Abstract

Language attrition has been viewed as the inverse process of language acquisition. In 1980, the conference on the Attrition of Language Skill held at University of Pennsylvania opened the prelude to language attrition research, which then has been developed into a hot topic in the area of language research. Vocabulary acquisition is not a tidy linear affair, with only incremental advancement and no backsliding. All teachers recognize that learners easily forget material as well. This forgetting is a natural phenomenon of learning, which has been described as the bilingual or multi-lingual’s ability of using one specific language regresses with time due to reduction or cease of use. We should view a part of vocabulary knowledge as being in a state of flux, with learning and forgetting occurring until the word is mastered or fixed in one’s memory. The recent decades witnessed the productive researches in this field abroad. However, the research domain in China has received little attention. Therefore, this study discussed the reasons for senior high students’ English vocabulary attrition and gave some useful implications for foreign language vocabulary teaching. The present research employed language attrition theory as its theoretical framework investigated the reasons for vocabulary attrition and give some useful implications for vocabulary teaching. By means of literature review, the studies as well as the theories both abroad and at home in the field of vocabulary attrition have been collected, summarized and analyzed. The findings of the thesis also give us some useful implications for foreign language teaching.

Key words: vocabulary attrition; reasons; implications; foreign language teaching

Chapter One Introduction

1.1 Research Background

In 1980, the conference on the Attrition of Language Skill held at University of Pennsylvania gave a brand new start to language attrition, which then was established as an independent area of language research. Language attrition has been viewed as the inverse process of language acquisition. It has been
described as the phenomenon that the bilingual or multi-lingual’s ability of using one specific language regresses with time due to cease or reduction of use. This attrition is a natural fact of learning.

Studies into attrition have produced mixed results, largely due to the use of different methods of measuring vocabulary retention (e.g. Bahrick, 1984; Hansen and McKinney, 2002; Weltens and Grendel, 1993). Compared with its popularity abroad, attrition research receives little attention in China. The relevant studies are still at the stage of theory-introducing, such as Zhong Shuneng (2003), Cai Hansong (2004) and Ni Chuanbin (2006, 2007, and 2008).

1.2 Research Questions
This paper aims to discuss the reasons of vocabulary attrition and gives some meaningful implications for vocabulary teaching. Therefore, there are four questions to be answered:
1. How widely spread is the vocabulary attrition in senior high schools in China?
2. What are the reasons for vocabulary attrition?
3. How to reduce the negative effects of vocabulary attrition from the perspective of teachers and students?
4. How could teachers and learners maintain English proficiency?

1.3 Significance of the Research
Wilkins once said: “Without grammar, very few things that people can express, without words, people can not express anything.” (1972:111). The role of English vocabulary is evident. Vocabulary acquisition is not a tidy linear affair, with only incremental advancement and no backsliding. Overall, once vocabulary is learned, it does not seem to completely disappear, as Bahrick (1984) found residual vocabulary knowledge in his informants even after 50 years of language disuse. It therefore is probably best to think of attrition in terms of loss of lexical access, rather than in terms of a complete elimination of lexical knowledge. Therefore, how to alleviate English vocabulary attrition and facilitate foreign language learning is essential. Altogether, this study provides assistance for senior high school students to make clear the rules of attrition phenomenon and factors influencing the attrition process, which can help students as well as teachers to facilitate foreign language teaching.

1.4 Organization of the Research
This paper comprises four chapters and following is the organization of the paper:
Chapter one is a brief introduction of the vocabulary attrition. The layout of the whole paper is also included in this part. It introduces the research background, the research questions and research significance.
Chapter two gives a brief summary of some relevant concepts in language attrition at home and abroad. It embodies the review on the definition of language attrition and the factors influencing attrition.
Chapter three introduces some theories in foreign language attrition, which has been theorized from different perspectives, depending on whether the emphasis is given to individual factors, social environment or linguistic factors.
Chapter four summarizes the implications of the present study and suggestions for the future study are also included in this part.
Chapter Two Literature Review

In the late 1970s, language attrition emerged as a new research field, which attracted the attention of many language researchers. Language attrition has become a heated topic nowadays. This chapter reviews the definition, the classification; the theoretical background and some hypothesis in language attrition are being discussed.

