

Analysis of Fossilization Phenomenon in Second Language Vocabulary

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Abstract: Vocabulary is a central component of language learning. Fossilization of vocabulary has an impact on second language learners' vocabulary and proficiency in the target language, which is a common phenomenon in second language acquisition. This paper explores the causes and countermeasures of vocabulary fossilization in second language acquisition. Vocabulary fossilization refers to the stagnation or regression of language ability after learners reach a certain level in foreign language study. It first emphasizes the foundational role of vocabulary in language learning and points out the prevalence of fossilization in the field of language acquisition. Then, it delves into internal factors (such as lack of emotional engagement and negative transfer from the native language) and external factors (such as low quality of vocabulary input and misunderstandings of different cultures) that influence vocabulary fossilization. Four strategies are proposed to mitigate the impact of vocabulary fossilization: stimulating learners' emotional engagement, reducing negative transfer from the native language, focusing on the quality of vocabulary input, and learning about different cultures. Finally, the inevitability of vocabulary fossilization is emphasized, highlighting the need for scholars, teachers, and learners to work together to continuously explore and research methods to address vocabulary fossilization issues for improved second language vocabulary acquisition.

Keywords: Second Language Acquisition; Fossilization Phenomenon; Interlanguage; Vocabulary Acquisition.

1. Introduction

In second language acquisition research, the growth trajectory of English learners often

shows a trend from basic to advanced. In early stages, learners rapidly absorb foundational knowledge under teacher guidance, showing enthusiasm and potential. However, many face a significant barrier—fossilization. This phenomenon is prevalent across all levels of language learning, particularly in vocabulary, severely hindering language proficiency.

Vocabulary serves as the fundamental building block of language, crucial for effective communication and precise expression. It underpins both spoken and written communication and is essential for phonetics and grammar. Flexible vocabulary use highlights language richness and complexity, placing vocabulary instruction at the core of language teaching.

Despite this, vocabulary fossilization poses a major challenge, making it difficult for learners to further enhance their vocabulary after reaching a certain level. This phenomenon limits language use abilities and may weaken learners' enthusiasm and motivation for language study.

The aim of this paper is to review current research on vocabulary fossilization, exploring its manifestations and influencing factors in the second language acquisition process, along with proposing possible solutions. Analysis focuses on improving learning environments, optimizing strategies, and enhancing cognitive abilities to overcome vocabulary fossilization, promoting overall growth in vocabulary and language use. Through this research, valuable insights and guidance for vocabulary instruction in second language acquisition are provided.

2. Fossilization

The above phenomenon is known as fossilization in the field of language acquisition. The concept of “fossilization” was introduced by Larry Selinker[1]. He considers fossilization as a state where specific language knowledge related to the target language

becomes fixed in the interlanguage of foreign language learners. His research revealed that 95% of foreign language learners, after reaching a certain proficiency level, experience stagnation or regression. Fossilization refers not only to persistent errors but also to correct forms. It occurs in phonetics, phonology, morphology, syntax, semantics, discourse, and pragmatics. Fossilization occurs at any learning stage and features a process, permanence, and resistance to change.[2].

Some Chinese researchers focus on this field. Deng Lianjian defines vocabulary fossilization as the phenomenon where the development of productive vocabulary reaches a certain stage and then stops progressing[3]. Liu Ting and Li Yanwei primarily study vocabulary fossilization from the perspective of vocabulary acquisition[4].(Figure 1.)

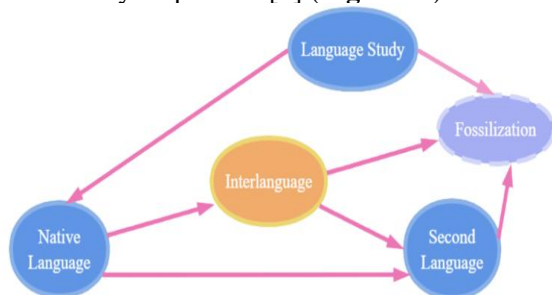


Figure 1. The relationship Between L1, L2, Interlanguage and Fossilization.

