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Third Language Acquisition of English Adjective Placement by Turkmen- Persian Male & Female Bilinguals

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ABSTRACT

With the spread of second language acquisition research, third language acquisition has gradually become a new research field. This study aimed at investigating the role of background language transfer in the acquisition of English adjective placement which is similar in Turkmen (i.e., L1) and English (i.e., L3) and different in Persian (i.e., L2). Moreover, the effect of gender on the acquisition of English adjective placement by monolingual Persian and bilingual Turkmen Iranian EFL learners was investigated. Oxford Placement Test (OPT) was given to homogenize and select participants who were in the initial state of L2 and L3 acquisition. The selected participants in the main phase of the study were assigned into two groups namely, Persian learners of English, as well as Turkmen learners of English. The present study was carried out using Grammaticality Judgment Test (GJT) and the Production Test. Two-way Between-groups ANOVA was used to analyze data. The results disconfirmed the findings of the hypothese related to L3 acquisition namely Cumulative Enhancement Model (CEM), and the L2 Status Factor, and confirmed the findings of the L1 transfer. Moreover, the results showed that gender did not have a significant effect on acquisition of English adjective placement by monolingual and bilingual learners. The results have some implications for teaching English in the EFL context.

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1. Introduction

Nowadays, multilingualism is becoming the growing concern among language researchers as well as the majority of the common people who see themselves in the pool of international communication and who are in urgent need of learning languages beyond their mother tongue in order to be active members of the society, they are living in. Despite this fact, research in bilingualism has received more attention than that of multilingualism, and only in recent years, linguists and scholars have focused on the latter. Studies on multilingualism have proved that learning a second language (L2) is totally different from that of a third one (L3), and this is due to the fact that L3 learners master two languages before embarking on learning a new one, while L2 learners have access to only their mother tongue.

Although Iran might be known as a monolingual country throughout the world, with Persian as its national language, we can still find a large number of people living in Iran who are adept bilinguals, such as Turkmens, Turks, Kurds, Arabs, etc. This study focuses on Turkmens most of whom live in the north-east of Iran, in a desert area called 'Turkmen Sahra'. The number of Turkmens living in Iran is above two million. Turkmen children start talking in their mother tongue from the very beginning of their life until they reach the school age, and afterwards they start Persian in school as their second language. It should be born in mind that this group of people has no academic instruction in Turkmen language and they just acquire it orally and partly via the media. Since English language is taught as a foreign language in Iranian contexts, specifically at schools (Rassouli & Osam, 2019), all the school children have this chance to learn a new language, and Turkmen children are of no exception to this fact. However, there seems to be a kind of difference between Turkmens and native Persian speakers in that the former group has access to two distinct languages (i.e., Turkmen and Persian) in the initial states of learning the third one (i.e., English), while the latter can only get benefit of their mother tongue (i.e., Persian) (Mirvahedi, Rajabi & Aghaei 2021). In this study, the main focus is the influence of the previously learnt languages on the acquisition of the upcoming language. More specifically, adjective position, as a syntactic feature being learnt by Turkmen and Persian learners of English as a foreign language, will be investigated throughout this research.

In the Turkmen language, adjectives behave very much like those in English. Generally, an adjective function as an attribute which is placed before the noun it qualifies (Clark, 1998). Unlike Turkmen and English, in Persian the adjective follows the noun it modifies. Examples (1) to (3) below represent this characteristic across three languages under study, i.e., Turkmen, Persian, and English respectively.

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1) Ol bir qawi mugallem. (Turkmen)
S/he a good teacher
S/he is a good teacher.

2) Ou moalleme xubi æst. (Persian)
S/he teacher good is
S/he is a good teacher.

