

# Literature Review on Language Attrition Causes: Word Frequency, and Identity and Belongings

Lan Y. Mao

**Abstract**—Language attrition is the phenomenon of degradation and forgetting of the learning outcomes of language learners. This paper focuses on analyzing the factors influencing the emergence of language attrition in language users and language learners by summarizing previous empirical and qualitative studies. It finds that the influencing factors are divided into two main categories, including intralinguistic and extralinguistic factors. The former refers mainly to word frequency and the latter mostly indicates people's quest for identity and a sense of belonging. And in order to fully analyze the effects of these factors on linguistic attrition, the author respectively discusses the mother tongue attrition and the second language in the first language environment and also in the second environment. Therefore, language change is the result of a combination of multifaceted factors. So this finding can expand the study of language and put forward suggestions on language teaching reform.

**Index Terms**—Language attrition, word frequency, identity and belonging, language teaching

## I. INTRODUCTION

Research on language attrition is helpful for promoting investigation on language acquisition, whether about mother tongue or about second or foreign language. Language attrition can seemingly be viewed as a mirror image [1] of language acquisition and it refers to bilingual or multilingual speakers' regression of their language competence because of a decrease or cessation of the use of a language [2]. Domestic and foreign scholars explored this topic much and produced rich fruits, most of which talked about the linguistic and extra-linguistic influencing factors on attrition. And at the very beginning, lots of attention was put on the attrition on first language and it was gradually shifted on second language attrition. And according to the language and the language environment in which attrition occurs, Van Els [3] divided it into four categories, including L<sub>1</sub> attrition in L<sub>1</sub> environment, L<sub>1</sub> attrition in L<sub>2</sub> environment, L<sub>2</sub> attrition in L<sub>1</sub> environment and L<sub>2</sub> attrition in L<sub>2</sub> environment. Therefore, next part concluded studies on the four attrition varieties under the umbrella of the two kinds of governing factors, vocabulary variable and psychological variable.

## II. VOCABULARY VARIABLE: WORD FREQUENCY

Since language competence is reflected on the linguistic level, linguistic elements have a big impact on language decline. And general linguistics involves phonetics, morphology, syntax and semantics. And many scholars took

those into consideration and investigation, and found out that vocabulary, as the basis for every level, gains the greatest change and regression. Namely, lexical variables play a crucial and critical role in language attrition itself.

### A. Mother Tongue Attrition in L<sub>1</sub> Environment

First language is likely to encounter attrition due to second language learning in motherland [4]. English majors in our country who contact the foreign language much more tend to adopt code mixing or code switching in some specific context. Thus, on paper their first language competence is unavoidably affected. Although there are few studies on L<sub>1</sub> attrition in L<sub>1</sub> environment, Liu and Lin did the attrition empirical research on Chinese advanced English learners from four perspectives, including lexical diversity, lexical sophistication, lexical density and lexical errors.

This research regarded wrongly written characters, erasures, additions, deletions, etc. as errors in vocabulary use, and repeat errors were counted only once. Lexical sophistication was reflected by the coverage of high frequency words and low frequency. So the amount of low-frequency words mastered reflects the L<sub>2</sub> level of learners to a certain extent, especially the level of vocabulary [5]. According to the results of statistics, compared with the control group, there was no significant difference in the first three aspects, but there was a significant difference in lexical errors [6]. Even for these subjects, what first came to their mind were English words or they replace Chinese characters with their English counterparts. So once they had any hesitation or repair, they may produce errors. Therefore, looking from these parameters, which word is recalled frequently and easily by attriters or word frequency is indeed an important independent variable in the language attrition. At the same time, language attrition is slight and invisible because first language as official language often comes into the so-called attriters' view. Presumably, L<sub>1</sub> attrition in L<sub>1</sub> environment in reality is less likely to be monitored or recognized because English majors get used to adopting English in order to show their exact feeling or language competence. And instead, it points out that English majors can flexibly switch one language into another, not being unable to call attention to mother tongue.