This paper analyzes the internal and external factors that contribute to the fossilization phenomenon in vocabulary acquisition and proposes corresponding strategies based on teaching practices to mitigate the impact of fossilization on vocabulary learning.

3. Causes of Vocabulary Fossilization

3.1 Internal Factors

3.1.1 Lack of learning affect

The affective filtering hypothesis proposed by Krashen refers to the affective barriers that prevent learners from fully digesting and absorbing language input in the process of language learning[5]. These affective barriers are learners' resistance to learning a second or foreign language due to certain psychological factors. Affective filtering mechanisms are categorized into high affective filtering and low affective filtering. The former refers to negative emotions such as anxiety, which prevent learners from receiving comprehensible input, while the latter refers to

positive emotions such as happiness and excitement, which allow learners to receive comprehensible input. In other words, the lower the affective filter, the more favorable it is for learners.

In China, students learn vocabulary not only for communicative needs, but also to cope with exams and to fulfill the purpose of studying abroad, which belongs to an instrumental motivation. Daily domestic language exams, such as Grade 4-6, Grade 4-8, or IELTS and TOEFL for studying abroad, bring a lot of pressure to students. As a result, students are prone to negative anxiety during the preparation process, which belongs to high affective filtering. High emotional filtration will affect vocabulary input and absorption, learners produce aversion, unwilling to continue learning vocabulary, easy to petrify phenomenon.

3.1.2 Negative effect of L1 language

For second language learners who have mastered the basic vocabulary and grammatical structures of their mother tongue, their learning of the vocabulary and semantic structures of the second language will certainly be influenced by the vocabulary and semantic structures of their mother tongue[6]. The differences between the mother tongue and the second language may cause interference in the learning of the second language, which is called negative transfer. Learners often use some rules of their mother tongue as a temporary transition, and in the process produce intermediary language to help learners understand and memorize, so that a habit is formed, which will cause language fossilization. For example, the word "black tea" in Chinese is not expressed as red tea in English, but as black tea. If it is translated as red tea, it is a disturbance of Chinese thinking to English.

3.2 External Factors

3.2.1 Low quality of vocabulary input

According to Krashen's input hypothesis, language acquisition occurs when learners are exposed to "comprehensible input," which is slightly beyond their current language proficiency level, and when they focus their attention on understanding meaning or information rather than form[7]. When learners engage in vocabulary input, sometimes the input they receive is of inferior

quality through interlanguage.

Taking English textbooks used in China as an example, these textbooks emphasize English word spelling and their Chinese meanings, with each English word accompanied by its corresponding Chinese translation. This form of vocabulary input, to some extent, restricts students' thinking, as it confines them to the meanings of words as annotated in the textbooks, lacking context and comprehensive understanding.

Additionally, English exams in China do not prioritize listening and speaking skills, and grades heavily depend on word spelling and mastery of grammatical forms. This phenomenon may lead learners to misunderstand that achieving excellent grades is solely based on the accumulation of a large number of words. As a result, learners may not pay attention to the quality of vocabulary input and only engage in surface-level learning of a large quantity of words, which contributes to the occurrence of fossilization.

3.2.2 Misunderstanding of different culture

Vocabulary fossilization occurs due to changes in meaning and usage of words in different languages and cultural contexts caused by cultural differences. This type of fossilization includes translation fossilization, loanword fossilization, and sociolinguistic fossilization. For example, the English term "mindfulness" is a concept inspired by Zen Buddhism, referring to being fully present and aware. However, when translated into Chinese, it is directly translated as "zheng nian", losing the cultural background knowledge, which is a typical example of translation fossilization.

Loanword fossilization refers to the situation where a loanword introduced into another language may undergo changes in meaning or usage due to cultural differences. For instance, the English word "cool" is fossilized as an adjective in German, meaning "cool" or "trendy," with a slightly different meaning from its original sense in English. Sociolinguistic fossilization occurs when vocabulary usage changes in different cultures due to differences in social customs and etiquette. For example, the common Chinese greeting "ni chi le ma?" (Have you eaten?) is not commonly used as a greeting in English.

