

The Interference of First Language and Second Language Acquisition

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Abstract—One of the most important and fascinating aspects of human development is language acquisition. The present review summarizes some difficulties that second language learners may face to learn English. It has tried to find out factors that play an important role in the acquisition of second language. It is a popular belief that first language has an effect on the second language acquisition, and it is claimed that L1 can interfere with the acquisition of L2. It is also believed that the role of L1 in the L2 depends on some similarities and differences between the two languages. The present review brings to the fore the similarities and differences between the first language and second language acquisition. It then concludes with some implications for teachers and researchers.

Index Terms—second language acquisition, interference, first language

I. INTRODUCTION

The language which is acquired during early childhood starting before the age of about 3 years is first language (Sinha, Banerjee, Sinha, & Shastri, 2009). First language has different names such as, mother tongue, native language and primary language (Sinha et al., 2009). A second language acquisition is needed for education, employment and other purposes, and it is typically an official or societal language (e.g. English).

A growing body of research was done on the first language transfer in second language acquisition. Almost all of the previous researchers believe that first language has interference in second language acquisition. For example, Karim and Nassaji (2013) investigated the first language transfer in L2 writing, and they found that when second language learners write in L2, their L1 has an effect on their writing. Fatemi, Sobhani and Abolhassan (2012) investigated the differences in consonant clusters orally in the first and second language, and pointed out if the structures of first and second language were different, learners have difficulty in L2 pronunciation because they faced to unfamiliar phonological rules, but Lord (2008) did the converse study; he investigated the different effects that L2 acquisition has on L1. He pointed out that learners who become a member of bilingual communities lose their L1.

There are two assumptions of contrastive analysis hypothesis: first the degree of difference between the two languages shows the degree of difficulty. Second, the degree of similarity shows the degree of simplicity. Therefore, if the two languages have more differences, it will be more difficult for learners and if the two languages have more similarities, it will be simpler for the learners (Hayati, 1998). Nation's (2001) research shows first language has small but important role to play to communicate meaning and content. The influence of first language on second language indicated low acquisition, and it can be reduced by natural intake and language use or it can be eliminated (Taylor, as cited in Krashen, 1981, p.67).

II. LITERATURE REVIEW

A. *The Acquisition of L2*

The only way a learner can start to communicate in a second language is the time a learner begins to assume word-for-word translation equivalence or it is thought that every L1 word has one translation in L2 by the learners (Blum-Kulka & Levenston, as cited in Bhela, 1999, p. 30).

When learners of second language want to write or speak in the target language, they tend to rely on their first language structures. If the structures are different, then a lot of errors occur in L1 thus this indicates an interference of first language on second language (Decherts & Dillis, as cited in Bhela, 1999, p. 22). Interference is the errors that can be traced back to the first language, while the learners use the second language (Lott, as cited in Bhela, 1999, p.22).

A learner has difficulties in second language such as phonology, vocabulary and grammar due to the interference of habits from L1 and L2 (Beardmore, 1982). Those errors that occur in learning of second language cause interference which are categorized as follows: 1. Developmental errors: the errors that are not related to learner's first language. 2.

Ambiguous errors: the errors that involve interference and developmental errors.³ Unique errors: those errors which cannot be categorized neither in interference nor developmental errors. Interference is the result of old habits of the first language, and it must be unlearned before the learning of the new habits of second language (Dually, Burt, & Krashen, 1982).

Learners of second language tend to transfer the forms, meaning and culture of their L1 to the foreign language and culture when attempting to speak the language. By learning L2 habits, L1 habits are also transferred and then the errors occur (Beebe & Seliger, as cited in Nemati & Taghizadeh, 2006). Similarly Beardsmore (1982) suggests that if the learners have difficulty in phonology, vocabulary and grammar of L2, there are due to the interference of habits from L1.

Towell and Hawkins (as cited in Nemati & Taghizadeh, 2013, p.2479) point out that very few L2 learners become successful in achieving native speakers level, the majority of L2 learners cannot achieve native speakers level of ability.