2.1 Definitions of Language Attrition

2.1.1 Definitions on Vocabulary Attrition Abroad

The research on language attrition started in foreign countries in the late 1970s. In the history of language attrition study, terms that once have been used are: Aphasia, Atrophy, Change, Death, Decay, Decline, Loss, etc. Until the publication of “First Language Attrition” by Seliger (1991) which was considered as the first official publications in this field, the term “language attrition” has been used extensively. Lambert & Freed (1982) defined the term “attrition” as:

…language attrition may refer to the loss of any language or any portion of a language by an individual or a speech community. It may refer to the declining use of mother tongue skills by those in bilingual situations or among ethnic minorities in (some) language contact situations where one language, for political or social reasons, comes to replace another. Language attrition also refers to the deterioration of language skills in neurologically impaired patients and to the decline of certain types of language usage by the elderly. Likewise, language attrition may be used to describe the death of an entire language. There is yet another sense in which the term language skill attrition is used which has received considerably less attention. That is the loss of language skills by those who have studied and then discontinued the use it as a second language…

2.1.2 Definitions on Vocabulary Attrition at Home

Compared with the studies of vocabulary attrition abroad, the scholars at home begin to do the research on language attrition late and rare. There are many influential language linguists as Zhong Shuneng, Cai Hansong, Zhou Rong, Li Ping and Zheng Shutang, etc. As language attrition study is a fresh perspective to language study, the thesis attempts to give an account of language attrition studies at home and the language attrition classification. The research mainly includes the following classifications:

They define the “attrition” as “loss” or “reduce” that is the loss of one aspect or any aspects of language of individuals or speech community. It is different from pathological language attrition (Zhong Shuneng 2003:66-70). He holds that the loss of language attrition can take place between people in a group and through generations. Thus the phenomenon should be viewed as both interpersonal and intrapersonal. Ni Chuanbin, one of the most prestigious scholars in this field at home, is working with some other scholars to explore the definition and the factors of language attrition. Ni Chuanbin& Yan Junrong(2006) define language attrition as the inverse process of language acquisition. Zhong Shuneng & Sun Jingyuan(2012) combine with the latest achievements and study different definitions aboard. When Ni and Yan analyze seven factors influencing language attrition as follows: English proficiency prior to language attrition, period of non-use, age, affective factors and so on. In 2009, Ni conducted an experiment among 704 college graduates to study how those seven factors impact language attrition, and he found that gender is another
factor and boys suffer more attrition than girls. The result facilitates the development of language attrition.

2.2 Classifications of Language Attrition

Vocabulary acquisition is dynamic, and while we hope to improve vocabulary proficiency, there will inevitably be attrition as well. However, just as vocabulary acquisition is incremental, we might expect that vocabulary attrition would also be complex. Attrition can be divided into two categories by language researchers: short term attrition and long term attrition.

2.2.1 Short-term attrition

Short-term attrition is an important issue for second language acquisition and vocabulary in particular. The key issue is how long a memory trace from an exposure can endure, so that it can be subsequently built upon. If this period is exceeded, then the next exposure will merely be starting over with no incremental gain. (Norbert Schmitt: 2009) There is little research to discuss this question, although the answer should drive most of pedagogy, at least that concerning the earliest learning stages.

For example, syllabuses should be designed so that vocabulary recycling occurs within the “retention period”. Another example is the incidental learning from reading. A learner must read enough so that a new lexical item will be met again before its memory trace disappears. The length of the retention period will dictate the maximum number of pages which can be read before the item needs to occur again. The high level language learners would benefit from this kind of information particularly. Thus, the retention period may vary in systematic ways. A related issue about which little is known is the number of exposures which are necessary to make vocabulary knowledge durable.

2.2.2 Long-term attrition

Long-term attrition and retention is of great interest to vocabulary researchers. Studies with this focus usually test people who learned a language previously in their life, but for whatever reason have not used it for a long time.

For example, Bahrick (1984) studied the loss of second language Spanish and found that some vocabulary knowledge was retained for more than 50 years. Moreover, recognition was less affected by attrition than production. Overall, Bahrick’s data suggests that vocabulary knowledge declines regularly from three to six years after instruction, but then remains steady for several decades, although with an additional decline in middle age. However, it appears that learners who achieved relatively high levels of proficiency are more resistant to the initial attrition, and maintain a steady stage before attrition begins (e.g. Hansen, Umeda, and McKinney, 2002).

2.3 Factors Influencing Vocabulary Attrition

According to Reilly, Tarey (1988): “Language acquisition and maintenance depend on instructional factors, relating to the way it which the language is initially acquired; cultural factors, relating to the status and usefulness of the language in a particular society; and personality factors, relating to individual characteristic of the speaker”. Therefore, exploring these factors could help learners and teachers to seek the effective methods to prevent the loss of language skills.
2.3.1 Internal Factors

2.3.1.1 Learner’s Age

It is a commonsense that age affects the ability of foreign language acquisition to a large extent. Hansen (1980) once concluded in his study that “the results of the current study show that the second language attrition of child language learners is faster than that of adults”. Later, Yoshida (1990) further suggested that the younger group tends to make more mistakes than the elder one. Hence, age is one factor leading to the foreign language attrition differences. There are two findings as follows: one is that the differences of second language attrition between child and adult language learners; the other id the differences of second language attrition between child language learners themselves. The results of the study demonstrate that second language attrition of child language learners is faster than that of adults (Hansen, 1980). The results also suggest that younger children are easier to be reduced than that of the elder children (Olshtain, 1986:187-204).

