

Attrition of Nouns and Verbs among Iranian EFL Learners after a Two-Year Non-Exposure

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Abstract

In comparison with language acquisition, language attrition has remained largely unnoticed and has so far received very little attention and among the small number of studies, the subject of most of the attrition research is attrition of the first language. Language attrition has perhaps not been able to attract much interest because losing a language does not seem as interesting as acquiring it (Schmid, 2002; 2004). This paper investigated the rate of attrition in nouns and verbs among 60 Iranian EFL learners who were students and graduates from Payame Noor Universities of Golestan province and had not used English for at least 2 years at the time of study. The instrument was a translation task; students were asked to translate nouns and verbs out of context. Paired samples t-test was run to investigate to what degree the language knowledge of subjects under investigation showed attrition. Results showed there was a difference between attrition of nouns and verbs among Iranian EFL learners; verbs were more vulnerable to attrition than nouns. The results provide implications for vocabulary teaching in the EFL context.

Key words: Attrition, Nouns, Verbs, years of non-exposure

Introduction

Language attrition is the process of a gradual, non-pathological decline of proficiency in a (first or second) language (Schmid & de Bot, 2003, p. 210). The study of first language attrition began in the early 1980 with Richard D. Lambert's interest in language loss (Jamshidiha & Marefat, 2006). The non-pathological loss of L1 can naturally be seen as an outcome of acquiring another language (Seliger, 1996). Kopke (2004) from a neurolinguistics point of view defined attrition as decline of language in aphasia, dementia, and normal aging.

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Kopke and Schmid (2004) referred to attrition as the non-pathological loss of a language in bilinguals; generally, changes in the linguistic environment and termination of an instructional program may lead to attrition. So after a period of non-use, languages that we know might undergo attrition. Many of the subjects in previous studies were students who have gone to another country and acquired their L2 naturally and then they have come back to their L1 environment. The L2 attrition patterns of these students have been observed in many studies. Gurel (2004), Hulsen (2000), Kopke et al. (2007), Opitz (2004), Schmid (2002) investigated distinction between L1 attrition or the attrition of a native language and L2/foreign language attrition, the attrition of language acquired later in life. Mehotcheva (2010) investigated the attrition of Spanish among Dutch and German university students. Also, Xu (2010) studied the attrition and retention of school learned English in Chinese and Dutch university students.

Schmid (2004) mentioned the study of L1 attrition is entering its third decade. Many studies concern L1 attrition in an L2 environment. Such as Shao Hui (2012) concerned L1 loss in an L2 environment. Participants of the study consisted of 7 native Chinese speakers. All participants in this study settled in the United States of America (USA) or Canada at an adult age and had been living in the U.S. or Canada for at least 6 years at the time of testing. Syntactic attrition of L1 Chinese reflexives was investigated; First language attrition refers to the changes which a first language (L1) undergoes when a second language (L2) is acquired in a context in which L1 use is reduced. Result showed that language attrition did not occur among adult target group. De Leeuw et al. (2011) studied First language attrition of prosody; L1 attrition in the prosody of the bilingual was concluded. Negrisanu (2008) examined aspects of first language attrition in a second language environment that were German and English respectively. Gurel (2004) also focused L1 attrition that occurs in L2 environments. Jamshidiha and Marefat (2006) investigated first language attrition in the second language environment; they studied the influence of second language (English) on the first language (Persian) of speakers. Gurel (2004) presented the evidence for L2 influence on first language; it was found that L2 English caused L1 attrition in relation to the interpretation of overt and null pronouns in L1 Turkish. Priven (2002) studied on a shifting pattern in the use of second person singular pronouns of address in Russian immigrants in Toronto; this pattern is dealt with as a case of L1 attrition. The aim of Ventureyra and colleagues' (2004) study was investigation of first language attrition of adopted Korean, in this study a population of Korean adoptees living in French-speaking families who had not had contact with Korean since childhood took part. A phoneme discrimination task similar to that used in Oh et al. (2003) was used; the adoptees were not able to perform significantly better than French native speakers who had not been exposed to Korean. Psycholinguistic research has shown that monolingual native speakers may even become indistinguishable from L2 learners when put under pressure. It has been demonstrated that even monolingual native speakers may behave like beginners when the cognitive load of a task is increased through time pressure and higher structural complexity: Hopp (2010) required both natives and non-natives; the aim of the study was to make grammaticality judgments of sentences displayed on a computer screen one word at a time; she successively shortened the base interval of 250 ms, and found that at the fastest rate of presentation the natives became indistinguishable from the L2ers. In this study first language attrition happened in L1 environment.

