

Causes of Interlanguage Fossilization and the Coping Strategies

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Abstract: Interlanguage fossilization is an important topic in the study of second language acquisition, which involves changes and solidifications in the language acquisition process that learners develop while learning a second language. The purpose of this paper is to explore the concept of interlanguage fossilization, its causes and its implications in language teaching and education. This paper firstly introduces the concepts of interlanguage language and fossilization, and then focuses on the causes of this phenomenon, including both intra-individual and external environmental factors. Then, the paper puts the impact of the interlanguage fossilization phenomenon in language teaching and education, and how to prevent or slow down the occurrence of it through effective teaching strategies into discussion. Through an in-depth study of interlanguage fossilization, the language acquisition process of learners could be better understood, thus contributing more effectively to the development of language teaching and education.

Keywords: interlanguage, fossilization, teaching strategies, second language acquisition, linguistics.

1. Introduction

Research in the field of second language acquisition has made significant progress in exploring several aspects of the language acquisition process in learners. However, one of the important but not yet fully explored topics is the phenomenon of interlanguage fossilization. Interlanguage fossilization, according to Selinker in 1972 [1], refers to the phenomenon of gradual fossilization of language structures such as linguistic items and grammatical rules when learners acquire a second language. At present, although some studies are focusing on the causes and effects of it, the understanding of its specific mechanisms is still limited, and there is also a relative lack of research on teaching strategies. The purpose of this paper is to probe into interlanguage fossilization in depth and analyze it in terms of concepts, causes, effects and teaching strategies. Specific issues include the definition and characteristics of interlanguage fossilization, the factors affecting it, and how to slow down or avoid it through effective teaching strategies. The research method mainly adopts the literature review method to analyze the previous research results and theories. This study is of great significance. Through a deeper understanding of the phenomenon of interlanguage fossilization, it can provide more effective guidance and support for language teaching and education, as well as provide new insights and directions for second language acquisition theory and practice. In the future, this study

will hopefully help to reveal the mechanism of interlanguage fossilization and propose more precise teaching strategies, thus promoting learners' language development.

2. Causes of Interlanguage Fossilization

There are several causes for second language learners to develop interlanguage fossilization, including internal and external ones. Generally, the internal causes include age, motivation, mother language transfer, and negative emotional feedback, while the external causes mainly refer to learning strategies, and teachers' influence [2].

2.1. Internal Factors

The critical period hypothesis in interlanguage fossilization, according to Lennerberg and Lamendella, refers to the fact that there exists a specific window of time in the process of language acquisition, known as the critical period, during which learners are more sensitive and effective in the acquisition of the target language. During this critical period, it is easier for learners to form accurate linguistic structures, while in the subsequent period, language acquisition will become more difficult.

The critical period hypothesis is largely based on observations of the rate of language acquisition and achievement demonstrated by children when learning their mother tongue, and the challenges and constraints faced by adults when learning a second language. According to Lennerberg, the period that is most suitable for people to learn a foreign language is before youthhood (generally from 12 to 15). A learner's risk of developing fossilization could surge if he fails to acquire native speakers' ability in foreign language learning [3].

In the context of interlanguage fossilization, the critical period hypothesis factor refers to the fact that if learners fail to obtain sufficient target language input and acquisition experience before the critical period, it may lead to the occurrence of fossilization. In other words, if learners miss the critical period, start learning the second language late, or are exposed to insufficient quality of linguistic input before the critical period, it may increase the risk of fossilization.

In addition, some studies have also pointed out that even if there is no obvious critical period when adults learn a second language, learners are more sensitive to the acquisition of the target language in the early stages of learning, and the linguistic structures formed at this time are more likely to be solidified in the subsequent process, which may affect the occurrence of interlanguage fossilization.

A learner of a second language could ask himself a simple question: what is the purpose of learning a second language? The two main aspects of motivation in language acquisition are learning a language for instrumental purpose and for comprehensive purpose respectively. Learning for an instrumental purpose refers to the fact that learners learn a language in order to achieve some practical goals, such as getting better job opportunities in the workplace or improving the quality of life. Learning for a comprehensive purpose, on the other hand, refers to the fact that learners learn out of interest and identification with the target language culture and society. These two types of motivation play different roles in the learning process and influence learners' attitudes and behaviors.

Learning for instrumental purposes is especially important in the early stages of language acquisition. A learner may start learning a language because of a practical need, such as to pass an exam like CET-4 or final examination or to cope with an interview.[4] This kind of motivation can lead learners to invest more time and effort in learning and to be more persistent in the face of difficulties. However, if one relies solely on instrumental motivation, once they achieve their instrumental purpose, they may lose interest in the learning process, leading to a decrease in motivation.

