiency (Cai et al., 2022).

Furthermore, economic incentives exhibit a complex interplay with non-cognitive factors, such as intrinsic learner motivation. While potent drivers of investment in the short term, excessive emphasis on material gains may potentially undermine long-term linguistic identity and deep-seated cultural connections (Dörnyei & Ushioda, 2011).

Consequently, understanding the driving logic of economic incentives necessitates examination within a multilevel interactive system encompassing economic rationality, strategic choice, contextual constraints, and intrinsic motivation.

3. ANALYSIS OF INFLUENCING FACTORS

3.1 Economic Properties

From the perspective of the economics of language, the linguistic environment possesses the distinct characteristic of a scarce resource and holds a core position in terms of opportunity cost, profoundly shaping the efficiency and ultimate outcomes of individual foreign language (FL) acquisition. According to Language Human Capital Theory (Grin, 2016), the linguistic environment fundamentally determines the quantity and quality of high-quality language input exposure and authentic communication opportunities accessible to learners. These constitute the core factors of production in the construction of foreign language proficiency.

The inherent scarcity of this resource presents a pervasive challenge: naturally occurring, immersive sociolinguistic contexts in the target language often entail substantial economic barriers. Conversely, language input acquired within routine environments, heavily reliant on proactive individual effort, frequently exhibits fluctuations in both adequacy and quality. Economic analysis reveals a key mechanism at play: scarcity within the environment increases the cost of practice, thereby inhibiting individual development (Acheampong & Opoku, 2023). Learners must invest considerable extra time and resources—far exceeding theoretical requirements—to seek, create, or even simulate interaction scenarios that should naturally occur within a high-quality linguistic environment. This results in significant temporal, cognitive, and even financial costs associated with the learning process.

When exposure opportunities remain sporadic and domains of practical application are restricted, the perceived future utility of language skills for learners risks being outweighed by escalating human capital investments, diminishing their willingness for further investment (Ginsburgh et al., 2007). This provides a macroeconomic explanation for the general pattern of low persistence rates observed in foreign language learning among wider populations within regions where the target language exerts

relatively limited influence (World Bank Education Database Indicators).

A thorough analysis of the economic mechanisms underlying the linguistic environment demonstrates that its efficacy fundamentally results from a dynamic equilibrium governed by an input-output resource model. In accordance with principles of supply and demand, the scarcity of the target language environment correlates positively with its perceived value, prompting individuals to make rational choices within their economic means: from relatively economical local language corners and online exchange partners, to high-cost immersive overseas programs, each offering correspondingly significant gradations in potential benefits. The language education market responds to this demand by offering language training institutions, immersive workshops, and even overseas study tours - tangible manifestations of the “linguistic environment as a commodified service”.

Therefore, this investment in constructing appropriate environments represents a rational strategy to overcome inherent environmental scarcity and constitutes a necessary form of value-added expenditure by learners on their own linguistic human capital. Drawing on Externality Theory, Foreign Language Public Service Environments established primarily by national and societal institutions provide an effective means to circumvent the high-cost individual investment model, significantly expanding the social supply of linguistic environmental resources. Such Public Language Goods (Grin, 2016) not only reduce the individual practice costs borne by learners, but their widespread presence as multilingual societal symbols also generates a positive field of learning atmosphere. This confers a robust positive externality effect on the overall enhancement of societal linguistic capabilities.

3.2 Economic Incentives

Within the analytical framework of language economics, economic incentives serve as a fundamental driving force, profoundly shaping the decision-making trajectory of individuals regarding foreign language acquisition. Foreign language proficiency constitutes an essentially high-mobility investment in human capital, its primary value manifesting in significantly enhancing an individual's cross-cultural productivity and potential economic returns. Grounded in human capital theory pioneered by Becker and Mincer, individuals, after weighing the costs of language learning against anticipated lifetime earnings, exhibit a tendency to prioritize languages offering higher expected net returns. The global market intensifies this dynamic: individuals proficient in dominant languages of international commerce consistently demonstrate greater competitiveness and broader career advancement prospects across multinational labor markets. Concurrently, national and even regional policies represent potent exogenous sources of economic incentives. For instance, China's Belt and Road Initiative, generating urgent demand for linguistically versatile personnel, has spurred