Further, Dulay et al. (1982) showed that the path of second language acquisition is different from the acquisition of first language, but the errors of L1 and L2 learners are very similar. Selinker (1983) points out that there are two types of transfer in learning a second language: positive and negative transfer. In positive transfer, L1 facilitates the acquisition of second language, but in negative transfer the first language has negative impacts on L2 and interferes in L1.

As Odlin (1989) points out when negative transfer occurs, we can study learners with different native language and compare them to find out the effect of L1 in learning a second language. First language can be considered as a tool for language acquisition to solve learning and communication problems. Faerch and Kasper (1987) argued that transfer is a mental and communicative process through which L2 learners develop their inter language skills by activating and using their previous linguistic knowledge. Lord (2008) mentions that “while many researchers analyze the effect of second language acquisition on the first language, very few studies examine the converse situation.

The Merge Hypothesis of Fleg (1987, 2005) points out that “the merging of phonetic properties of phones that are similar in the L1 and L2 can potentially impact not only the acquired language but the native one as well”. For example, an English speaker with higher proficiency in Spanish can have problem both in English and Spanish. He pronounces Spanish with English characteristics, and he pronounces English words less English-like than a monolingual English speaker would. Learners who acquire an L2 cannot pronounce the words native-like both in L1 and L2. Thus there are 3 options for the learners: 1- They can preserve their L1, but they cannot achieve native-like L2 pronunciation. 2- They lose their L1 and achieve native-like L2 pronunciation. 3- They lose native-like pronunciation both in L1 and L2.

“One might think that with increasing skill, learners become more capable of functioning autonomously in the L2” (e.g. Segalowitz & Hulstijn, as cited in Sunderman & Kroll, 2006, p.388).

However, recent evidence that demonstrates parallel activation of words in both languages during visual and spoken word recognition suggests that acquiring proficiency in a L2 does not imply that the individual has acquired the ability to switch off the influence of the L1. (e.g. van Hell & Dijkstra; van Wijnendaele & Brysbaert, as cited in Sunderman & Kroll, 2006, p.388)

B. *L2 Acquisition of Child vs. Adult*

Researchers have found the relationship between the age and some aspects of the second language (Tohidian & Tohidian, 2009). As Larsen-Freeman and Long (1991) find out, the age is an important factor in building a second language. Moreover, McLaughlin (as cited in Nemati & Taghizadeh, 2013, p.2477) suggests the optimal way to learn a second language is to learn two languages simultaneously at birth.

There are two parts that Lennenberg (1967) suggested for second language acquisition: firstly, normal language learning which occurs in childhood. Secondly, reaching the age of puberty. In this stage, brain loses its elasticity and reorganizational capacities which are necessary for language acquisition. At an early stage, in childhood, human can learn languages, if it is not done, it will reduce by the stage of puberty. In childhood the left hemisphere is more involved in language and speech than right hemisphere. After that in stage of puberty, the two hemispheres become quite specialized for function because the children have inability in transferring and recalling the vocabulary of the first language. This is the advantage for them in learning a language without interference from their first language.

Acquisition of second language before the age of about L2 has higher chance because lateralization is not completed yet. The performer's first language of adult's second language performance is the only major source for many years. (Lado, as cited in Krashen, 1981). Moreover, Lennenberg (1967) proposed that learners must acquire second language which acquire within childhood. Secondly reaching the age by puberty, that in this part brain loses its plasticity and reorganizational capacities necessary for language acquisition. Because the children have more flexible brain than adults, thus the children are superior to adults in learning a second language. They can learn language easily because the cortex of children is more plastic than older learners (Lennenberg, 1967; Penfield & Roberts, 1959).

When child efforts to express himself, his or her parents become happy and accept his bits of words. They understand what he says, they never correct a child's pronunciation or grammar, but the teacher in class does care what the students say, they always correct their sentences and that is why the class is not a real place compared with the conversation between mother and child (Nemati & Taghizadeh, 2013).