3) S/he is a good teacher. (English)

In light of what has been mentioned above, the present study focuses on cross-linguistic influence of the previously learned languages on the acquisition of a new one (i.e., L3) following the most recent models of L3 acquisition namely, 'L1 Transfer' (Håkansson, Pienemann & Sayheli, 2002; Hermas, 2010; Jin, 2009; Na Ranong & Leung, 2009), 'L2 Status Factor' (Bardel & Falk, 2007; Rothman & Cabrelli Amaro, 2010), and the 'Cumulative Enhancement Model' (Flynn, Vinnitskaya, & Foley, 2004). In addition, contrary to L1 acquisition research, there is sparse literature on the effect of gender on L2 (Slik, Hout, & Schepens, 2015) and L3 acquisition; therefore, the study also attempts to investigate the effect of gender on L2 and L3 acquisition of adjective placement. Following research questions were investigated in this paper:

1. Are Turkmen learners better than Persian learners of English in acquiring English adjective order?
2. Does the learners' gender affect the acquisition of English adjective order?

Accordingly, the following null hypotheses were formulated:

- Turkmen bilingual learners of English (L3) do not act differently from Persian monolingual learners of English (L2) in the acquisition of English adjective placement.
- Learners' gender does not have any significant effect on the acquisition of English adjective placement by Persian monolingual and Turkmen bilingual learners of English.

2. Literature Review

Background: L3 Acquisition

Language transfer or Cross-Linguistic Influence (CLI) has been investigated from the very beginning days of SLA. At first, it was used as a phenomenon to explore the nature of transfer from L1 into L2, hence, the emergence of concepts such as interlingual and intralingual notions in the field of applied linguistics. Later on, by the growth of the concern for multilingualism, this notion became prominent among researchers to investigate the nature of acquisition beyond that of L2 (see, for example, Cenoz, Hufeisen, & Jessner, 2001; Leung, 2006; Rothman & Cabrelli Amaro, 2010). Furthermore, Rothman and Cabrelli Amaro (2010, p. 190) argued that:

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> "*it has been acknowledged that the existence of two already-acquired language systems at the onset of L3 acquisition makes this process unique and worthy of study in its own right, resulting in a sharp increase in interest in the exploration of the nature of L3 systems from formal linguistic perspectives*

Following in line of inquiry, Williams and Hammarberg (1998) have shown that L3 proficiency has an effect on CLI, so research in this field should be conducted with great caution, that is, it would be better to examine the role of transfer in the initial states of language acquisition when the learners' minds are fresh and due to this lack of proficiency, they might transfer the knowledge from the previously learned languages.

Bearing in mind the generative theories of L3 acquisition, Fallah, Jabbari and Fazilatfar (2016) studied the role of Mazadndarani as the first language and Persian as the second on the acquisition of attributive adjectives among three bilingual groups of Mazani L1/Persian L2 with Mazani as the dominant language, Mazani L1/Persian L2 with Persian as the dominant language, and Persian L1/Mazani L2. In Mazani and English, attributive adjectives are head-first while in Persian they are head-last. Their findings revealed that none of the theories of third language acquisition assessed, however, accounted for the CLI in the L3 of the participants. However, language of communication was introduced as the source of transfer in this respect by the researchers. It can also be assumed that monolingual learners transfer from their native language when acquiring a foreign language. Yet, bilingual or multilingual learners possess two or more potential languages to transfer, both positively and negatively, when acquiring an additional foreign language (Siemund, 2019).

Factors Affecting Transfer in L3 Acquisition

Although, there have been considerable amount of research in the field of Second Language Acquisition (SLA) so far, recently, the applied linguists have focused on learning an additional language beyond L2. Previously, the common belief among researchers was the transfer of L1 into L2 (Håkansson, Pienemann & Sayheli, 2002; Hermas, 2010; Jin, 2009; Na Ranong & Leung, 2009), but with the growing concern of the L3 acquisition, they have attempted to find reasonable sources of transfer into languages beyond L2 (see, for example, Cenoz, Hufeisen, & Jessner, 2001; Leung, 2006; Rothman & Cabrelli Amaro, 2010). Some of the factors influencing transfer in L3 acquisition are dealt with in the following section.

Typological Similarity

Typology typically means similarity at some structural level. However, it is not clear how exactly typology is defined and operationalized for manipulation in experimental research (Montrul, Dias & Santos, 2010). Moreover, Williams and Hammarberg (1998) believe that the contrastive analysis of

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two languages is gradually waning in the field of language acquisition, and they regard typological distance as one of the crucial factors in language transfer.