Lexical attrition

Researchers have investigated the rate and amount of attrition in different areas or sub skills of a language and have come up with various results. Some have come up with significant loss of a language and some others have come up with slight loss. Seliger (1991) stated that attrition is selective and does not concern all aspects of language in the same way. It has generally been assumed that often lexicon shows the higher degree of attrition, there were some studies that indicated this area seems to be the first to be affected in the process of attrition. In other words, this linguistic level is more vulnerable to attrition than the grammatical system. L2 attrition may occur in different aspects of language like grammar or vocabulary, from this point of view some researchers investigated the components of language, such as vocabulary or grammar and claimed that they are more vulnerable to attrition. In contrast to the study of lexical attrition, research on language attrition on the grammatical level was confined to the analysis of errors (Schmid, 2004). Laleko (2007) investigated the attrition phenomena that are responsible for the fact that AR (American Russian) is defined as a reduced variety of SR (standard Russian). Findings showed a reduction of vocabulary and changes in the aspectual system and gender agreement in AR. Al-Hazemi (2000) suggested that vocabulary is more vulnerable to attrition than grammar in advanced L2 learners who had acquired the language in a natural setting and similar to this result in some studies when speakers who lived in L2 environment were asked if they had so far experienced attrition, most speakers immediately reported they had some problems of lexical access, and this is also often suggested in attrition research as the aspect of linguistic knowledge that is most vulnerable to attrition (Hulsen, 2000; Kopke & Nespoulous, 2001; Kopke & Schmid, 2004; Montrul, 2008; Opitz, 2004).

Another way to gain evidence for the vulnerability of vocabulary was comparisons between words and grammar, however many researches claimed the latter is less vulnerable to attrition than the former (Kuhberg, 1992; Tomiyama, 1999; 2008). There was a question like whether or not the decline in grammatical knowledge is necessarily accompanied by a decline in lexical proficiency some researchers such as Polinsky (2005) who investigated this area, indicated there was a positive correlation between the maintenance of vocabulary and maintenance of grammar. Recently the issue of sensitive and resistant aspects of grammar has been discussed by Sorace (2000). The results of Gurel's (2004) investigation suggested that native speakers of Turkish, after living in an L2 country for a prolonged period of time under extensive L2 input, tend to lose some aspects of the native grammar. Tsimpli et al. (2004) presented some results from an experimental study that investigated the effect of syntactic attrition on the L1 of Greek and Italian speakers who have achieved near-native proficiency in their L2 (English) but still use their L1 on a regular basis. They reported on the results of one of the production tasks and two interpretation tasks. Attrition effects are found in the production of preverbal subjects in the Greek group whereas Italian speakers show attrition effects in the interpretation of overt pronominal subjects. Also, Tsimpli et al. (2004) found no evidence of attrition in relation to the syntactic properties of the subject of a clause but found evidence of attrition in relation to the distribution and interpretation of the subject. According to some studies on

syntactic attrition, it has been reported that semantics is more vulnerable whereas syntactic options tend to be more stable.