### B. Second Language Attrition in L<sub>1</sub> Environment

English, as a foreign language in our country, cannot escape attrition destiny in China. And online literature resources mainly put emphasis on second language attrition. From the collected articles, it can be summarized that scholars empirically studied English attrition reasons, especially vocabulary attrition causes through linguistic characteristics analysis in practice, Jakobson's regression, the inverse hypothesis, the threshold hypothesis, the interference

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The authors are with Foreign Language College, Sichuan Normal University, Chengdu, China. E-mail: OliviaMaoLL@163.com

hypothesis in theory, etc.

Among attrited elements, vocabulary is the most sensitive one. Most papers make English majors and non-English majors subjects, and this paper discusses the influence of linguistic features of vocabulary on the attrition of English vocabulary. Whether for English majors or not, research results about vocabulary always work.

Both two varieties of research found out that word frequency, word length, word level and word meaning have significant effects on lexical attrition [7–10]. Frequently used words mean that English learners often use such words so that they get more nerve stimulation. And in terms of the threshold hypothesis put forward by Neisser [11], the higher the frequency of language use, the lower the activation threshold. Therefore, English learners are easier to forget low frequency words while high frequency words leave more impressive traces. Also similarly, long words are more easily attrited than short words [12] because they need higher activation and stimulation. And word level is designed and arranged according to the word frequency and word length. High-level vocabulary is endowed with greater demand, including using the lower frequency words, so they are more vulnerable to attrition. In addition, words of high frequency appear many times in our daily life. For instance, if a man wants to describe an event or an activity, he or she may turn to verbs for help since verbs vividly and intuitively depict that thing, which is the same as the rule that an English sentence is not correct grammatically without a verb. That's why [13] and Ross [14] suggested that nouns in a second language easily get attrited. Thus, in essence, word frequency is the core index in the intra-linguistic factors, which, rightly, can prove the regression theory of first in, last out [15, 16] in reverse. What children acquire early is about daily use words and these words are usually recognized as high frequency words. And generally speaking, morphologically high frequency words are always the short words. And furthermore, shorter words in spelling are usually polysemous words or homonyms. Logically, Li [17] supposed that words of multiple meanings have the best resistance to attrition.

After so much discussion, it can be seen that the theoretical explanation and linguistic feature reason analysis radiate from the vocabulary, the cornerstone of language learning is the word, the factor affecting the language loss is the word, and the key point is the word frequency variable in vocabularies.

### III. PSYCHOLOGICAL VARIABLE: IDENTITY AND BELONGINGS

The speed and degree of language attrition are affected by individual and social factors, and are closely related to the changing social environment [18]. So besides factors directly related to language or vocabularies itself, there are other extra-linguistic variables, including time, age, gender, identity, attitude, etc. Like the above vocabulary variable, the psychological variable also has its own kernel factor and other corresponding factors are its derivative.

#### A. *First Language Attrition in L2 Environment*

Bilinguals tend to emigrate so that they have less chance to use or consolidate their mother tongue in order to

successfully live abroad. As a result, first language attrition easily happens to them. And also it involves social adaptation, vanity, group affiliation and other social and psychological activities. In this aspect, foreign papers pay more attention to study target language and source language and also their relationship or influence from the viewpoint of speech community in society and in psychology.

When bilinguals come into another country and settle down, they are bound to be cut off from their mother tongue. These people practice their second language more and more so that their second language is more and more fluent. Even with the time going, their mother tongue become weaker and weaker. In general, the loss of language skills in a first language generally occurs during the first 10 years after migration. But at the very beginning, these migrants may maintain fluency in oral communication in their first language in order to maintain their first language for the first few years after their arrival in the country of destination [19, 20]. So here, it can be explained that they keep feelings of home and country or they want to guard their own language. But as time flies, it seems that they come to get familiar with life and culture in a foreign country. So they hope to integrate into the target language community. Therefore, individuals may refuse to use the first language and try to acquire a second language close to the target language in order to prove their bilingualism in the non-first language environment and increase their identity, which is supported by the identification behavior theory [21]. In the bilingual environment, many people will use different languages in order to get the recognition of the target language group. Therefore, the first language of individual immigrants will be gradually lost in the process of accelerating their integration into the target language community [22]. Time is an external factor that plays a decisive role while identity and belongings are individual's heart tendency or we can say their motivation and attitude at the bottom. The internal driving forces make them choose to speak what kind of language in the society so that they have more powerful belief to keep away from their first language and then their mother tongue suffers from attrition.