According to Rothman and Cabrelli Amaro (2007, p. 4), *"(psycho) typology is what actually motivates the selective transfer between the systems at the disposal of a multilingual acquirer*". They also believe that typology is in line with the CEM, that is, both L1 and L2 are available for transfer into L3, but in their case, typological proximity is at play, meaning that, unlike the CEM in which it is believed that correct structures are only transferred into L3 either from L1 or L2, here, both correct and erroneous structures might be transferred due to typological similarities between the languages (Rothman & Cabrelli Amaro, 2007). Contrary to all the facts mentioned above, Bardel and Falk (2007) maintained that there might be a slight effect of typology in L3 acquisition. That is, it is not strong enough to outperform the role of L2 in acquiring the third language.

Proficiency in Target/ Source Languages

According to De Angelis (2007), in CLI literature, the proficiency level is divided into two subsections namely, proficiency in the target language and proficiency in the source language. With respect to proficiency level in the target language, De Angelis (2007, p. 33) maintains that "*CLI is more likely to occur at the early stages of acquisition, when learners' knowledge of the target language is still weak and fragmentary and the need to fill knowledge gaps in the target language is more pressing*". However, there are contradictory views on the proficiency level of the source languages. Some believe that high proficiency in the previously learned language will cause the elements of that language to be transferred into the new one (see, for example, Leung, 2006; Williams & Hammarberg, 1998), while others hold the reverse view, that is, low level of proficiency in the background language can affect the L3 acquisition (see, for example, Chin, 2009; De Angelis, 2005).

Recency of Use

Another important factor affecting L3 is recency of use, for which Williams and Hammarberg (1998) argue that the recency of the language's use may have a crucial effect on acquiring L3. Also, Hammerberg (2001) claims that "*L2 is activated more easily if the learner has used it more recently and thus maintained easy access to it*" (p. 23). Nevertheless, it should also be born in mind, according to Murphy (2003), that if L3 is being taught in the L2 of the learners, this might affect the transfer of the linguistic knowledge from L2 into L3 rather than from L1, which, in this case, proves forced recency of use. This fact is contrary to what Muysken (2008) believed in 'individual language use'. According to him, "*the recency effect has to do with how long ago a particular item or a structure was used by a speaker; the more recently used, the better retained. It is clearly something more directly relevant to individual language use*". (p. 145).

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Recency of Acquisition (L2 Status)

Being initially proposed by Williams and Hammarberg (1998), and later on by Bardel and Falk (2007), the concept of L2 status is very close in meaning to Foreign Language Effect, which means that the L3 learner prefers to use the previous foreign language rather than his or her mother tongue. In other words, the L3 learner does not see his or her mother tongue foreign enough to be transferred into L3. As Jessner (2008) states, the foreign language effect occurs when an L3 learner chooses (whether consciously or unconsciously) to activate the first foreign language instead of the first language (i.e., the mother tongue). In Hammerberg's point of view, L2 status factor is a "*desire to suppress L1 as being 'non-foreign' and to rely rather on an orientation towards a prior L2 as a strategy to approach the L3*" (Hammerberg, 2001; pp. 36–37). De Angelis (2007) rejects the notion of recency of acquisition mentioned by Shanon (1991) about the existence of a last language or recency effect, according to which learners rely upon the language that was learned last. She claims that the recency of acquisition does not find much confirmation in the literature. There are a lot of studies which show instances of transfer from unused languages that were not learned last (see, for example, De Angelis & Selinker, 2001). According to the above-mentioned fact, recency of acquisition might not be a crucial factor affecting the transfer in L3 acquisition.

Adjective Positions in English, Turkmen & Persian Languages

Radford (2004, p. 37) distinguishes between 'attributive' and 'predicative' adjectives and argues that:

> "*Adjectives used to modify a following noun (like real in 'There is a real crisis') are traditionally said to be attributive in function, whereas those which do not modify a following noun (like real in the crisis is real) are said to be predicative in function*". Following this distinction, the current study deals with the acquisition of attributive adjectives. In English, the adjectives are prenominal, that is, they precede the noun they modify, for instance,

1) Nice house

In the above example, as it is clear, the adjective 'nice' has preceded the noun 'house'.

