

The Influence of Interlanguage on Language Understanding and Cognitive Processes in Second Language Acquisition

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Abstract. The impact of interlanguage on second language acquisition has garnered widespread attention, yet its mechanisms and effects remain insufficiently analyzed. This paper examines the mechanisms by which interlanguage influences language comprehension and cognitive processes, analyzing phonetics, word order, pragmatics, and learners' language internalization in Chinese-English bilingualism. The findings reveal that interlanguage negatively affects short-term language comprehension and long-term cognitive processes for Chinese native speakers learning English as a second language, including logical fallacies and psychological barriers such as rigid thinking, daily communicative psychological stress, and pragmatic misconceptions. Based on these findings, the paper proposes the following teaching and learning recommendations: First, teachers should accurately assess the causes of interlanguage emergence in learners. Second, educators can help students identify native language phonetic interference, cultivate effective listening and speaking habits, and utilize recording corrections and online educational resources to support learning. Third, teachers should emphasize the role of cultural cognition in second language acquisition. Finally, individual learners need to establish personal spaces for practicing the second language and engage in language acquisition within the context of cultural cognition.

Keywords: Interlanguage, Language Comprehension, Cognitive Process.

1. Introduction

Second language acquisition, as a complex learning mechanism, involves natural adjustments and developments in learners' language expression during the process. Among these, interlanguage is a unique linguistic system created by learners in the course of second language acquisition, which differs from both the native language and the target language. This system is not a defective version of the target language but a structured and continuously evolving independent linguistic system [1]. Some scholars propose that interlanguage attempts to establish connections between differences of superficial linguistic symbols and deep cultural cognition, revealing that intercultural cognitive differences are a profound and critical factor leading to the emergence of interlanguage in second language acquisition [2]. Others have researched the acquisition characteristics of Chinese interlanguage clause complexes, such as structural types and error patterns, to analyze the discourse acquisition patterns of Chinese interlanguage [3]. Substantial analysis and research indicate that the formation of interlanguage is influenced by multiple factors and perspectives, and interlanguage impacts cognitive aspects such as psychological and pragmatic development at varying levels and degrees. However, there remains a research gap in scholars' negative understanding of the foundational cognitive processes. Thus, this study focuses on second language learners with Chinese as their native language and English as the target language, exploring the negative effects of interlanguage on learners' linguistic thinking patterns and psychological dimensions in terms of language transfer and language cognition.

2. The Concept and Logical Function of Interlanguage

2.1. Concept, Formation Reasons, and Characteristics of Interlanguage

Interlanguage is a temporary language system formed by foreign language learners, which is different from the native language (NL) and the target language (TL), and reflects the unique rule

system of learners' understanding and expression of the target language. The main reasons for its formation include language transfer, overgeneralization, communication strategies, learning strategies, and cognitive processes. The development of interlanguage presents instability, with both progress and possible regression. In the initial stage, the influence of native language transfer is significant, but the influence of native language gradually weakens as the interlanguage develops. Due to its continuous restructuring, it is difficult to determine the ultimate development status of interlanguage [4]. Interlanguage has three main characteristics, namely fossilization, systematicity, and simplification. Fossilization refers to the phenomenon where second language acquisition stagnates before reaching the level of native speakers. Systematicity refers to the fact that interlanguage has its own grammar rules and structure. Simplification, at the morphological and syntactic level, omits redundant affixes, simplifies the use of articles and pronouns, and fixes word order without inflectional forms, while at the lexical level, vocabulary is limited and has strong polysemy. However, during the development of interlanguage, there may also be complications, similar to the example of evolution from Pidgin to Creole [5].

2.2. The Underlying Mechanisms of Interlanguage in Second Language Acquisition

Interlanguage, as one of the core mechanisms in second language acquisition, is influenced by multiple mechanisms and reflects the dynamic system of learners in language input, cognitive processing, and output processes. The underlying mechanisms mainly include 5. Native language transfer, the impact of native language knowledge on target language acquisition, including positive and negative transfer. The transfer of training refers to the fossilized language that occurs when learners are influenced during the training process. Overgeneralization, where learners infer universal rules based on limited language input and apply them to new contexts, leading to interlanguage. The strategies of second language learning involve the provision of interlanguage materials that do not conform to the target language, allowing learners to learn the interlanguage this way. Strategies of second language communication refer to the social context in which learners adjust their language use through communication, promoting the evolution of interlanguage.

