

FOSSILIZATION IN CHINESE STUDENTS'
ENGLISH LANGUAGE ACQUISITION

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Abstract

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Under the Supervision of Yuanyuan Hu, Ph.D.

It is universally acknowledged that language fossilization has become a big obstacle for second language learners to be very successful in their language learning. That is the case with Chinese learners of English. This paper explores fossilization among English learners in China. Major research questions to be addressed in the paper are: 1) what is fossilization? 2) what are the causes of fossilization among Chinese learners of English? and 3) how can the fossilization in English language acquisition of Chinese students be reduced? Fossilization in SLA refers to the phenomenon that language errors become fixed in a learner's interlanguage. Studies on the causes of fossilization show internal factors and external factors leading to fossilization. Fossilization in Chinese students' English language acquisition is mainly caused by cultural differences and inappropriate teaching methods. To reduce fossilization among Chinese learners of English language, teachers are recommended to set up appropriate teaching goals, reduce the mother tongue interference, provide appropriate feedback, and apply the language-culture connection principle.

Key words: fossilization, second language acquisition, English language learning and teaching.

TABLE OF CONTENTS

	PAGE
APPROVAL PAGE	i
TITLE PAGE	ii
ACKNOWLEDGMENTS	iii
ABSTRACT	iv
TABLE OF CONTENTS.....	v
CHAPTER	
1. INTRODUCTION	1
Introduction	
Statement of the Problem	
Definition of Terms	
Method of Approach	
2. REVIEW OF LITERATURE	3
Definition of Fossilization	
Types of Fossilization	
Studies on Causes of Fossilization	
Studies on Fossilization among Chinese Learners of English	
Summary	
3. CONCLUSIONS AND RECOMMENDATIONS	10
REFERENCES	14

Chapter 1 Introduction

Fossilization is a widespread phenomenon in second language acquisition. According to Selinker (1972), “Fossilizable linguistic phenomena are linguistic items, rules and subsystems which speakers of a particular native language will tend to keep in their interlanguage relative to a particular target language, no matter what the age of the learner or amount of explanation and instruction he receives in the target language” (p. 209).

Fossilization is common among learners of English in China. It has become a big obstacle to some Chinese students’ success in their English language acquisition (Han, 2003). English competence is very important to Chinese students because students with limited English language competence may fail to pass mandatory English proficiency tests or some qualification tests, and consequently, cannot get an education or jobs to which they aspire. Fossilization has a bearing not only on the English language competence of Chinese students, but also on China’s English language teaching. Therefore, it is of great significance for Chinese teachers and students to get a better understanding of fossilization and to overcome fossilization in English language learning. This paper aims to explore fossilization among English learners in China.

Statement of the Problem

What is fossilization? What are the causes of fossilization among Chinese learners of English? How can the fossilization in English language acquisition of Chinese students be reduced? These questions will be explored.

Definition of Terms

Fidler (2006) defines fossilization as follows: fossilization is the phenomenon that “most adult second language learners never reach native-like proficiency in their target languages” (p. 398).

Method of Approach

To answer the research questions, the author conducted a literature review. Four aspects in relation to fossilization were identified and reviewed in Chapter two: (1) definition of fossilization; (2) types of fossilization; (3) studies on causes of fossilization; and (4) studies on fossilization among Chinese learners of English. Then the findings were summarized and synthesized, and recommendations made.

Chapter 2 Review of Related Literature

This chapter reviews the literature on the definition, types, and causes of fossilization. It reviews studies conducted by some western researchers as well as Chinese researchers.

Definition of Fossilization

The definition of fossilization was first introduced into the field of second language acquisition (SLA) by Selinker (1972) as follows: “Fossilizable linguistic phenomena are linguistic items, rules and subsystems which speakers of a particular native language will tend to keep in their interlanguage (IL) relative to a particular target language (TL), no matter what the age of the learner or amount of explanation and instruction he receives in the TL” (p. 209). Fossilizable structures tend to remain as “potential performance” (p. 207), re-emerging in the productive performance of an IL even when seemingly eradicated, and this re-emerged potential performance is what has given rise to Selinker’s (1972) definition of fossilization.