“The critical period for grammar may be later than for pronunciation (around 15 years).some adult learners , however may succeed in acquiring native levels of grammatical accuracy in speech and writing and evenfull linguistic competence” (Tohidian & Tohidian, 2009, p.12).

“For instance,the morpheme studies showed that the order of acquisition of a group of English morphemes was the same for children and adults”(Bailey, Madden, & Krashen, 1974). Adult L2 acquisition is very similar to child L1 acquisition as some researchers such as Dulay, Burt and Krashen (1982) argued, and in this process L1 background of learners does not have any effect on L2. Adult language acquisition typically falls far short of native like competence. Various explanations have been proposed for this limited attainment, such as critical periods for language acquisition, socio cultural differences, motivational differences, and restricted input. It shows that “adults have difficulty in the associative learning of form-meaning relations in linguistic constructions”. (Ellis & Sagarra, 2010, p. 554)

C. *L1 Transfer in L2 Writing*

When the learners feel gaps in their L2 syntactical structures for writing in L2,they use syntactical structures of their first language (Bhela,1999).Where there are similarities between the structures of L1 and L2 because of lack of understanding of the learners in L1 an error occurs inL2 (Bhela,1999).

In L2 writing, transfer can be considered both as a learning device and as a strategy to solve communication problems (Karim & Nassaji, 2013).Language learners may use the L1 strategies in their L2 writing because of similarities in L1 and L2. If the learner’s knowledge of the target language is not enough, the learner relies on her or his L1 to express his or her idea and this reliance can be positive and negative (Karim & Nassaji, 2013). Ringborn (1987) points out the learners use L1 as a tool both for composing and for sampling the composing and for simplifying the complexity of the L2 writing task.

The examination of Lameta-Tufuga (as cited in Nation, 2001, p.3) shows that if learners have discussion in their first language before writing task in the second language, they can perform better in writing task in English because they have opportunity to fully understand the content of the task. Knight (as cited in Nation, 2001, p.3) also came to the similar findings. If the learners have a preparatory L1 discussion in groups, they can do much better in the L2 written task than the learners had a preparatory L2 discussion in group. Therefore, if learners want to gain a higher level of L2 performance, L1 plays a useful role in helping the learners. The L1 is a useful tool like other tools which should be used in learning L2 but should not be overused (Nation, 2001).

D. *Similarities of L1 and L2 Writing Strategies*

Many researchers studied the writing strategies of L1andL2 and found there are similarities between the two (Karim & Nassaji, 2013). When the writers with lower proficiency write in second language may not be able to easily transfer L1-based strategies, and they use their L1 source some matters, such as generating idea, monitoring and lexical-searching purposes. The L2 readers have access to their L1 and often use their L1 as a reading strategy (Carson & Carrel, as cited in Namati &Taghizade, 2013, p.2481).

Silva (1993) carried out an empirical study to scrutinize L1 and L2 writing. The participants of this study had a variety of conditions. At least 27 dissimilar L1s were represented. The participants were university students in the U.S. who had highly developed levels of English proficiency and showed an extensive range of levels of writing capability. Silva mentions that his study demonstrated that writers who were asked to do in L1 and L2 dedicated more concentration to producing fabric in L2 than in L1, and discovered content production in L2 more complex and less flourishing. A great deal of the materials produced in L2 were not used in the students' written text (Silva, 1993). Besides, Silva discovered that writers did less arrangement, at the comprehensive and restricted levels. Comprehensive level denotes that the writer is coping with the subject from a diversity of viewpoints. Limited level signifies that the writer is dealing with her syntactic and lexical alternatives in the background of her own written text. Based on Silva (1993), L2 writers did less aim-setting and had more trouble arranging produced material (the same writers did not have this trouble in L1). Generally, adult L2 writing was less effectual than L1 writing. Regarding lower level concern, L2 writing was stylistically diverse and less complex in formation. Although there are many differences in L1and L2 reading, Jiang (as cited in Nemati &Taghizade, 2013, p.2481) marked that if the learner has good educational background in L1 that their reading skills and strategies have developed, they apply these skills and strategies when they are reading in L2.