Language comprehension refers to the immediate reception and processing of second language input information by learners, who are able to recognize and process vocabulary, grammar, and semantic information in the language. Afterwards, learners combine contextual and background knowledge to accurately grasp the surface and deep meanings of language, thereby achieving effective communication and learning. Understanding transformation emphasizes that learners quickly transform abstract language concepts into concrete language expressions and language imagery. When learners are exposed to new vocabulary, grammar, sentence structures, and other content, they will use their own understanding to interpret expressions, reflecting the immediacy and dynamism of language understanding.

2.2.1 The impact of interlanguage on language comprehension in terms of pronunciation differences

When learners express a second language, both their native language and the second language are simultaneously activated. During vocabulary processing, differences between the native language and the target language result in the influence of interlanguage on lexical retrieval and semantic integration. In the syntactic processing stage, the grammatical structure of interlanguage affects the syntactic parsing of the target language, resulting in short-term structural transformations.

Each language has its own phonetic system and pronunciation rules. For example, the consonant system in Chinese lacks clusters of consecutive consonants, requiring vowels to separate consonant units during pronunciation, whereas English features consonant clusters. This structural difference leads Chinese learners to often insert transitional vowels such as [ə] or [ɪ] when pronouncing English consonant clusters. For instance, mispronouncing [greɪt] as [gə'reɪt], [sprɪŋ] as [spə'rɪŋ], and [kli:n] as [kə'li:n] [6]. The inclusion of redundant vowels inevitably prolongs pauses in English speech and reduces fluency. Additionally, long-term habitual monotone intonation and unnatural interlanguage production may erode learners' confidence and motivation in expressing themselves. From a

suprasegmental feature perspective, Chinese is a tonal language while English is a prosodic language. Tonal languages distinguish word meanings through pitch variations, whereas prosodic languages convey grammar and emotion via intonation. These pronunciation differences cause second language learners to struggle with differentiating and accurately producing stress, though English often relies on stress to distinguish word class and meaning—such as refuse /ri'fju:z/ (verb: refuse, reject; resist) against /'refju:s/ (noun: scrap; waste; adjective: worthless). Regardless of word class, learners typically retain only one stress pattern for a word, often defaulting to the earlier-learned or more common noun form. This interlanguage fossilization results in ambiguous pronunciation for listeners, making meaning difficult to discern, and for speakers, leading to challenges in expressing ideas clearly and creating communication pressure.

2.2.2 The impact of interlanguage on language comprehension in word order variation

Although both English and Chinese primarily employ the subject-verb-object (SVO) syntactic framework, they exhibit significant differences in word order flexibility and the use of special sentence structures [5]. Chinese syntax is relatively flexible but strictly adheres to linear word order rules, prohibiting inversion for semantic emphasis. In contrast, English possesses a rich system of inversion mechanisms to meet rhetorical needs or shift logical focus [4]. For instance, in the fully inverted structure of English, such as "So honest is he that everyone likes him," the verb or auxiliary verb must be placed after the emphasized element to highlight the speaker's intense emotional expression. In this example, the speaker aims to emphasize the person's exceptional honesty so that everyone likes him. Typically, when second-language learners have not yet mastered this grammatical rule, their expression might be "So honest he is that everyone likes him," as they initially encounter mostly SVO sentence patterns. Once these patterns become rigidified, learners require practice and time to shift the predicate position when using interlanguage. Similarly, English interrogative structures are also prone to word order errors due to interlanguage influence. English requires subject-verb inversion for questions, while Chinese usually achieves interrogative function through unchanged word order plus modal particles [6]. When learners overgeneralize the inversion rules, errors like "Do you know how can I go to the cinema?" often occur. While speakers generally avoid excessive semantic ambiguity, second-language learners' understanding of English word order remains somewhat rigid. Intermediate language can lead to a singular thinking pattern in English language and culture comprehension, resulting in slight deficiencies in learning.