Similarly, in Turkmen language, the adjective precedes the noun it modifies, which is also emphasized by Clark (1998), and is indicated through the following example,

2) Āwadan Öý
Nice house
Nice house

According to Clark (1998), Turkmen adjectives are divided into three different types; simple, derived, and combined adjectives. Simple adjectives are those one- or two-syllable adjectives which designate colors, densities, tastes, physical characteristics, location in space, character, etc. Derived adjectives are created with derivational suffixes to denote the presence or absence of a quality,

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relationship of a quality, and the result or the quality of an action. Finally, combined adjectives are formed through combination of words.

Contrary to English and Turkmen languages, Persian has a different system of adjectives, that is, in Persian, structure adjective follows the noun it modifies. Foroodi-Nejad and Paradis (2009) compare English adjectives with Persian adjectives, and declare that English favors right-headedness, which means that the rightmost element in a construction takes the core meaning of the whole element. They believe that Persian lies between left-headedness and right-headedness, as it is represented in the following examples,

3) xiār šur
Cucumber salty
pickles

4) gerd bād
Round wind
tornado

Example (3) represents left-headedness in Persian, while example (4) illustrates right-headedness. Despite this variety in Persian, Foroodi-Nejad and Paradis (2009) consider left-headedness as the default position in Persian language. Example 5 shows the adjective position in Persian,

5) xāne-ye ghršɑng
house-$_{ezafe}$ nice
nice house

Although adjective position, as a branch of nominals, is one of the fundamental issues in language learning, it has not received its due attention in Iranian EFL context specially L3 Turkmen. Therefore, the present study aimed at investigating the role of background language transfer in L3 acquisition by Turkmen EFL learners in Iran. Also due to the important role of gender in language acquisition, this study dealt with the role of gender in acquiring English adjective cases as well as the interaction effect between gender and the languages of the participants under study.

3. Method

Participants

This study was done in two different cities of Iran namely, Gonbad-e-Qabus and Yazd. Oxford placement test (OPT) was given to 102 second grade high school students. Based on OPT results, 78 students who scored between 8 and 20 were selected as elementary learners, since the study focuses on the initial stages of L3 acquisition. Out of this number, 30 Turkmen speakers and 30 Persian speakers (15 males and 15 females in each group) were selected to be the participants in the main

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phase of the study. Due to the possibility of Turkmen language effect on Persian speakers, Persian participants were selected from sophomore students of high schools in Yazd (a city with few Turkmen residents), and Turkmen speakers were selected from the same level high school students from Gonbad-e-Qabus (a city densely populated with Turkmen residents). Since the aim of the present study was to investigate the L3 acquisition in the initial states, and due to the availability of the structure under study in the second grade, students of that grade were selected.

All the Turkmen participants were fluent speakers of Persian language, since they had learned it in childhood and it is the medium of instruction at schools, and due to this fact, there was no need to identify the proficiency level of them in Persian language. But there was a difference between males and females in using Persian language; Turkmen girls tend to speak Persian with their friends or at home more than boys, so the gender of the participants was also considered as influential and both genders were studied.

It should also be mentioned that the groups investigated in this study best represent the bilingual Turkmen learners in Gonbad-e-Qabus and monolingual Persian learners in Yazd since the schools which participants attended were the common schools in those cities which had students from all over the cities.

Instruments

To answer the research questions three tests were used: the Oxford Placement test, the Grammaticality Judgment Test, and the production Test which will be explained below:

Oxford Placement Test (OPT)

The OPT was administered to select elementary level students who were all in the initial state of L2 and L3 acquisition and thus homogeneous in terms of language proficiency. It consists of 60 items which the students had to answer in 30 minutes.