Al-Arishi (1994) measured English language article and preposition attrition; participants were twenty Saudi Arabian teachers of English, English language was their foreign language. The results manifested less article attrition than preposition attrition. Au et al. (2002) compared the pronunciation of adult participants who had been regularly exposed to Spanish in childhood before the age of six was more Spanish like with the second group who were first-time L2 Spanish learners when both groups were evaluated in Spanish classes at university. Oh et al. (2003) demonstrated that adults learning Korean who were either childhood Korean over hearers or childhood Korean speakers performed better than novice adult Korean L2 learners and as well as native Korean speakers in a phoneme perception task involving Korean minimal triplets (plain, tense, and aspirated) of stop consonants. In a phoneme production task, on the other hand, only the childhood Korean speakers performed like native speakers: their performance was significantly better than that of both the childhood Korean over hearers and the learners of Korean as a foreign language. These studies seem to demonstrate the existence of phonological remnants in the attriters's mind despite discontinued use. There was not any truly evidence related to dramatic lexical loss, problems of lexical access and substantially reduced speed of lexical retrieval (Yılmaz & Schmid, 2012). De Bot and Weltens (1991; Weltens, 1989) suggested that some speech acts such as greeting, congratulation and closed set words, are not affected by attrition. Schmid et al. (2013) noted it is difficult to find evidence for lexical attrition despite presence of claims for its existence, but they considered the ability to identify lexical attrition or degrees of lexical attrition may be useful in predicting attrition in other parts of the grammar. Montrul (2002) made difference between acquired later or earlier lexical items and their rate of attrition and hypothesized that lexical items that are acquired late by L2 learners would be the same items likely to be inaccessible first in L1 attrition accordingly the incomplete systems of L1 of bilingual attriters may resemble those of L2 learners at advanced stages. Addressing differential patterns of decline is the hypothesis that the more automatic certain language skills are, the less likely they are to be affected by the process of attrition (de Bot & Weltens, 1991). Applied to lexical retrieval, this hypothesis can produce testable predictions about lexical items and language tasks that are likely to be more or less automatic (Goral, 2004).

In identifying vulnerable language components, one of the areas Andersen (1982) listed was the lexicon. Because lexical use depends on experience, the degree to which attriters are in contact with speakers of the language in question and with specific lexical items of that language will be relevant to the process of loss. Andersen hypothesized that attriters use and come in contact with only part of the vocabulary that is mostly high-frequency words and mostly words that are related to areas of their current experience. However, attrition is predicted to be selective, as Gurel (2004) claimed only the L2 properties that were learned earlier will undergo attrition.

Attrition of nouns and verbs

Word class is another possible variable in language attrition. Ellis and Beaton (1993) noted that nouns are the easiest to learn whereas verbs and adverbs are the most difficult to learn in FL vocabulary list learning experiments, and also claimed that children learn nouns before other parts of speech. According to de Groot and Keijzer's (2000) hypothesis that words that are easier to learn are better remembered, nouns, which seem to be easier to learn than verbs, would be better remembered than verbs. The last learned, first forgotten hypothesis also would suggest that verbs are more likely to be lost than nouns, in both L1 and L2 attrition. With regard to L1, children tend to acquire nouns before verbs, although the extent of this varies from language to language. In L2, at least with a school learned L2, more nouns than verbs tend to be taught in early classes, as beginning classes often cover subjects that are heavily dependent on nouns. Since verbs tend to be learned later than nouns, they may be lost earlier. Ross (2002) investigated whether nouns or verbs are more likely to be lost in the attrition of school learned French, hypothesizing that verbs will be more likely to be lost. Ghasemi Bagherabadi (2005) examined difference of attrition of nouns and verbs. A group of 25 Iranian high school students after a summer interval took part in this study. In comparison to verbs, nouns were least vulnerable to attrition. Because vocabulary that students learned at the beginning of the academic year turned out to be more resistant to attrition than vocabulary that students learned near the end of the academic year hence attrition in verbs took place faster than in nouns; furthermore, the results of his study revealed that the summer interval had a negative effect on student's knowledge of vocabulary. De Groot and Keijzer (2000) hypothesized that nouns are remembered better than verbs because they are easier to learn. So, according to regression hypothesis, verbs are more vulnerable to attrition than nouns because they are learned later. Polinsky (2005) studied lexical attrition and investigated the difference between attrition of nouns, verbs and adjective among Heritage Russian speakers. He gained evidence that in all three categories there was a correlation between frequency and the retention of items: the higher the frequency the more the speakers retain the items, and vice versa. It is important to mention that the inability of some EFL learners to recognize some words was due to the fact that certain words might have been forgotten. Many words were also hard to recognize even when clues were given. These studies revealed that language attrition is selective. It affects only some aspects of the syntactic system. Attrition does not progress linearly over longer time periods, and it is not associated in any straightforward way with the frequency of L1 exposure or use across a variety of contexts (Schmid & Mehotcheva, 2012).