Types of Fossilization

Individual fossilization v.s. group fossilization. According to Selinker & Lamendella (1978), there are individual fossilization and group fossilization among language learners. Individual fossilization is divided into two types: error reappearance and competence fossilization. The former is the repeated appearance of inappropriate IL structures. It is frequently found among beginners or learners with low proficiency. In contrast, competence fossilization is usually found in learners who have been learning the TL for a long time or who are very fluent in the second language (L2). In other words, if an L2 learner is unable to convert his/her L2 input into intake, or is unable to get rid of the inappropriate structures in his/her IL, he/she encounters competence fossilization.

Group fossilization is the process through which some established language variations have

been widely used by the whole community. Such variations are regarded as the standard language of the community, and lead to a new dialect, such as Indian English. Although the group fossilization is not directly related to SLA, studies on it often throw light on individual fossilization (Selinker & Lamendella, 1978).

Temporary fossilization v.s. permanent fossilization. Considering the varying degrees among learners' fossilized interlanguage, fossilization can be grouped into temporary fossilization and permanent fossilization. On one hand, researchers believe that fossilization is a permanent condition. That is to say, once a learner's IL ceases to make further progress toward the TL, the IL will not improve regardless of the amount of exposure and instruction the learner receives in the TL (Liu, 2007). This type of fossilization has also been referred to as hard fossilization. Accordingly, it is hypothesized that permanent fossilization is typical among adult language learners, especially in pronunciation (Sims, 1989). On the other hand, several researchers claim that fossilization is just a temporary condition. That is to say, given certain appropriate conditions, fossilized interlanguage can be developed (Liu, 2007). This type of fossilization has also been referred to by Sims (1989) as soft fossilization or jellification. Sims (1989) suggests that temporary fossilization may take place due to social and psychological variations, inadequate instruction, and so on.

Studies on Causes of Fossilization

To explain the causes of fossilization, Selinker (1972) put forward the five processes hypothesis, and later, Ellis (1994) concludes that there are internal factors and external factors causing fossilization in L2 acquisition.

Selinker's five processes hypothesis. Selinker (1972) hypothesizes that five psycholinguistic processes lead to fossilization, namely, "native language transfer, transfer of

training, inappropriate strategies of SLA, inappropriate strategies of L2 communication, and the overgeneralization of TL rules” (p. 217).

Language transfer is regarded as the most decisive factor leading to fossilization. Transfer of training means that continuous and excessive training on certain structures causes learners to fail to develop new structures in the TL. Inappropriate strategies of SLA refer to inappropriate strategies used by learners in their learning process. Inappropriate strategies of L2 communication mainly refer to strategies like avoidance, simplification and reduction of lexicon that learners tend to make use of for the sake of fluency in their L2. The overgeneralization of TL material refers mainly to the overgeneralization of TL grammar rules, which arises when learners apply a rule in a situation where the rule does not apply (Selinker, 1972).

Ellis’ internal and external factors. Based on Selinker’s conclusion, Ellis (1994) has categorized the possible causes of fossilization into internal factors and external factors. He summarized those factors in the table below.

“Table 9.1: Factors hypothesized to influence fossilization” (Ellis, 1994, p. 354)

	Factor	Description	Reference
Internal	1. Age	When learners reach a critical age their brains lose plasticity, with the result that certain linguistic features cannot be mastered.	Scovel (1988)
	2. Lack of desire to acculturate	As a result of various social and psychological factors, learners make no efforts to adopt TL cultural norms.	Schumann (1978)
External	1. Communicative	Persistent pressure to communicate	Higgs and Clifford

	pressure	ideas that require the use of language that exceeds the learner's linguistic competence leads to fossilization.	(1982)
	2. Lack of learning opportunity	Learners lack opportunities for receiving input and also for using the L2.	Bickerton (1975)
	3. The nature of the feedback on learner's use of L2	Positive cognitive feedback (signaling "I understand you.") results In fossilization; negative feedback (signaling "I don't understand you.") helps avoid fossilization.	Vigil and Oliver (1976)