2.3.1.2 Learner's Motivation

Learning motivation is a kind of dynamic tendency of the students' learning behavior. It includes the learning needs and the learning expectation. Psychologists from different perspectives do research on this field as strengthening theory, attribution theory, the achievement motivation theory and self-value theory. Students' learning is influenced by many factors, which are mainly influenced by learning motivation, but also with the students' learning interest, learning needs, personal values and the students' attitudes. Edwards (1976, 1977) were analyzing the attrition of personnel in Washington government; he found that positive motivation could reduce vocabulary attrition. Altogether, learning motivation is a kind of internal power to promote students' learning directly, and it needs to be encouraged and to guide students to learn.

2.3.1.3 Engagement

Engagement is one of the important factors in vocabulary acquisition. It is a commonsense that the more a learner engages with a new word, the more likely he/she is to learn it. Craik and Lockhart’s (1972) Depth/Levels of Processing Hypothesis states that the more attention given to a word, the more is involved with the word and the greater the chances it will be remembered. Laufer and Hulstijn (2001; Hulstijn; Laufer, 2001) guessed that the total involvement of vocabulary acquisition contains three components: need, search, and evaluation. Need is the requirement for a linguistic feature in order to achieve some desired task. Search is the attempt to find the required information, e.g. looking up the meaning of that word in a dictionary. Evaluation refers to the information of a word or with the context of use.

2.3.1.4 Foreign Language Proficiency Prior to the Attrition

Foreign language proficiency prior to the attrition is one of the most influential factors resulting to the foreign language attrition. In 1932, Kennedy pointed that foreign language proficiency prior to the attrition is the most essential element affecting language attrition. Godsal-l Myers (1981) discovered that learners in higher level are more likely to maintain German proficiency after a time span. Foreign language proficiency has a significant influence on the maintenance of foreign language skills. Those who have higher language proficiency will keep a relatively stable language competence. When the foreign language learners
stop learning, they will not be affected so much. Some prestigious scholars aboard do many researches in this field. Olshtain (1989:151-165) suggested that receptive skills have a significant correlation with language proficiency prior to attrition. Some domestic scholars also do researches in this field. For example, Liu Wei (2010:74-80) indicated that initial proficiency is proved to be negatively related to the attrition of language skills.

2.3.2 External Factors

2.3.2.1 The Length of the Period of Non-use

This concept refers to the length of the attrition process, which is a vital factor determining the degree of foreign language attrition. The length of the period of non-use can be divided into four periods, which are three months, one year to four years, twenty-five years to thirty-five years and fifty years (Ni Chuanbin & Yan Junrong, 2006:50-55).

Let us further discuss these periods. First is the foreign language attrition over a period of three months studied by some researchers (Kennedy, 1932; Cohen, 1975; Geoghegan, 1950), because that is about the length of the summer recess in schools (Bert Weltens, 1987). The other lengths are regarded as the periods of non-use for researches include one year to four years (Graham, 1990; Grendel, 1993), twenty to thirty-five years (Hansen, 1999), and the longest period fifty years (Bahrick, 1984). Altogether, the attrition is fast at the earlier stage, slow at the middle stage, and fast at the last stage.

2.3.2.2 Language Learning Environment

The degree of foreign language attrition is closely related to language environment. That is, if one stops learning and there is no language learning environment, then the foreign language learners will suffer foreign language attrition; If learners acquire foreign language at school, then a period of attrition in foreign language also can lead to attrition. In China, students learn English in classroom; therefore the period of non-use for some certain knowledge is more likely to suffer foreign language attrition. One way to solve the foreign language attrition is that” keeping a frequent contact of target language will effectively avoid the language attrition, and having a positive manual intervention may have beneficial effects on language maintenance” (Lowe, 1982).

Chapter Three Theories in Foreign Language Attrition

For many years, the studies on foreign language attrition abroad have been discussed from many different perspectives, for example the inner factors of the individuals, the social environment, the linguistic factors, and some other factors. Here, what we should seek is the characteristics of foreign language attrition; the inner differences of the individual during the foreign language attrition process.