Grammaticality Judgment (GJ) Tasks

According to Tremblay (2005, p. 129), "*grammaticality judgment (GJ) tasks are one of the most widespread data-collection methods that linguists use to test their theoretical claims*". The role of GJT, according to Tremblay (2005), is to distinguish learners' subconscious knowledge of the linguistic rules from their actual use of the language (i.e., performance). In the present study, a grammaticality judgment test (see appendix1) was developed and administered to assess L2 and L3 learners' competence of English adjectives. It included 10 items of adjective placement consisting of 5 grammatical and 5 ungrammatical items. In addition, 10 distractors were included in order to

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impede students' awareness of the structure under investigation, i.e., adjective position. They consisted of 5 grammatical and 5 ungrammatical sentences with structures irrelevant to the grammatical structure under investigation. As for the validity of the test, it was first given to three PhD holders of applied linguistics to judge the content of the test and grammaticality and ungrammaticality of test items based on their intuition. With regard to the reliability of the test, Cronbach alpha reliability was estimated as 0.82. Table 1 shows the distribution of the test items in the GJT:

Table 1: *Distribution of Test Items in the GJT*

Items	Number of Items	Items' Number
Correct English Adjective Placement	5	2,3,10,13,18
Incorrect English Adjective Placement	5	4,7,11,15,16
Distractors with correct structure	5	5,8,12,14,20
Distractors with incorrect structure	5	1,6,9,17,19
Total	20	

Some of the items used in the GJT are shown below:

1. She has pants blue. -2 -1 0 +1 +2
   'She has blue pants'
   (Incorrect English Adjective Placement: L2 Persian Influence)

2. He is a kind teacher. -2 -1 0 +1 +2
   'He is a kind teacher'
   (Correct English Adjective Placement: L1 Turkmen Influence)

Translation Test

A translation test was also given to students to check the production of the learners. Tremblay (2005) believes that grammatical competence is an abstraction and cannot be accessed directly, and should be inferred from the learners' performance. As such, in order to compensate for the possible deficiencies of the GJT and also to tap the learners' performance, a Translation Test (see appendix 2) was developed and administered beside GJT. The test was in the written form and included ten items in learners' first language. Five items were related to the structure under investigation and five items were distractors with had structures irrelevant to adjective position. The distractors were included in order to impede students' awareness of structure under investigation. The participants were asked to translate the sentences into fluent English. To check the L2 Persian structure use in L3 learners' performance, the Persian equivalent forms of the Turkmen sentences were also provided in the test. To ascertain validity of the test, it was first given to three PhD holders of applied linguistics to judge the content of the test. As to the reliability of the test, Cronbach alpha reliability estimate was 0.78. Table 2 below displays the distribution of test items in the translation test.

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Table 2*: Distribution of Test Items in the Translation Test*

Items	Number of Items	Items' Number
Adjective Placement	5	2,3,5,6,9
Distractors	5	1,4,7,8,10

An example of the Production Test which is in the form of translation from Turkmen to Enlgish language is presented here:

1) Oyim-ing bir olaqan otaghi bar.
House-poss. (my) one big room have-PRES-3sg
'My house has a large room'
(Adjective Placement in Turkmen Language)

Procedure

The study used ex post facto design because the variables under investigation could not be manipulated as they had already happened. Thus, Descriptive Method using grammaticality judgment test and a translation test was used to answer research questions.

The three tests mentioned above (i.e., OPT, GJT, TT) were piloted on 10 students of the same level but in different schools before they were administered to the larger groups of participants. The aim was to check the time required to administer the tests, quality of instructions and the test items. Using the results of the pilot test, some amendments were made to the time allotted to the tests. Instructions became clearer by revision of the structures. Finally, some test items in the GJT and TT with high and low item facility were discarded.

Since this study aimed at investigating L2 and L3 acquisition in the initial states, the content of the high school books was reviewed and also the high school teachers' ideas were taken into account. Sixty second grade high school students were selected after the administration of OPT test as the participants. L3 and L2 learners were chosen from the high schools in Gonbad-e-Qabus and Yazd, respectively.

The GJT was administered and the students were asked to rank the judgment scale. All the instructions were supplied in their mother tongue and the time limit was clarified. Also, they were provided with an example on the board, in order not to make mistakes in answering the items. The time allocated for this test was 10 minutes. Furthermore, the problematic words were given to the students in a list with their meanings in Persian, and they were asked to feel free to ask the words they are unsure of their meanings.