Studies on Fossilization among Chinese Learners of English

Causal factors related to cultural differences. In light of Schumann's (1986) acculturation model, Ren (2006) accounts for the causes of fossilization from the perspective of social and cultural differences. Ren described the major concept of Schumann's acculturation model as follows: "the learners tend to keep a certain social and psychological distance from the target language if their social culture is too far from that of the target language" (p. 27). She pointed out that in this way, the input and output in the process of language processing may be limited because learners seem to be learning a foreign language without an appropriate language environment or context. Under such conditions, learners have to rely on their mother tongue to process language materials. Consequently, their interlanguage is not developed in the direction of the target language, and fossilization occurs (Ren, 2006).

Li (2007) also suggests that the cultural difference accounts for fossilization. To demonstrate

her above conclusion, Li cited two typical sentences with errors made by Chinese students—“The price is very *cheap*”; and “*Because* John went walking in the freezing rain, he caught cold” (p. 31). In the first example sentence, the word “*cheap*” was misused, and the use of “*because*” is inappropriate. In Chinese, the word “便宜” (便宜 means “cheap”, antonym of “expensive”) can be used to modify both the price and goods, so some Chinese students naturally make a sentence like “The price is very cheap.” However, English speakers would never use “cheap” to modify “price.” They may say “the price is low” or “it is a bargain.” As for the other sentence, “Because John went walking in the freezing rain, he caught cold,” there is no grammatical error in the sentence, but the word order is inappropriate. The sentence can be rewritten as follow: “John caught cold because he went walking in the freezing rain”, which sounds more like a good English sentence. In Chinese language, a declarative sentence is normally following the chronological order or cause-effect order, and the central message always comes after the background information. Nevertheless, the rule in English is quite different; essential information always comes first (Li, 2007).

Causal factors related to pedagogy. Tao (2004), a college English teacher in China, discusses the causes of fossilization from the perspective of teaching methods. According to her findings, grammar-translation method and audiolingual method can account for fossilization to some extent.

Grammar-translation method. According to Baker (2001), grammar-translation method is a historically dominant method of L2 teaching in school. The method emphasizes literacy development rather than the acquisition of oral skills. Students are expected to memorize vocabulary and verb declensions, learn rules of grammar and their exceptions, take dictation, and translate written passages (Baker, 2001).

On the basis of Baker's ideas, Tao (2004) describes the application of grammar-translation method in China as following. The textbooks are unpractical and contain a lot complicated grammar rules. A teacher spends some twenty minutes of a lesson explaining the grammar point of the day. Classes are taught in Chinese, with little active use of the target language. Students are expected to memorize the listed vocabulary. Besides, the students are given a series of translation exercises, both from English into Chinese and vice versa. The sentences in translation exercises are mainly for grammar practice. Although the heyday of this classical teaching method is gone, it is still adopted as the chief means for teaching English in many places of China, especially in the countryside (Tao, 2004).

Audiolingual method. Tao (2004) also mentions that many experts in China suggest that audiolingual method should be widely used instead of grammar-translation method. Audiolingual method is a behavioristic approach with the belief that the ability to make a sound or apply correct grammar is an automatic, unconscious act as a result of habit formation. This method emphasizes teacher-centered instruction and the use of drills and dialogue (Baker, 2001).

This method is widely used in China's middle school today, especially in cities. Tao (2004) describes the application of audiolingual method in China as following. Grammar is still the emphasis of the class. Teachers spend little time explaining grammar rules and vocabulary, and the mother tongue is hardly used in class. The grammar point is made clear in the textbook by the use of example sentences, accompanied by pictures which help make meanings obvious. The exercises are much more flexible. One of the central tenets of audiolingual method is that learning a language is largely a task of habit formation. Tao (2004) believes that when errors have been internalized, fossilization occurs.