2.2.3 The influence of interlanguage on language understanding in pragmatic differences

The same sentence may have different "speech acts" in different cultures, such as requests, apologies. One way to express concern for others in Chinese is to choose the sentence structure of "you should...". The expression itself does not carry any imperative when caring. In English dialogues, imperative language itself lacks emotional factors and contains more emphasis and irrefutable objective facts, so native English speakers will not associate imperative language with caring, friendly semantics. A Chinese student said to a native English speaker, "You must be really tired. You should go home and have a rest." The original meaning is that rest is also important after studying and working. Although this interlanguage expression is grammatically correct, it incorporates the pragmatic functions of the Chinese native language, making it difficult for listeners to understand the "implied meaning" they are concerned about. Cross-cultural cognitive differences lead to communication failure.

2.2.4 The impact of interlanguage on cognitive processes

The cognitive process involves learners' deep processing and internalization of second language knowledge, and is a long-term development process of second language acquisition. As a dynamically changing language system, interlanguage illustrates the evolution of learners' cognitive structures and the internalization of language rules. Through repeated use and social interaction, learners gradually solidify their interlanguage into a stable cognitive pattern, forming long-term memory. Due to the fossilized nature of interlanguage, learners' long-term biased use of the second language limits the

further development of language abilities and solidifies their cognitive structures and language acquisition mechanisms.

In terms of framework semantics, cross-linguistic formation is deeply influenced by interlanguage resulting from the transfer of native language concepts. The framework semantic theory holds that the meaning of vocabulary depends on specific cognitive frameworks or contextual structures. The negative transfer is manifested in the influence of the native language framework on the target language's semantic understanding and syntactic structure, leading to semantic and logical errors. The long-term consequence of the solidification of interlanguage is that learners will never be able to accurately select words like native speakers, and their expressions will always have stiff translations, losing the flexibility of language. If learners unconsciously map the existing concept of "space" in their mother tongue to English, they describe "in the newspaper" as "on the newspaper". When the semantic framework of the native language does not match that of the second language, errors occur [7]. These errors are also essentially the formation of interlanguage. Moreover, interlanguage may make it difficult for learners to understand humor, irony, and implied meanings, which heavily rely on the command of a shared cultural framework. If someone says "Nice weather we're having". To understand this irony, it is necessary to activate the "good weather" framework and compare it with the terrible reality in front of us. Learners with missing frameworks and inflexible interlanguage thinking will only feel confused or stressed in language expression.

Conceptual metaphor is a cognitive mechanism that involves understanding concepts from one domain to another. The differences in metaphorical systems between different cultures exacerbate negative transfer and also affect the naturalness and accuracy of language expression, namely, the emergence of interlanguage. When a native English speaker comforts a Chinese student and says, "Don't cry over spilt milk". This English idiom uses daily, concrete, and profound imagery, metaphorically meaning "Do not be overly sad and remorseful for losses or mistakes that have already occurred but cannot be changed". If learners interpret it literally, the language becomes dry. If there are English idioms, learners may not have the ability to use them and may avoid using them. Consequently, their language remains at the literal level, so that they are unable to understand and produce vivid and idiomatic utterances.

Imagery schema refers to the basic cognitive structure formed by human body experience, used to understand and organize language meaning. The native language image schema affects the understanding and utterance of the target language, leading to the misuse or mismatch of image schemas in the target language. It influences vocabulary selection, semantic understanding, and metaphorical use, so semantic logic confusion occurs. For example, "We met at the party." The meaning of this sentence itself can be understood among native speakers, but the use of prepositions also needs to be standardized. This type of interlanguage regarding the use of prepositions indicates that learners have not fully internalized elaborate and nuanced spatial patterns in their brains. They may only have a vague position map and attempt to apply it with limited English terminology, causing confusion [8]. However, learners cannot generalize and hold the opinion that phrasal verbs are vast and irregular. Ultimately, they choose to give up and use longer phrases to express themselves, making the language style unnatural.

Language transfer is a fundamental cognitive process in second language acquisition, but it operates within a broader framework of universal learning mechanisms. Transfer is not in competition with cognitive learning theories, but is actually encompassed by them. The structural similarities and differences between learners' first language (L1) and second language (L2) can predict potential influence patterns, but it is cognitive processes that drive how and when these potential patterns are implemented in actual language use. Language transfer involves activating existing language knowledge to process new language input. This process embodies the principles of adaptability and economy in the human cognitive system [9]. Therefore, interlanguage is not just a product of L1 transfer. More precisely, it is understood as a dynamic cognitive system that actively processes L2 input, where transfer is one of several strategies for understanding new language data.