Meanwhile, as the first language of the minority people, our minority languages are also suffering from attrition under the background of Chinese, as the second language. On the basis of absorbing foreign research results, some domestic scholars have progressed relevant empirical and theoretical research according to the pattern of ethnic minority language pluralism.

Minority bilinguals often lose their bilingual environment and become Chinese monolinguals under the influence of external environment. In addition, members of ethnic minorities blindly produce the "muhan" mentality, which refers to appreciating Han culture and pursuing Han's customs. And then they have a negative attitude towards their mother tongue and think the national language is inferior to Chinese, so they deliberately avoid learning and using it. In a sense, the extinction of a minority language is a manifestation of the serious loss of the native language of its speakers [23]. In depth, like emigrants, they also seek for the identity and belongings and their lack of respect. Because of their feelings and emotions, they contact Chinese much more to some degree that they themselves cannot understand their national

language, let alone speaking it naturally. All these originate from their psychological appreciation and face needs. So regardless of external factors such as time, age or gender differences, it is on earth the bilinguals' own psychology that fundamentally forces them to automatically remove their native language from their minds and then try to make the second language their own language.

#### *B. Second Language Attrition in L2 Environment*

In principle, people who live in second language environment have more chance to practice their foreign language. However, their second language may still face such attrition problem. For instance, some Chinese, especially elder people move abroad for living or anything else and they are accustomed to using Chinese in Chinatown, even creating the pidgin language. So their English actually doesn't get improved and instead gradually fades away. The reason for this is that in this circle, they speak Chinese, not English, as if they were in homeland where these overseas Chinese shape a united family. In addition, for some women who do not want to go out to work or do not want to contact with beyond their own culture/ethnic community, they are more likely than men to maintain a higher level of first language proficiency [24]. Indirectly, their second language becomes inferior and their mother tongue still stays dominantly. If a man was not in a second language environment, language attrition automatically could occur as second language exposure decreases and stops.

#### IV. SUMMARY

There are many factors affecting the attrition of mother tongue and second language in different environments. So far, many scholars home and abroad have delved into this topic in experiment and in theory. Their findings can be generalized into two types, including language system itself which contains attrition orders and levels, and exterior governing components that progress attrition. Linguistically, these factors involve vocabulary, syntax and pronunciation in order. And psychologically and socially, they include time, age, gender, motivation and attitude. Therefore, this paper connects these research results in the clue of that four attrition classification for an in-depth analysis and finds out word frequency plays a dominant role in internal factors, as well as identity and belongings are the driving force to determine in which period the attrition occurs.

After such analysis and filtering, it is found that language attrition taking place in first language environment is suitable for internal explanation while language attrition in L2 environment is better for external factors explanation. And the development and change of anything or phenomenon is the result of the combined action of internal and external causes [25]. So in the later research, scholars can take these two varieties causes into experiment and then present actual language attrition. Out of these affecting components, it is also practically concluded that in English teaching, teachers should pay more attention to low frequency words input and practice so that it is helpful to decrease their corresponding activation threshold. And first language is easier to be immune to attrition because native speakers have reached the key figure. So second language teaching and learning should

catch crucial period and strengthen learners L2 competence. Also, emigrants abroad can never forget their native language even if they speak another language in daily life since mother tongue show their own uniqueness and civilization. It is true to ethnic minorities. They need to maintain and protect the vitality and vitality of their mother tongue, minority languages. Therefore, it is necessary to guard our Chinese characters and minority dialects by carrying language attrition research.

#### CONFLICT OF INTEREST

The author declares no conflict of interest.

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