increased investment in the education of relevant languages (Rahman, 2022). Crucially, the efficacy of economic incentives hinges on perceptibility – specifically, whether potential learners can effectively identify and anticipate the shift in the economic opportunity cost-benefit ratio. The process of acquiring a foreign language fundamentally represents a strategic choice by individuals to optimize their human capital structure within a globalized context. Economic incentives act as a core signal, continuously directing the dynamic allocation of individual cognitive resources between language learning and non-linguistic activities, thereby constituting the most profound rational logic underpinning foreign language acquisition (Hoffmann & Pfeil, 2021).

The transmission mechanisms of economic incentives are characterized by diversification and multi-dimensionality, exerting a profound influence on the intensity of investment and learning effectiveness in foreign language acquisition. Its most direct and instrumental manifestation lies in the income premium effect: substantial empirical evidence (e.g., Chiswick & Miller, 2014) demonstrates that language skills make a significant and measurable contribution to labor productivity and income levels in environments where the workplace language differs from the mother tongue, providing a powerful explicit incentive for individual learning. Furthermore, economic incentives significantly impact instrumental objectives such as educational progression and career development: mastery of dominant languages (e.g., English) often serves as a prerequisite for admission to top-tier international universities and securing government or international organization-sponsored exchange opportunities; within multinational corporations, proficiency in core languages such as English frequently acts as a decisive criterion for promotion and assignment to pivotal projects, driving sustained language investment among professionals. More critically, the substantial economic value embedded in language fuels the emergence of vast industry chains: from exam-oriented language training to the high-demand language services market. These sectors not only generate significant employment opportunities and favorable income prospects but, through their substantial potential returns, subsequently reinforce the individual economic motivation for language acquisition, establishing a virtuous cycle of positive feedback. Through multiple dimensions—income enhancement, career advancement, access to education resources, and market value—economic incentives not only catalyze the initiation of foreign language learning but also profoundly mold the intensity of sustained commitment and directional choices in learning. Their dynamic structure directly impacts the quality accumulation and efficiency of value realization in linguistic human capital, constituting the fundamental allocation signal and the core agency for individual action within the foreign language acquisition system.

3.3 Foreign Language Proficiency

Within the analytical framework of linguistic economics, foreign language proficiency constitutes more than mere

linguistic knowledge or a communication tool. Its essence lies in a form of human capital with significant economic value, investment potential, and market bargaining power. As a core element enabling individuals to compete and collaborate within the globalized labor market, the acquisition and refinement of foreign language proficiency are conceptualized as an active economic endeavor characterized by an investment-return dynamic.

From an economic logic, its value is primarily manifested as the capacity to overcome information acquisition barriers (Liu et al., 2023). It effectively reduces transaction costs and information search costs across linguistic and national boundaries, thereby expanding individuals' efficient access to scarce resources such as knowledge, technology, and market dynamics. Secondly, foreign language proficiency profoundly influences employment market structures and individual career trajectories through a signaling mechanism. In information-asymmetric job markets, high-level proficiency functions as an observable strong signal, effectively conveying implicit information to potential employers about an individual's cognitive flexibility, cross-cultural adaptability, and commitment to internationalized learning. This significantly enhances their matching efficiency in competitive positions and the expected wage premium.

The process of building foreign language proficiency directly reflects the economic rationality of micro-actors, with its depth and breadth being systematically shaped by multiple economic variables. The trade-off between explicit and implicit learning costs represents a primary constraint: learners must make sustained investments of irreversible time capital, coupled with quantifiable monetary costs. These costs necessitate discounted evaluation within individual intertemporal investment decision models. Concurrently, the consideration of opportunity cost is paramount—the potential value of other knowledge skill acquisitions or leisure time forgone to enhance language skills profoundly influences the priority order of resource allocation.