To sum up, the development of interlanguage is a process in which learners actively construct conceptual frameworks for the target language. Inaccurate semantic concepts and framework structures have more or less negative effects on learners' expression, communication, and psychological activities from multiple perspectives. L2 learners need to learn how to use different word frameworks to explain the same behavior in a foreign language, and the attempts and confusion during this period are a reflection of the dynamic development of both language acquisition and interlanguage.

3. Suggestions for Teaching and Learning of Foreign Languages

Grounded in research and analysis of interlanguage influences, for educators, they need to analyze students' interlanguage can serve as a monitoring tool for errors in second language acquisition. Simultaneously, it should be recognized that interlanguage has different stages of development, and the impact of each stage of interlanguage on second language learners is different. For the bottleneck period of language acquisition, it is necessary to analyze more accurately whether the interlanguage or certain forms of the first language at this time are similar to certain media in current second language acquisition, which can provide positive guidance for second language learners [10]. Firstly, teachers should correctly evaluate the reasons for learners' interlanguage, help learners systematically solve interlanguage, and avoid the negative effects of interlanguage solidification. Secondly, in terms of teaching methods, teachers can assist students in identifying interference from native language pronunciation, cultivate good listening and speaking habits, and use recording correction and online educational resources to support learning. This type of online educational resource can be content resources with multimodal design and AI-driven real-time feedback, significantly improving learners' listening and speaking abilities and learning efficiency. Choosing appropriate multimedia resources for teachers and students to engage in multimodal teaching and learning is also a feasible and effective approach, such as crash courses [11]. Third, teachers need to emphasize the role of cultural cognition in second language acquisition, promote the development of pragmatic competence, and reduce negative transfer. Finally, students can also explore extracurricular materials on their own, establish personal spaces for practicing their second language, try to communicate with native speakers, and acquire language systems with cultural frameworks.

4. Conclusion

This article analyzes the impact of interlanguage on short-term language comprehension and long-term cognitive processes of second language English learners who are native Chinese speakers in the process of English acquisition, based on the pronunciation, word order, pragmatics, and language internalization processes of Chinese and English. The finding conclusion is that interlanguage has a comprehensive negative impact on such learners, which may lead to communication and pragmatic difficulties, psychological pressure, and a lack of guidance and motivation for future language learning. However, learners can still have confidence in their future language learning. The difficulties and obstacles caused by interlanguage are temporary, and new educational resources can provide learners with more paths to explore language and culture in a more diverse way.

References

- [1] Selinker, Larry. Interlanguage. *IRAL: International Review of Applied Linguistics in Language Teaching*, 1972, 10: 209-231.
- [2] Liu X. Cultural Cognition and Pragmatic Interaction: Analysis of Word Order Errors in Chinese Interlanguage for International Students.. *Chinese Character Culture*, 2025, (19): 102-104.
- [3] Zhao T. Research on the Acquisition of Chinese Interlanguage Discourse Based on the Theory of Small Sentence Complex. Beijing Foreign Studies University, 2025.

- [4] Larsen-Freeman D. Another step to be taken–Rethinking the end point of the interlanguage continuum. *Interlanguage*. John Benjamins, 2014: 203-220.
- [5] NiesTorowicz T. The Phenomenon of Interlanguage in the Process of Second Language Acquisition. *Logopedia*, 43: 31-39.
- [6] Fan S. Negative Transfer of Chinese English Interlanguage in Second Language Acquisition. *Modern Linguistics*, 2025, 13 (6): 124-133.
- [7] Lindes P, Laird J E. Toward integrating cognitive linguistics and cognitive language processing. *Proceedings of the 14th International Conference on Cognitive Modeling (ICCM)*. 2016.
- [8] Bender A, Rothe-Wulf A, Hüther L, et al. Moving forward in space and time: how strong is the conceptual link between spatial and temporal frames of reference? *Frontiers in Psychology*, 2012, 3: 486.
- [9] Gas S. Language transfer and universal grammatical relations. *Language learning*, 1979, 29(2): 327-344.
- [10] Hu Z. Editor in Chief, *Linguistics Course*. Peking University Press, 2001
- [11] Bian Z, Lu H, Wan J. Multimodal Approaches to Second Language Acquisition in the Digital Age. *SHS Web of Conferences*. EDP Sciences, 2025, 220: 04025.