In English classroom teaching, learners often fail to understand the connotations and cultural meanings behind vocabulary and only acquire

their literal meanings. Target language cultural knowledge encompasses language usage rules, cultural traditions, social customs, and more. Most teachers have not invested much in cultural knowledge and cultural differences.

Objectively speaking, the lack of cultural knowledge may exacerbate learners' misunderstandings of vocabulary comprehension. Moreover, English vocabulary has numerous polysemous and homophonic phenomena, each with its own developmental history and cultural background. If learners only have a superficial understanding without grasping the underlying aspects of these vocabulary items, they may mistakenly believe that they have fully mastered them. Over time, the meanings of vocabulary fossilize.

4. Strategies to Mitigate Vocabulary Fossilization

For language learners who experience vocabulary fossilization, which is often temporary, vocabulary fossilization could be mitigated by identifying the root causes and employing appropriate language learning methods, teaching techniques, and advanced instructional technologies.

Wang Yin provided four suggestions to prevent the problem of fossilization in word meaning comprehension[8]. They are as follows:

- (1) Gain a precise understanding of the literal meaning of words and clarify their referents.
- (2) Use bilingual dictionaries to understand the accurate meanings of English words.
- (3) Familiarize oneself with the cultural background to truly grasp the essence of the language.
- (4) Abandon previous misconceptions, continuously correct past mistakes in learning, and rectify fossilized phenomena that have formed in the mind over the years. **(Figure 2.)**

Causes of Vocabulary Fossilization

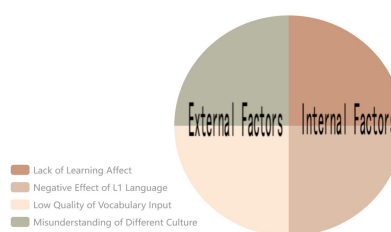


Figure 2. Factors of Vocabulary Fossilization

However, the article argues that these four suggestions are too broad when addressing the issue of vocabulary fossilization. Based on theory and current practical situations, the article further refines four specific strategies to avoid vocabulary fossilization.

4.1 Stimulating Students' Learning Affect

According to Krashen's Affective Filter Hypothesis, the importance of affective factors in second language acquisition is emphasized. When learners are in a relaxed, positive, and confident state, "comprehensible input" receives positive responses and has a greater chance of reaching the language acquisition part of the brain, thereby achieving effective learning outcomes[9].

Teachers' instructional activities should be based on the Affective Filter Hypothesis to create a positive emotional environment.[10] Connect learning English vocabulary with positive emotions, such as learning vocabulary through interesting stories, jokes, music, movies, or games. Utilize engaging learning materials and activities to make students feel enjoyment and a sense of accomplishment during their learning process. Alternatively, relate vocabulary learning to students' personal interests or areas of interest, such as vocabulary related to music, sports, travel, etc. This stimulates students' interest and make them more willing to learn and master these vocabulary items.

Teachers use emotional connections to help students memorize and understand vocabulary. Contextual stories, associative images, or emotional memory techniques can be employed to assist students in memorizing vocabulary and linking them to specific emotional experiences. Additionally, create a positive, supportive, and encouraging learning environment where students feel respected and valued. Encourage students to share their learning difficulties and success experiences with each other, as well as their positive motivations.

Through these approaches, students' motivation for English vocabulary learning can be stimulated from an emotional perspective, helping them learn and master vocabulary more effectively and reducing the occurrence of vocabulary fossilization.

4.2 Reducing L1 Negative Transfer

In second language vocabulary fossilization, learners often rely on a single vocabulary input method, which results in negative transfer from their first language. To address this issue, learners should diversify their vocabulary input through several methods. Firstly, expanding sources beyond textbooks by reading original books, watching English movies, and listening to formal speeches exposes learners to varied vocabulary. Secondly, using vocabulary tools like online dictionaries and language learning apps helps learners find synonyms and related words, enhancing their understanding and contextual usage. Engaging in communication through language exchanges and conversations with native speakers enables learners to acquire new vocabulary and practice its application. Lastly, regularly reviewing learned vocabulary reinforces memory, improves accuracy, and enhances fluency. Diversifying vocabulary input methods effectively reduces negative transfer from the first language[11].