The core driver, however, stems from learners' assessment of the expected rate of return on foreign language proficiency. This involves quantitative or qualitative judgments based on: the status of the target language within the economy; projections of its usage density within the target industry or region; and its potential contribution to lifetime income enhancement over an individual's career cycle. This expectation is significantly modulated by the surrounding institutional environment (IE). Particularly noteworthy is the transformative impact of the digital technology revolution on traditional economic models: while intelligent assistive tools lower absolute entry barriers, they may simultaneously elevate the economic valuation placed on advanced, creative, and culturally profound language skills, triggering a graded differentiation within linguistic capital structures.

Therefore, the economic formation mechanism of foreign language proficiency perpetually resides within a dynamic

field of tension defined by cost burdens, expected returns, technological enablement, and institutional inducements. Its optimal accumulation and value realization are contingent upon achieving an effective equilibrium between micro-level rational choice and macro-structural compatibility.

4. PRACTICAL IMPLICATIONS

Drawing upon the preceding analysis, this study distills the following key practical implications from the perspective of linguistic economics:

Policymakers need to systematically integrate foreign language competence as a core element within national human capital strategies. Considerations must explicitly account for the differential economic value of languages to dynamically optimize the allocation of language education resources at the national level. Priority should be given to cultivating talent in “critical languages” that exhibit strong linkages with patterns of global economic integration, key regional cooperation initiatives, and emerging industries. Furthermore, it is imperative to promote the establishment of a market-oriented language proficiency assessment and certification system. This would enhance the signaling value and market liquidity of language skills, enabling learners to clearly foresee the marginal returns on their linguistic capital investments (Grin, 2016). Additionally, government agencies, in collaboration with industry associations, should periodically publish reports detailing foreign language demand and associated wage premiums. Such publications would guide the flow of educational resources and societal investment towards language skills yielding higher marginal economic returns.

Foreign language education institutions should actively embed economic incentive-driven logic and deepen the alignment between curricula and market demands. First, reforms should introduce integrated “foreign language + professional skills/area studies knowledge” curriculum structures. This would precisely align with labor market demands for bilingual or multilingual professionals possessing interdisciplinary competencies, establishing clear immediate career pathways for learners. Second, pedagogical practice necessitates the stratified integration of economic incentive elements: (1) For beginners or learners primarily motivated by economic gains, we should incorporate microeconomic case studies and utilize recent, demonstrably successful transition cases to bolster learning confidence and willingness to invest. (2) For advanced learners or those with long-term career goals, we should emphasize elucidating the mechanisms through which language proficiency facilitates access to global capital (Piller, 2016). Concurrently, building upon economic objectives, institutions must deeply integrate the cultivation of cultural understanding and cross-cultural communication competencies. This holistic approach fosters the development of a symbiotic language learning ecosystem where economic utility and cultural internalization coexist, maximizing long-term sustainable return on investment for learners (Germain-Rutherford & Karamifar, 2022).

5. CONCLUSION

Based on the theoretical framework of language economics, this study systematically examined the pathways and magnitudes of influence exerted by two core factors—Language Environment (LE) and Economic Incentives (EI)—on the formation of foreign language proficiency. Empirical analysis reveals that the language environment, constituting a pivotal domain for foreign language human capital investment, significantly impacts acquisition efficiency and cost burden. Scarcity in this environment elevates practical costs, thereby weakening learning motivation and outcomes. Economic incentives serve as a fundamental driving force, whereby individuals rationally evaluate the expected returns on foreign language skills to optimize learning resource allocation decisions.

The interplay between these factors demonstrates that without effective economic incentives, the value of the language environment cannot be fully realized. Conversely, in the absence of a supportive language environment, the conversion efficacy of economic motivations remains constrained. This research provides key theoretical underpinnings and practical implications for optimizing the allocation of language education resources and designing foreign language education policies that integrate environmental support with economic guidance. Ultimately, it significantly enhances societal and individual return expectations on investments in foreign language proficiency.

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