Matsumoto's (1995) investigation in Japan demonstrated that experienced EFL writers employ strategies like those employed by skillful native English speakers. An interview with four Japanese university instructors on their processes and strategies for writing a research article in English as a foreign language (EFL) was conducted. The participants of this study were researchers who held degrees in the humanities from universities in the U.S. and had published articles in both English and Japanese. All the participants began learning EFL at the age of 13. Results of the study discovered that the participants used the equal process and used the identical strategies across L1 and L2 writing.

An attractive discovery in this study demonstrates that all of the participants stated that they do not include L1-to-L2 translation into their research article writing processes, i.e., they do not write in Japanese initially and after that translate the text into English. Furthermore, participants' observation on writing in L1/L2 and writing ordinarily were alike. Matsumoto (1995) proposes that, there must be present something basically ordinary to any operation of writing, apart

from of the language, specifically, something non-linguistic, but cognitive-strategic that assisted writers to meet the objective of creating effectual and consistent writing.

As Bhela (1999) states that the learners rely on their native language when they want to produce a response in the target languages. A high frequency of errors occurs in L2 when the structures of two languages are different, so it indicates an interference of L1 on L2 (Dechert & Ellis, as cited in Nemati&Taghizade, 2013, p.2482).

III. EMPIRICAL STUDIES

Bhela (1999) studied the learner's writing as they either have young school-aged children who request some help with schoolwork from time to time. There were 4 participants in the study. Two sets of sequential pictures were given to them and were asked them to write a story beginning with the first picture and ending with the last picture. They must write individually without any group interaction initially and after an individual attempt, they can interact to each other if they wish. They must write in second language and then write the same story a second time in the native language. After that they were asked to write a story with second sets of picture both in English and native languages. This provided a broader base for the analysis of the errors made and provides a suitable sample of written performance. After the writing tasks, they explained why they use a specific structure in L1 and L2 in an individual interview. Four learners have errors in both their L1 and L2 text, found out by the analysis of the results. When an error made in L2, it shows a lack of understanding of L2 and the learners used the L1 form in L2 and making errors in L2. The learners used their structures to help them for their L2 texts, and it indicates a direct interference of L1 and L2. With the existence of similarities in L1 and L2, the learners use the L2 easily, without that, some difficulties may appear.

In Fatemi, Sobhani and Abolhassani's (2012) study, 30 female and male were chosen randomly from 3 classes at Qeshm and Mashhad Language Institutes whose age ranged between 18-30 years old. All of them were Persian native speakers and they were tested individually in a quiet room at first. In this study there were six sentences. Each sentence included at least two clusters and the total number of these clusters was fourteen. The students had to read the sentences. The researcher used MP4 to record learner's oral production and just the words recorded and described by the researcher to be analyzed then. "The order in all phonetic transcripts is as their phonemic transcripts in the sentences as follows: <prove>, <stole>, <strength>, <class>". The researcher concluded that the cause of Persian language learners' problem in pronunciation is the difference between the syllabic structure of Persian and English. When the Persian language learners learning English as a second language, faced with some syllables which are not present in their first language structure, thus they rely on their first language rules to solve this difficulties in this study. It was found that because of little or no similarities between the syllable structures of Persian and English language, the learners try to use their phonological knowledge of syllabic structure that already internalized which it cause an error in learning.

Alternatively, Lord (2008) conducted a study on second language acquisition and first language phonological modification. The participants of the study were 15 students, they are divided into experimental and control group. English monolinguals and Spanish monolinguals are in the control group and native English speakers with high proficiency in Spanish are in the experimental group. At first participants filled out a language background questionnaire and also asks for information regarding their language experience and use. After that recording of the tasks and reading out a list of isolated words are continued by them. The monolingual control groups performed tasks in their native language. But experimental group do it in both Spanish and English. The result at this study show that the effects of L2 interference in L1 are dependent on the amount of attention that the participants paying on their speech.