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After one week interval, the second test (i.e., the Production Test) was administered to the same participants at the same room and the same time. The participants were informed about the time limit, and also the instructions were explained to them in their mother tongue. The time devoted for this task was 15 minutes. It should be mentioned that learners were supposed to look at sentences written in their mother tongue and translate them into English. Also, the equivalences for problematic words were given to them in English, so that they would not have any difficulty finding the meanings of the words, and they were informed to ask the meaning of any word they could not decipher.

Data Analysis

Quantitative methods were used to analyze data. The responses provided by the participants in the two tests namely, GJT and Translation Test were analyzed using the SPSS software. The analysis procedure is as follows: for the GJT, and for the correct items in English, the responses of completely possible (+2) and slightly possible (+1) (i.e. the likert scale) were considered as the correct answers (the numbers are only nominal indicating the degree of the participants' agreement) and were given the score of (1). For the incorrect English items, the responses of the completely impossible (−2), slightly impossible (−1) and no idea (0) (i.e. the likert scale) were considered as the wrong answers and were given the score of (0) (the numbers are only nominal indicating the degree of the participants' agreement. In order to have a thorough view of the different structures tested in this task, the total mean score of the structure under study was computed.

On the other hand, in the case of the Translation Test, all the correct answers were given the score of (1) and all the incorrect ones were given the score of (0). As the main focus of this study was the syntactic difference in three languages under study, the lexical errors were ignored, and the mean scores of adjectives were computed. In order to investigate the research hypotheses, 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 hypotheses, between subjects ANOVA was applied.

4. Results

In this section, the empirical results of the study are presented. This section is divided into two sub-sections namely, the results of GJT and also the results of Production Test. The GJT consisted of items on Adjective Placement. Bearing this variable in mind, ANOVA was run to explore the hypotheses under investigation. To fulfill this, the mean score of Adjectives was computed. Using ANOVA, the effect of gender and language on Adjective variable was compared and contrasted.

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Grammaticality Judgment Test

A univariate ANOVA was conducted in order to explore the nature of English Adjective Structure, which is similar across Turkmen participants' L1 and L3 (i.e., both have the structure of 'adjective + Noun'), on the acquisition of L3 English. Table 3 presents the participants' mean percentages in English adjective Context.

Table 3: *The Participants' Mean Percentages of English Adjectives on GJT*

Gender	Language	Mean	Std. Deviation	N
Male	Turkmen	8.67	1.345	15
	Persian	4.73	1.100	15
	Total	6.70	2.336	30
Female	Turkmen	9.13	1.457	15
	Persian	5.13	1.598	15
	Total	7.13	2.529	30
Total	Turkmen	8.90	1.398	30
	Persian	4.93	1.363	30
	Total	6.92	2.424	60

As it is illustrated in the above-mentioned Table, Turkmen learners obtained higher mean scores (M = 8.90, SD = 1.398) than Persian learners (M = 4.93, SD = 1.363). The mean score of the Turkmen male participants (M = 8.67, SD = 1.345) was higher than that of the Persian male participants (M = 4.73, SD = 1.100), similarly, the mean score of the Turkmen female participants (M = 9.13, SD = 1.457) was higher than that of the Persian female participants (M = 5.13, SD = 1.598). This Table shows that Turkmen learners acted far better than Persian learners in acquiring the adjective structure which is similar in their mother tongue and L3. Also, gender of the learners might not be deterministic in the acquisition of the above-mentioned structure. To investigate the null hypotheses of the study table 4 needs to be checked.

Table 4: *The Results of Between-subjects ANOVA for English Adjectives (GJT)*

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	238.850[a]	3	79.617	41.385	.000	.689
Intercept	2870.417	1	2870.417	1492.048	.000	.964
Gender	2.817	1	2.817	1.464	.231	.025
Lang	236.017	1	236.017	122.682	.000	.687
gender * lang	.017	1	.017	.009	.926	.000
Error	107.733	56	1.924			
Total	3217.000	60				
Corrected Total	346.583	59				
Corrected Total			346.583	59		

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As shown in Table 4 above, the results of the between-subjects ANOVA revealed that there was a significant difference between the languages of the participants under study, namely, Turkmen and Persian learners: [F (1, 56) = 122.682, p < .05], and the effect size was large (Eta squared = .687). This fact indicates that the participants acted differently on the acquisition of adjective placement. Therefore, the first null hypothesis of the study which stated that Turkmens do not act differently from Persians in acquiring the adjectives placement is rejected. In other words, Turkmen learners of English outperformed Persian learners of English in acquiring English adjective placement. This might delineate that Turkmen learner use their mother tongue in acquiring L3.