Methods and Materials

Participants

The study was carried out in Golestan province. Preliminary participants of the study were 100 female and male Iranian students at Payame Noor University in Golestan province, out of this number, only the ones whose general English scores were between 14 and 16 were chosen, the age range of participants was between 20 and 44 and

they were 38 females and 22 males. Since the design of the study is cross-sectional, two groups of students were chosen: those who had recently passed their general English course and had not finished their university studies were considered as the continuing group and those who had finished their university studies constituted the non-continuing group. One reason why the researchers chose the students of Payame Noor University is that they had studied the same book. The participants' majors were Educational, Management and Chemistry. They were not chosen from English language major because they had the least contact with English language after graduating from university.

Instruments

The instrument included one questionnaire and a translation task from English into Persian. The questionnaire contained some questions about the years of non-exposure to English, their scores in general English exam, age and gender. A 40-item vocabulary translation task in isolation, i.e. out of context, was also utilized.

Procedure

Language loss has so far received very little scholarly attention. Therefore, the present study aimed at investigating FL attrition in L1 environment, specifically which part of speech (noun or verb) is more vulnerable to attrition. In a few decades, among researches on this topic, many studies have focused on which aspects of the foreign language are lost (e.g., syntax vs. lexical knowledge first; elements of lexicon). The present study also concentrates on this dimension; the researchers investigated the rate of attrition of verbs and nouns. To explore how foreign language skills change over time, it is desirable to examine the skills of the same set of individuals repeatedly during the period of reduced input.

The questionnaire was given to 100 students and graduates of Payame noor University, it contained four items; years of non-exposure, General English score, age and gender. 60 EFL learners whose scores were between 14 and 16 and had not used the English language for at least two years were chosen as the participants in the main phase of the study. They were then divided into two groups of 30 students. One group was called the continuing group and the other one was called the non-continuing group.

As mentioned earlier, in addition to the bio-data questionnaire, the data were also collected through a translation task from English into Persian. The task consisted of 40 items of nouns and verbs presented in isolation or out of context. The words were extracted from the General English book of Payame Noor University which all of them had studied at the university. Two nouns and two verbs from each unit were chosen at random. The length of the word was considered; twelve nouns were one-syllable and eight nouns were two-syllable words. Fourteen verbs were one-syllable and 6 verbs were two-syllable ones.

Design of the study

The study implied the ex post facto design; the researcher identified events that had already occurred and then there was not direct manipulation of the independent variable, also the study had a cross-sectional rather than a

longitudinal design. Therefore, the scores of the participants in the continuing group were considered as the pretest and the scores in the non-continuing group were considered as the post-test scores. This study aimed to find out the answer to the questions through numerical evidence; we did not try to explain why language attrition happened.

Data analysis

In order to investigate the research hypothesis, various statistical analyses including both descriptive and inferential statistics were used for different purposes. Descriptive statistics such as means and standard deviations were used in order to check the underlying assumptions of the statistical procedures applied in the study. For the purpose of testing the hypothesis, inferential statistical procedures were applied. To test the hypothesis of the study Paired Samples T-Test was used using SPSS 16.

Results

Testing the hypothesis

The null hypothesis stated that there is no difference between the attrition of nouns and verbs after years of non-exposure among Iranian EFL learners. To determine whether there is a significant difference between the average values of the same measurement under two different conditions among the same participants, a Paired Samples T-Test was used. In this part the researcher aimed to compare the means of scores of nouns and verbs among continuing learners. The following table presents the data for this aim.