In contrast, learning for a comprehensive purpose focuses more on the learner's interest in and identification with the target language culture and society. When learners' knowledge of the target

language gradually deepens and they begin to experience the fun and fulfilment of language learning, integrative motivation will become an important driving force for learning. Through understanding and experiencing the culture of the target language, learners will be more engaged in learning, and at the same time more willing to accept challenges and break through their language barriers.

If one wants to learn a second language well, he should his attitude toward the target language, otherwise, he would find it hard to deal with fossilization. A famous example would be Professor Chien-Shiung Wu, a late scientist who spent 56 years in the U.S. since 1936 when she was only 24 years old. She used English as a tool all her life to conduct scientific research instead of communicating, so she found her language difficulties in the early years insurmountable throughout her entire life [3,5].

Negative native language transfer refers to the phenomenon that in the process of learning the target language (L2), the characteristics of the learner's native language (L1) interfere with the target language, resulting in language errors. This kind of negative transfer may be manifested in various aspects such as pronunciation, grammar, vocabulary and pragmatics, and is an important concept in the study of L2 acquisition. Among these aspects, the most important one lies in the pronunciation field, namely foreigners.[6]

Negative transfer at the phonological level can lead to learners' long-term pronunciation errors in the target language. Phonemes and pronunciation rules in the native language can interfere with learners' target language pronunciation, preventing them from accurately grasping the phonetic features of the target language. These errors will solidify in long-term use and form the phenomenon of fossilization. For example, when learning English, Chinese students don't usually pay enough attention to long and short vowels, as they do when speaking Chinese.[7]

Negative transfer of grammatical structures is also one of the important reasons for fossilization. Grammatical rules of the native language will be transferred to the target language, leading to the recurrence of grammatical errors. For example, learners may unconsciously apply syntactic structures from their native language to the target language, forming sentence structures that do not conform to the norms of the target language. The errors resulting from this kind of transfer are not corrected in the long period of language use and gradually solidify as part of the mediated language.

Negative transfer at the lexical level can also lead to the phenomenon of fossilization. When learners use the target language, they are often influenced by the vocabulary and expression habits of their native language, leading to errors in vocabulary use. For example, direct translation of vocabulary or expressions in the native language may not be applicable in the target language, and these errors are also fossilized in long-term use.

Ellis believes that communication transmits not only emotion but also information. Feedbacks of such transmission can have a positive, neutral or negative psychological impact on both parties (teacher and student). Different responses will have different degrees of positive, neutral or negative enhancement on second language learners. This is another reason why fossilization forms. In other words, it can be called "communicative pressure", which is particularly common in the oral communication of foreign language learners. Because speakers could be in an extremely tense or relaxed mode during communication, and they could make a lot of mistakes in their speech because of such mentalities. As a result, they may return to a "degraded" state, which is a manifestation of fossilization [2]. A typical example can be observed in Chinese English class, where students are afraid to speak for fear of being mocked by classmates or even teachers.

2.2. External Factors

When learning a second language, fossilization due to improper learning strategies is quite common. Sims suggested that during the process of acquiring a first language, using inappropriate learning strategies can lead to the fossilization of different linguistic elements, such as phonological,

morphological, syntactic, lexical, psycholinguistic, or sociocultural aspects. Learning strategies include both general approaches and specific techniques used in acquiring a second language. However, the former is more likely to cause fossilization in language competence. While effective learning strategies help in processing language input and improving the quality of second language acquisition, some learners may overuse these strategies, leading to issues like overgeneralization, simplification, incomplete rule application, and insufficient knowledge of the second language. [8]

Sims pointed out that the repeated use of ineffective strategies, which do not help in completing a language learning task, can hinder a learner's progress. He concluded that understanding the link between fossilization and learning strategies is vital for addressing persistent errors as we better understand the role of information processing in second language acquisition.

Building on this, learning strategies include various methods, management techniques, and activities used during the learning process, encompassing cognitive, metacognitive, and social strategies. Selinker argued that learners' choice of strategies is influenced by their cultural background. For example, Chinese learners of foreign languages often rely on dictionaries or classmates for help rather than consulting teachers, which reflects Chinese cultural norms.