Also, the results of the ANOVA on the Adjective context illustrated in Table 4, proved no significant difference between the performances of the participants regarding their genders, [F ((1, 56) = 1.464, p > .05]. The above data revealed that the gender of the participants was not very deterministic in acquiring the English Adjective structure, and both male and female learners performed similarly in L3 and L2 acquisition. As shown in Table 4, there was no interaction between the participants' languages and their gender differences in acquiring Adjective structure. In other words, the difference between the performance of the male and female participants across two languages under study (i.e., Turkmen and Persian) was not significant. Thus, it could be stated that null hypothesis 2 was accepted. In other words, learners' gender differences have no effect on English L3 and L2 acquisition.

Results of the Production Test

The production task included 5 items and it assessed English Adjectives. In order to check the effects of participants' languages and gender on the acquisition of the above-mentioned structure, one univariate ANOVA was conducted in order to see the nature of Adjective structure in L3 acquisition by two groups of learners namely, Turkmen and Persian. This analysis was done to check the production abilities of the participants. The mean scores of the participants' performance on Adjective structure in the production test are illustrated in Table 5 below.

Table 5: *The Participants' Mean percentages of English Adjectives on PT*

Gender	Language	Mean	Std. Deviation	N
Male	Turkmen	4.53	.640	15
	Persian	2.73	1.580	15
	Total	3.63	1.497	30
Female	Turkmen	4.87	.352	15
	Persian	2.13	1.356	15
	Total	3.50	1.697	30
Total	Turkmen	4.70	.535	30
	Persian	2.43	1.478	30
	Total	3.57	1.588	60

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As shown in the above table, Turkmen learners outperformed Persian learners in the production test, as it was the case in the GJT. Also, it can be inferred from the above table that this contrast seems more plausible among females than males. The mean score of the performance of Turkmen learners (M = 4.70, SD = .535) was higher than that of the other group, that is the Persian group (M = 2.43, SD = 1.478). As for the males and females in each group, Turkmen male learners (M = 4.53, SD = .640) acted better than Persian male learners (M = 2.73, SD = 1.580) and also Turkmen female participants (M = 4.87, SD = .352) outperformed Persian female participants (M = 2.13, SD = 1.356). To check the null hypotheses of the study, the One-way Between subjects ANOVA was conducted for the context under study namely, Adjective context. Table 6 below represents the results of the between-subjects ANOVA.

Table 6: *The results of Between-subjects ANOVA for English adjectives (PT)*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	80.600[a]	3	26.867	22.082	.000	.542
Intercept	763.267	1	763.267	627.342	.000	.918
Gender	.267	1	.267	.219	.641	.004
Language	77.067	1	77.067	63.342	.000	.531
gender * language	3.267	1	3.267	2.685	.107	.046
Error	68.133	56	1.217			
Total	912.000	60				
Corrected Total	148.733	59				

As shown in Table 6 above, the results of the between-subjects ANOVA revealed that there was a significant difference between participants regarding their languages [F (1, 56) = 63.342, $p < .05$] on the acquisition of English Adjective placement with a high effect size (Eta. squared = .531), while this difference was not significant for gender of the participants. Furthermore, the results confirmed that there was no interaction effect for language and gender [F (1, 56) = 2.685, $p > .05$].

Accordingly, it can be concluded that hypothesis 1 was rejected and hypothesis 2 was accepted. In other words, Turkmen (i.e., L1) learners outperformed Persian (i.e., L2) learners in acquiring L3 structures under study in the production test. Also, it was shown that gender did not have a significant effect on acquiring the English adjective placement by monolingual and bilingual learners.