Summary

Fossilization was first introduced into SLA by Selinker (1972). In addition to defining fossilization, Selinker (1972) points out that fossilization can be divided into individual fossilization and group fossilization. Meanwhile, some other researchers mention another two types of fossilization: temporary fossilization and permanent fossilization. There have been quite a few studies done on the causes of fossilization. Selinker (1972) puts forward the five processes hypothesis (i.e., native language transfer, transfer of training, inappropriate strategies of SLA, inappropriate strategies of L2 communication, and the overgeneralization of TL rules) to explain the causes of fossilization; Ellis (1994) has categorized the possible causes of fossilization into internal factors (i.e., age, and lack of desire to acculturate) and external factors (i.e., communicative pressure, lack of learning opportunity, and the nature of the feedback on learner's use of second language). In China, Ren (2006) and Li (2007) study the causal factors of fossilization among Chinese learners of English language from the cultural perspective, while Tao (2004) focuses on the pedagogical aspect.

Chapter 3 Conclusions and Recommendations

Fossilization in SLA refers to the phenomenon that language errors and non-target language forms become fixed in a learner's interlanguage. As fossilization is a universal phenomenon in SLA, and it is derived from multiple factors, it has become a hot research area during the last three or four decades with researchers attempting to seek out the causal factors and countermeasures.

For the time being, there have been quite a few studies done on the causes of fossilization, such as Selinker's (1972) five processes hypothesis, Ellis's (1994) internal factors and external factors, etc. As to the fossilization among Chinese learners of English, Chinese researchers probe into this phenomenon from different perspective such as the cultural perspective and the pedagogical perspective. The cultural differences and the inappropriate teaching methods are major causes of fossilization in Chinese students' English language learning.

Fossilization has become a big obstacle to some Chinese students' success in their English language acquisition. Fossilization has a bearing not only on the English language competence of Chinese students, but also on China's English language teaching. Therefore, it is of great significance for Chinese teachers and students to overcome fossilization in English language learning.

Suggestions for Teachers

Teachers play a key role in students' language acquisition. It is the teachers' responsibility to take steps to prevent fossilization among students. The following suggestions are provided to teachers, which may be helping in reducing fossilization among Chinese learners of English language.

Setting up appropriate teaching goals. Setting up appropriate teaching goals is the first

step for teachers to adapt good teaching methods and prevent fossilization. Teachers must divert their major attention from test grades to students' communicative competence when they set up teaching goals. Teachers should “give due attention to language use and not just usage, to fluency and not just accuracy, to authentic language and context, and to students' eventual need” (Brown, 2007, p. 79).

Besides, teachers are recommended to design teaching goals according to the language levels of their students. According to Krashen's (1982) input hypothesis, acquisition occurs when one is exposed to language that is comprehensible and that contains $i+1$. The letter “i” stands for the present level of a learner's interlanguage, and “+1” is a metaphor of language that is just a step beyond that level. Accordingly, the “i + 1” principle indicates that the teaching goals should be appropriately higher than learners' language level, not too high or too low. If the input is well beyond learners' current levels, learners do not have enough confidence of achieving the goals successfully; if the input is too easy, learners do not have much enthusiasm and are not motivated enough to achieve the goals.

Reducing the mother tongue interference. Xiong (1999), a senior professor in Beijing Foreign Language University, maintains that English learning is a besieging battle. What is besieged is the Chinese language knowledge in our brain, and the besieger is English. We direct our forces to capture one after another defense lines until we annihilate the pertinacious bulwark—Chinese interference—in our brain (Xiong, 1999). Professor Xiong's metaphor vividly indicates the pertinacity of Chinese interference and the real situation and difficulties of Chinese students in English language acquisition.