Jabbari and Samavarchi (2011) investigated syllabification of English consonant clusters by Persian learners. Children who were at the elementary state of SLA were chosen as the subjects of the study. They were engaged in an oral production task in which the terms told by the writer twice and children were asked to replicate the words independently. This assignment was recorded to observe if there was a resemblance between the first and the second replication. The results discovered that the learners syllabified syllable-initial clusters again when they employed epenthesis rather than removal, consequently one syllable was syllabified again into two (two-consonant clusters), three or four syllables. This was a negative transfer from Persian learners of English coming across trouble in pronunciation of primary consonant clusters because there are not primary consonant clusters in Persian. They add a vowel before the cluster or between that to pronounce it easier (Keshavarz, 2001). Consequently, primary consonant clusters are not permissible by Persian language (Yarmohammadi, 2002). At times, Persian speakers exclude one of the consonants of a closing cluster which is made of three consonants. It is another means to make hard consonant clusters simpler (Keshavarz, 2001).

IV. CONCLUSION AND IMPLICATIONS

This review was done to reveal the role of second language acquisition and the role of first language on it. It was found that first language has interference in second language. A lot of factors that cause interference were considered such as the similarities and differences in the structures of two languages, background knowledge of the learner, proficiency of learners on second languages, and the structures of consonant clusters in L1 and L2. If there are similarities in L1 and L2 the learners have less problems in acquisition of L2 and fewer errors may occur in L2, but if there are no or little similarities of the structure of first language and second language, learner is faced with a lot of

problems in L2 acquisition and it is not easy for them to learn. The previous studies showed that first language can have a negative or positive transfer on second languages. Where the structures of two languages are different, negative transfer occurs, and where the structures of two languages are similar, the positive transfer occurs and L1 facilitates the L2 acquisition, but as Lord (2008) pointed out, it was found that the acquisition of L2 can have an effect on L1. He stated when learners learn L2 cannot speak their L1 as a native. L1 information is active by reading or listening in L2 by bilinguals (e.g. Dijkstra & van Heuven, as cited in Sunderman & Kroll, 2006).

Mayberry (2007) stated the determining factor in the success of acquisition of L1 and L2 is the age of L1 acquisition.

It is of importance that the effects of age of L1 acquisition on both L1 and L2 outcome are apparent across levels of linguistic structure, namely, syntax, phonology, and the lexicon. The results demonstrated that L1 acquisition bestows not only facility with the linguistic structure of the L1 but also the ability to learn linguistic in the L2. (Mayberry, 2007, p.537)

“Oral CF research has been largely grounded in SLA theories and hypotheses, whereas written CF research has drawn on L1 and L2 writing composition theories” (Sheen, 2010, p.171).

It was found that many studies were done to find out the interference of L1 in L2, but a very few bodies of research was done to unearth the interference of L2 in L1. It is therefore suggested that more studies should be conducted to investigate to what extent the L2 influences L1 or how L2 acquisition can have an effect on the first language.