4.3 Focusing on the Quality of Vocabulary Input

In second language vocabulary learning, prioritizing the quality of vocabulary input is essential. High-quality input allows learners to build accurate and extensive vocabulary knowledge, enabling fluent use in practical contexts.

Learners should choose appropriate sources for vocabulary input. High-quality sources provide accurate and authoritative vocabulary information. Reliable dictionaries, textbooks, and language learning resources serve as primary sources. Additionally, authoritative online vocabulary and corpus databases offer authentic sentence examples and contexts, aiding understanding and mastery of vocabulary usage. Furthermore, learners must prioritize accuracy and diversity in vocabulary. When engaging in vocabulary input, learners should ensure the accuracy of the vocabulary learned, especially when using online translation tools. Verifying the correctness of translations and vocabulary remains essential. Learners should also pay attention to the diversity of vocabulary, learning and memorizing synonyms, antonyms, and related words, which helps enrich the usage and meanings of vocabulary[12].

Moreover, learners enhance input quality

through vocabulary learning techniques and strategies. For example, using mnemonic and association techniques aids vocabulary memorization, including creating flashcards, employing mnemonic associations, and devising memory plans. Applying vocabulary in practical contexts through output and practice helps consolidate memory and improve practical application. Lastly, consistent review and feedback play crucial roles in improving input quality[13]. Regularly reviewing and revising previously learned vocabulary consolidates memory. Seeking feedback and guidance through writing, speaking exercises, or interactions with others helps assess and improve vocabulary input.

By employing these methods, learners achieve higher-quality English vocabulary input and gradually reduce vocabulary fossilization. Through persistent input and practical application, their vocabulary proficiency improves steadily.

Prioritizing input quality significantly enhances second language vocabulary learning outcomes. By selecting appropriate sources, focusing on accuracy and diversity, employing effective techniques, and maintaining regular review and feedback, learners establish accurate and extensive vocabulary knowledge, applying it flexibly in real-life communication.

4.4 Learning Different Culture

Language and culture are inseparable; they influence and shape each other. Language serves as a tool for expressing culture, reflecting the values, traditions, beliefs, and customs of a community. Through language, people convey and communicate various cultural information, including history, ways of thinking, social relationships, and identity. At the same time, culture also determines the development and evolution of language, and through cultural norms and contexts, language has formed diversity in different social and cultural environments. Therefore, learning a language inevitably involves understanding and respecting its culture, and cultural awareness also emerges through language.

This requires second language teaching to not only focus on knowledge instruction but also include cultural education[14]. Learning cultural background knowledge and

understanding the idiomatic expressions of different cultures help comprehend and use more accurate vocabulary.

Reading relevant cultural books, watching documentaries, or engaging in conversations with people from different cultural backgrounds increase understanding of other cultures and reduce vocabulary fossilization caused by cultural differences. Actively interacting with native English speakers, especially those who have knowledge of the target language's cultural background, can be beneficial. They help understand and correct vocabulary fossilization issues that arises from cultural differences. Through interaction with them, one gains a better understanding of how they use vocabulary in different cultural contexts. Utilizing diverse learning resources related to learning English vocabulary helps increase understanding of different cultures and contexts. Selecting materials, movies, music, news, etc., that have a multicultural and international perspective allows exposure to vocabulary and expressions from various cultural backgrounds.

By employing these methods, one reduces vocabulary fossilization caused by cultural differences and enhance cross-cultural communication skills. Additionally, interacting with English learning partners and native speakers, along with engaging in extensive reading, helps learners master and apply English vocabulary effectively.

5. Conclusion

Vocabulary fossilization is an unavoidable issue in the process of second language acquisition, and it has been a subject of serious consideration and exploration by experts and scholars. This paper analyzes the internal and external factors contributing to fossilization and proposes specific strategies to mitigate it. Addressing these factors can improve vocabulary acquisition in second language learning and gradually reduce fossilization. To overcome the barriers that vocabulary fossilization poses to learners' continued improvement, continuous exploration and research by scholars, along with the collective efforts of teachers and students, are essential.

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