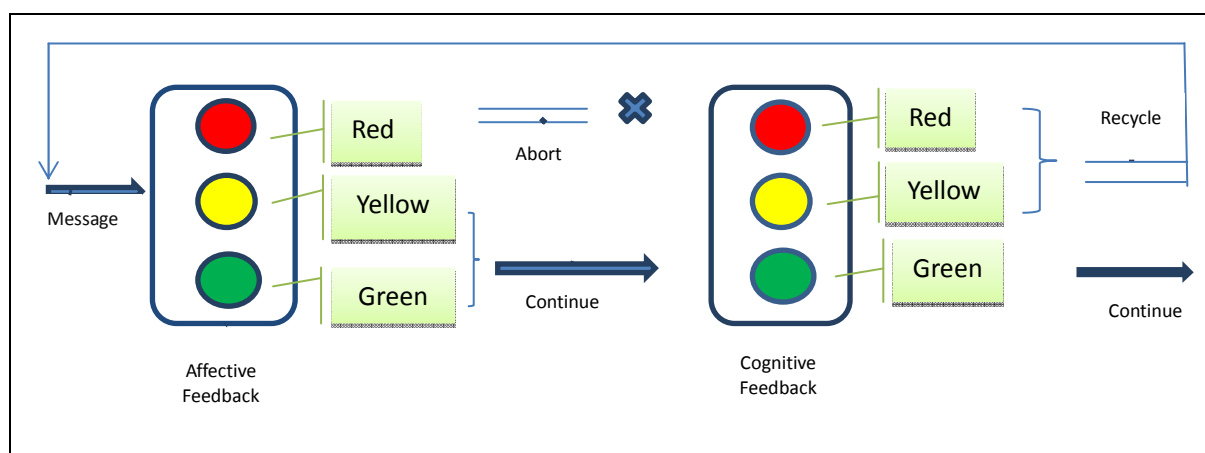
One of the suggestions for reducing mother tongue interference is to provide students with exposure to authentic language and context. Teachers should provide students authentic learning

materials in relevance with students' long-term goals and interests, conduct more activities related to the real world; encourage students to use authentic language in meaningful contexts, set up an all English learning environment; avoid English-Chinese code switching in class; and try to coax students into thinking directly in English.

In dealing with mother tongue interference, teachers should take students' errors seriously. According to Brown (2007), students' errors are the tips of icebergs, giving us the signals of the underlying system at work. Errors provide a window to learners' internalized understanding of the L2. Teachers are suggested to provide appropriate feedback and acquaint students with the causes of the errors (Brown, 2007).

Providing appropriate feedback. Brown (2007) points out that “one of the keys ... to successful second language learning lies in the feedback that a learner receives from others” (p. 345). He cited the Vigil and Oller's model, which clearly explains the role of feedback in influencing fossilization.

“Figure 19.8. Affective and cognitive feedback” (Brown, 2007, p. 345)



In the above figure, the green light means “I understand your message” and it is the symbol of noncorrective feedback. A red light is the symbol of corrective feedback that indicates more

alteration is needed. As for the yellow light, it refers somewhere between the complete green light and red light and suggests that learners should adjust or try again in another way in production. Brown (2007) points out that "...fossilization may be the result of too many green lights when there should have been some yellow or red light" (p. 345).

The most useful implication of Vigil and Oller's model for providing appropriate feedback is that "feedback must be optimal in order to be effective" (Brown, 2007, p. 345). Too much red or yellow light may kill a learner's interests and enthusiasm. On the other hand, too much green light may easily cause fossilization. Teachers should attach enough importance to feedback and conduct a good adjustment of these traffic lights.

Applying the language-culture connection principle. As the language-culture connection principle goes, whenever a teacher teaches a language, he or she also teaches a complex system of cultural customs, values, and ways of thinking, feelings, and behaving. A successful learner of language should definitely learn a lot of the culture of the TL (Brown, 2007). It is of great importance for teachers to conduct discussions on cross-cultural differences, and teach students cultural connotations. The ultimate goal is to help students adapt to TL culture successfully and succeed in TL learning.

Fighting against fossilization is a big task for both teachers and learners. Teachers and students in China should all pay high attention to the fossilization phenomenon, make great efforts to overcome fossilization, and try to prevent it from happening rather than eliminate it after it happens.

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