A lot of essential foreign language attrition hypotheses will be introduced on the following part. It is not an easy thing to learn a foreign language well, let alone keeping what we have learnt in mind. The foreign language attrition refers to one's foreign language forgetting. A great number of researchers pay much attention to the foreign language attrition, and nowadays, there have been many relevant theories illustrated. This chapter is to present a detailed presentation of these theories. The main goal of this study is to do research on foreign vocabulary attrition and how to improve vocabulary proficiency to teachers and students.
3.1 Critical Threshold Hypothesis

The critical threshold hypothesis is developed from the inverse hypothesis. The Bahrick's study tells us the foreign language proficiency after being reduced is related to the degree of foreign language attrition. Bahrick argues that part of students' Spanish skills learned in classroom suffer attrition within the initial several years following formal training, and that the remained part resists to further attrition for at least 25 years whereas much of the knowledge is considered to be conserved for “50 years or longer” (Bahrick, 1984a:111). On the basis of Bahrick’s research, the critical threshold hypothesis was advanced by Neisser (1984). He supposed that Bahrick’s findings could have passed a “critical threshold” during the process of learning and the knowledge that reached this point would be retained. The learners’ primary language proficiency will reach and exceed the level can endure the attrition.

What’s more, if the naives with basic command of foreign languages suffer the first six years of language attrition, they would have the same language level as those who had never trained. By contrast, if language attrition happens to be the proficient bilingual or multi-lingual learners, most of their language ability can be maintained. Later, researchers find those learners' who have different foreign languages levels before attrition can exert on the influences on their language attrition. When the foreign language learners reached the Critical Threshold Value, they will keep most of their language competence; otherwise, it will speed up their language attrition. Obviously, these theories mentioned above have already revealed the rules and features of language attrition.

3.2 The Regression Hypothesis

The regression hypothesis was the earliest one to be put forward among the language acquisition hypothesis, which indicates that language attrition has been viewed as the inverse process of language acquisition and can be described as mirror image. It was widely used to describe the process of language attrition. In early years, the famous linguists do some researches on the non-pathological and language attrition. There is a heated debate between the pathological and the non-pathological of the regression hypothesis.

It was widely acknowledged that the regression hypothesis has no influence on the aphasia. The Regression Hypothesis considers that sequence of language loss is a mirror image of the sequence of acquisition. Subsequently, hypothesis was verified in non-pathological instances of language attrition. However, it fails to delineate a clear picture. Andersen (1982) suggested that “those linguistic features that took the longest for an individual to acquire and master will be the hardest to maintain”.

3.3 The Inverse Hypothesis

Another influential hypothesis of foreign language attrition study is the inverse hypothesis, which indicates the negative correlation between degree of foreign language attrition and foreign language proficiency before attrition. Kennedy (1932) found that the language proficiency prior to the language attrition was one of the most influential factors that influence the foreign language attrition. Later, Godsall-Myers (1981) found the attrition rate of learners in German and their final German proficiency was negatively correlated. Finally, Bahrick (1984) found the knowledge to be forgotten was relatively constant for learners at different levels of initial language proficiency during the first five years after language
training. But the individuals with higher levels of initial language proficiency retained larger amount of their original language competence. Then this phenomenon was summarized by Vechter (1990) as “inverse hypothesis”.

Chapter Four Conclusion and Implications

In this chapter the major findings will be presented. Limitations of the research will be illustrated from theoretical aspects. Suggestions are proposed for further research and improvement. From the theories and analysis, the lexical attrition is proved to be true. The further statistics verifies the relationship between lexical attrition and language proficiency. That is, the learners who have higher lexical proficiency level get less lexical attrition, while, those who have lower lexical proficiency level get more lexical attrition.

Language attrition, as a product with language acquisition, is worthy of research. A wise language learner knows how to learn a foreign language well and maintain it. This paper proposes some ways to minimize its influence.

1. Improve the target language proficiency

Neisser once pointed out that there must be such a thing as a “threshold” that is critical mass of language that, once acquired, makes loss unlikely. If foreign language learners reach their “threshold”, their language knowledge will be lost or reduced a little slowly. Altogether, in order to better to prevent the foreign language attrition, the foreign language learners should try to improve their language proficiency better.

2. Develop autonomous learning

Autonomous learning requires students to have a good control of their potential ability, because the development of autonomous learning is an inner ability to learn and analyze. With the help of explicit learning, students should plan, learn, and assess what is supposed to learn.

3. Make good use of affective factors

(1) The positive motivation should be set up to slow language attrition down. Shewell (1999) found that language users’ positive attitude and strong motivation towards that language can effectively prevent language attrition.

(2) Keep a delicate balance of anxiety.

Excessive anxiety is the reason why foreign language learners freeze up when asked to say something in public, but that doesn’t mean anxiety is unnecessary. If proper, anxiety can facilitate learning activities.

(3) Practice the target language more

Far from the authentic language environment, most of foreign language learners in China cannot make full use of what they’ve learned and gradually the basic input can't turn into the output, which probably fades out eventually. So it is advisable to contact the language as much as possible by attending the activities for communicating, reading newspaper, and watching video clips in that language.
References