REFERENCES

- [1] Bailey, N., Madden, C., & Krashen, S. (1974). Is there a natural sequence in adult second language learning? *Language Learning*, 21, 235-43.
- [2] Bhela, B. (1999). Native language interference in learning a second language: Exploratory case studies of native language interference with target language usage. *International Education Journal*, 1(1), 22-31.
- [3] Beardmore, H. B. (1982). *Bilingualism*. Tietor: Avon.
- [4] Dulay, H., Burt, M., & Krashen, S. (1982). *Language two*: New York: Oxford University press.
- [5] Ellis, N., & Sagarra, N. (2010). The bounds of adult language acquisition. *Studies in Second Language Acquisition*, 32, 553-580.
- [6] Faerch, C., & Kasper, G. (1987). Perspective on language transfer. *Applied Linguistics*, 8, 111-136.
- [7] Fatemi, M.A., Sobhani, A., & Abolhasani, H. (2012). Difficulties of Persian learners of English in pronouncing some English consonant clusters. *World Journal English Language*, 2(4), 69-75.
- [8] Fleg, J. E. (1987). The production of ‘new’ and ‘similar’ phones in a foreign language: evidence for the effect of equivalence classification. *Journal of Phonetic*, 14, 47-65.
- [9] Fleg, J. E. (2005). What is the cause of age effects on Second language (L2) learning? Plenary talk presented at the Hispanic Linguistics Symposium (Workshop on Linguistic Convergence), November 10-13, 2005. Pennsylvania State University.
- [10] Hayati, M. (1998). A contrastive analysis of English and Persian stress. *Papers and Studies in Contrastive Linguistic*, 34, 53-72.
- [11] Jabbari, A. A., & Samavarchi, L. (2011). Persian learners’ syllabification of English consonant clusters. *International Journal of English Linguistics*, 1, 236-246.
- [12] Karim, K., & Nassaji, H. (2013). First language transfer in second language writing: An examination of current research. *Iranian Journals of Language Teaching Research*, 1(1), 117-134.
- [13] Keshavarz, M. H. (2001). *A practical course of English phonetics and phonology*. Tehran: Scientific and Cultural Publications Company.
- [14] Krashen, S. D. (1981). *Second language acquisition and second language learning*. University of Southern California: Pergamon press Inc.
- [15] Larsen-Freeman, D., & Long, M. H. (1991). *An introduction to second language acquisition research*. London: Longman.
- [16] Lennenberg, E. (1967). *Biological foundations of language*. New York: Wiley
- [17] Lord, G. (2008). Second language acquisition and first language phonological modification. *Proceedings of the 10th Hispanic linguistics symposium*. ed. Joyece Bruhn de garavito and E. Valenzuela, 184-193. Somerville, MA: Cascadia proceedings project.
- [18] Mayberry, R. (2007). When timing is everything: First language acquisition effects on second-language learning. *Applied Psycholinguistics*, 28, 537-549.
- [19] Matsumoto, K. (1995). Research paper writing strategies of professional Japanese EFL writers. *TESL Canada Journal*, 13(1), 17-27.
- [20] Nation, P. (2001). The role of the first language in foreign language learning. *Asian EFL Journals*, 32(3), 177-175.
- [21] Nemati, M., & Taghizade, M. (2006). Exploring similarities and differences between L1 and L2. *IRJABS*, 4(9), 2477-2483.
- [22] Odline, T. (1989). *Language transfer: Cross-linguistic influence in language learning*. Cambridge: Cambridge University Press.
- [23] Penfield, W., & Roberts, L. (1959). *Speech and brain mechanism*. New York: Atheneum Press.
- [24] Ringbom, H. (1987). The role of the first language in foreign language learning. Clevedon: Multilingual Matters.
- [25] Selinker, L. (1983). Language transfer. In S. Gass & L. Selinker (Eds.), *Language transfer in language learning* (pp.33-68). Rowley, MA: Newbury House.
- [26] Sheen, Y. (2010). The role of oral and written corrective feedback in SLA. *Studies in Second Language Acquisition*, 32, 169-179.
- [27] Silva, T. (1993). Toward and understanding of the distinct nature of L2 writing. *TESOL Quarterly*, 27(4), 657-677.
- [28] Sinha, A., Banejee, N., Sinha, A., & Shastri, R. (2009). Interference of first language in the acquisition of second language. *Journal of Psychology And Counseling*, 1(7), 117-122.
- [29] Sunderman, G., & Kroll, J. (2006). First language activation during second language: Lexical processing. *SSLA*, 28, 387-422.

- [30] Tohidian, I., &Tohidian, E. (2009). Effects of age on second language acquisition. *California Linguistic Notes*, XXXIV (2), 1-16.
- [31] Yarmohammadi, L. (2002). A contrastive analysis of Persian and English: grammar, vocabulary and phonology. Tehran: Payame Noor University.

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