Table 1. Paired Samples Statistics for nouns and verbs among continuing learners.

		Mean	Std. Error Mean	Std. Deviation	N
Pair 1	verb.con	27.6000	1.19923	6.56847	30
	noun.con	29.3333	.64028	3.50697	30

Table 1 indicates the score of knowledge of nouns and verbs among continuing learners. According to this table the mean of the score of nouns was 29.33 and the mean of verbs was 27.6. As shown in table 2 below, p-value was .056; this shows that there was not a significant difference between knowledge of nouns and verbs in the continuing group i.e. the pretest.

Table 2. Paired Samples T-Test for nouns and verbs among continuing learners.

		Paired Differences							
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	verb.con-n noun.con	1.73333	4.77734	.87222	-3.51722	.05056	-1.987	29	.056

Similar to the pre-test, Paired Samples T-Test was also run for non-continuing learners. Table 3 shows data such as the mean of nouns and verbs among non-continuing learners.

Table 3. Paired Samples Statistics for nouns and verbs among non-continuing learners

		Mean	Std. Error	Std. Deviation	N
Pair 1	verb.non	20.7667	1.02574	5.61822	30
	noun.non	27.9667	.90906	4.97915	30

In table 3, the means of knowledge of nouns and verbs among non-continuing learners were indicated; the mean of scores of verbs was 20.76 and the mean of scores of nouns was 27.96.

In table 4, the significance level was less than 0.05; it means there was difference between the knowledge of nouns and verbs among non-continuing learners.

Table 4. Paired Samples T-Test for nouns and verbs among non-continuing learners

		Paired Differences							
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	verb.non-noun.non	-7.20000	6.40259	1.16895	-9.59076	-4.80924	-6.159	29	.000

The results in table 4 indicated that significance was 0.00 that was less than 0.05, hence, it can be said that the first null hypothesis was rejected; it was shown that there was a difference between the knowledge of nouns

and verbs among the non-continuing participants, as these scores were the numbers of items of nouns and verbs which were correctly answered. The mean of verbs was 20.76 and the mean of nouns was 27.96, accordingly, the mean of the knowledge of nouns was more than that of verbs, in other words, the mean of attrition of nouns was less than that of verbs.

Discussion and conclusion

The null hypothesis of this study posed that there was no significant difference between the attrition of nouns and verbs. The results of this study showed that learners' knowledge of nouns was more than their knowledge of verbs; in other words, they attrite verbs more than nouns. It was found that there was a significant difference between the attrition of nouns and verbs. There are possible explanations for these results. Marefat (2006) and Kopke and Schmid (2004) mentioned that what was learned best will be most resistant to loss. According to regression hypothesis, components might be lost in reverse order to the one in which they are acquired. It means that nouns are usually presented before verbs; verbs are acquired later than nouns but lost earlier. Previous studies concluded that nouns were better remembered than verbs. De Groot and Keijzer (2000), for instance, claimed that nouns are easier to learn and they are better remembered than verbs. As Ross (2002) stated, turning concepts into mental images affects better memorization and recollection of nouns. De Groot's and Keijzer's results, however, are in conflict with findings of Ross (2002) research that verbs are better remembered than nouns. This observation was in line what Craik and Lockhart (1972) stated that superficially learned words, such as verbs, are more vulnerable to attrition than deeply learned words, such as nouns. Probably, the contradictions of results deal with particular language peculiarities.

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Appendix: The translation task:

Translate the following words

کلمات زیر را ترجمه کنید

Root.....,type....., base.....,letter.....,
text.....,gist....., paper.....,topic.....,
task.....,title....., fact.....,rest.....,
skill.....,area....., case.....,tutor.....,
clue.....,sign....., image.....,link..... .
Carry....., stand....., join....., guess.....,
place....., add....., want....., read.....,
gain....., hear....., select....., know.....,
note....., learn....., help....., cover.....,
mean....., make....., react..... , give..... .