Fossilization due to learning strategies is especially common among learners. In their learning process, learners often simplify the target language, with syntactic structures being one of the most commonly simplified aspects. [7]

The proficiency and teaching approach of a teacher directly influence the learning outcomes of foreign language students. The teacher must possess comprehensive and precise knowledge. If the teacher conveys any incorrect information to the learners, this misinformation can become ingrained in their understanding, leading to interlanguage fossilization. This process makes it exceedingly difficult for learners to correct errors once they have taken root, thereby impeding their progress and proficiency in the language. [3]

Furthermore, the teaching methods employed by the instructor play a significant role in shaping the learner's engagement and motivation. Innovative and interactive teaching techniques, such as the use of multimedia tools, immersive language experiences, and practical conversational exercises, can greatly enhance the learning experience. On the other hand, outdated or overly rigid teaching practices can lead to disinterest and a lack of motivation, which can severely hinder the learning process.

Additionally, a supportive and encouraging learning environment is essential. Teachers who provide regular, constructive feedback help learners track their progress and identify areas for improvement. This positive reinforcement fosters a safe space for learners to take risks and make mistakes, which are crucial for language acquisition.

Ultimately, the combination of a teacher's depth of knowledge and effective, engaging teaching methods significantly impacts the success of foreign language learners. Investing in the continuous professional development of teachers is essential to ensure high-quality language education and successful learning outcomes.

3. Coping Strategies for Interlanguage Fossilization

Although there are different types of factors that contribute to interlanguage fossilization, the author also rise some countermeasures for second language learners and teachers to overcome such effects.

3.1. Stimulating Learners' Intrinsic Motivations

In order to solve the dilemma of transition language rigidity caused by second language learners' learning emotions, second language teachers need to cultivate students' intrinsic motivation and interest in learning.

Teachers can choose different teaching contents and methods according to the learners' psychological characteristics.[9] For example, in the initial classroom, teachers can show students the charm of the second language itself, present the lifestyle of native speakers of the second language, and the peculiarities of the culture to attract students' interest, and at the same time, pay attention to reduce the shock of the language and culture, and reduce the amount of serious and complex content; as students grow older, the content of the curriculum becomes more diversified and systematic, the Chinese-English contrastive teaching mode can be used, and the content can be linked to subjects such as politics and history. As students grow older, the curriculum content can be diversified and systematized, and the Chinese-English contrasting teaching mode can be adopted, and the teaching content can be linked and contrasted with subjects such as politics and history, which not only achieves the integration of the curriculum, but also enables the students not to reject the teaching content, and at the same time, to a certain extent, it can consolidate continuously the learning content of the two subjects in contrast. As a foreign language teacher, we also need to understand students' negative emotions such as anxiety and the rigidity of the transition language, so as to reduce learners' rejection and enhance their confidence and interest in foreign language learning.

3.2. Reducing The Negative L1 Transfer

Negative transfer is a significant factor contributing to fossilization. When learners' proficiency in a second language is insufficient for self-expression, they naturally rely on their native language. Consequently, some scholars argue that second language learners should not be required to use the second language until they have received enough language input to express themselves clearly without depending on their native language. Otherwise, inappropriate expressions may become fossilized. Therefore, to minimize negative transfer from the native language, it is essential to ensure adequate language input. Learners need to build and enhance their language knowledge through reading and intensive training, ensuring their second language proficiency is sufficient to support self-expression and thereby reduce interference from their native language. [10]

4. Conclusion

This paper firstly probes into causes of interlanguage fossilization including age, motivation, negative native language transfer, negative affective feedback, learning strategies, and teacher's influence. To varying degrees, these factors hinder learners' language progress and stagnate their language proficiency.

The age factor suggests that young learners are more likely to acquire a new language while adult learners are more likely to fall into fossilization. In terms of motivation, the lack of intrinsic motivation often leads to learners' inability to sustain their engagement in language learning, which in turn affects language acquisition. Negative native language transfer refers to the influence of the learner's native language in the use of the target language, resulting in language errors and solidification. Besides, Fossilization is also exacerbated to a certain extent by inappropriate learning strategies, negative affective feedback, and teachers' teaching styles.

In order to deal with the problem of mediated language fossilization, this paper also proposes some effective solutions: intrinsic motivation should be stimulated to enhance learners' interest and motivation by setting clear learning goals and providing positive feedback. Besides, reducing the negative influence of the mother tongue on the target language, and improving the learners' mastery of the target language by reinforcing the target language usage environment and cultural learning also make contribute to reduce the negative effect of second language learning.

To sum up, interlanguage fossilization is a complex phenomenon that requires comprehensive consideration of various factors. By implementing appropriate strategies and methods, the

fossilization phenomenon can be effectively slowed down or overcome, and the effect of language learning can be improved. It is hoped that this paper can provide valuable references for language educators and learners and promote the further development of language acquisition research.

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