5. Discussion

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The present study aimed at investigating the role of L1 (i.e., Turkmen) and L2 (i.e., Persian) in the acquisition of L3 (i.e., English). For this aim, English Adjective structure which was similar in L1 and L3 and different in L2 was examined. The students' acquisition of the structures under study was evaluated through two tests namely, the Grammaticality Judgment Test (i.e. GJT) and the Production Test that was a translation test from Turkmen language into English.

The results of both comprehension and production test proved that the L3 group used their L1 in L3 acquisition, that is, similarities of the structures in L1 and L3 helped Turkmen learners to transfer the knowledge of that structure from their L1 into their L3, while the differences in their L2 and L3 did not hinder them in transferring the knowledge of that structure from L1 into L3, as it was proved in a study by Jabbari and Salimi (2015) in which the same results were gained in L3 production. Accordingly, the findings of this study prove the L1 transfer (Håkansson et al., 2002; Hermas, 2010; Jin, 2009; Na Ranong & Leung, 2009). On the other hand, Persian learners could not do well in acquiring the above-mentioned structures, since they had access only to one language before learning the second one. This result can be explained by the fact proposed by Jessner (2006) which claimed that bilinguals and multilinguals benefit from metalinguistic awareness that they gain in knowing two or more languages while the monolinguals lack this ability. Accordingly, in this study, Turkmen learners outperformed Persian learners in adjective placement.

On the whole, the results of this study confirmed the 'L1 Transfer' proposed by Håkansson et al. (2002). Unlike the findings of the studies conducted by Ghezlou, Koosha, & Lotfi (2018, 2019), it disconfirmed 'L2 Status Factor' proposed by Bardel and Falk (2007), and rejected the Typological Proximity Model (i.e., TPM) proposed by Rothman and Cabrelli Amaro (2010), and the findings of the CEM proposed by Flynn et al. (2004) as well. Furthermore, the 'Typological Similarities' and the 'Recency of Acquisition', mentioned earlier, were not effective in the transfer of L1 into L3; since, on the one hand, the languages under study were not typologically similar to each other, hence, "typological similarities" was rejected. And on the other, since the Turkmen learners who had learned Persian recently did not use knowledge of Persian adjective structure, the 'Recency of Acquisition' was also rejected in this study. Although Turkmens have learned Persian recently, they preferred to transfer knowledge of L1 into L3. As for the 'Recency of Use', discussed in the literature, this study cannot issue any conclusions about it. Turkmens speak Turkmen at home and among their friends, while the means of education at schools is the Persian language, so, they use both languages at the same time and the 'Recency of Use' for this context seems to be useless.

As for the role of gender in L2 and L3 acquisition of adjective placement, it was shown that gender did not make a difference in acquisition of the structure under investigation by L2 and L3 learners of English. To be more precise, it did not significantly affect students' comprehension and

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production of English adjective placement. The results are in line with studies which found that gender did not significantly affect L2 acquisition of language skills (e.g., Aditomo & Hasugian, 2018; Majidifard, Shomoossi, & Ghourchaei, 2014). Based on the findings of this study, it was shown that gender did not significantly affect L2 and L3 learners' acquisition of English adjective placement in comprehension as well as production tasks. The findings oppose Slik and Schepens's (2015) results. Using test data from 2500 adult learners of L2 Dutch, they found a significantly positive effect of gender on the productive skills of speaking and writing. Next, it was shown that gender did not have a role in listening comprehension. Also, the male L2 learners fared better than females in reading comprehension.

The findings might pave the way for the least explored-if not unexplored- area of research in Multilingualism i.e., the role of gender in L3 acquisition. Besides, the findings oppose all theories related to gender differences in second language acquisition e.g. human capital approach and gender specific acculturation (see Slik & Schepens, 2015). It seems that there is no gender gap in acquisition of English adjective placement in the multilingual context of Iran. This could be justified on the grounds that both genders have the same opportunities to receive education in general and English learning in particular. Both genders types receive the same number of years of English learning at schools and language schools provide English language teaching services for both gender groups.

6. Conclusion & Implications

The present study examined the nature of transfer from the previously learned languages on acquiring the third language. The participants were Persian learners who had access only to their first language which is Persian and Turkmen learners who had access to both their first language (i.e. Turkmen) and second language (i.e. Persian). The results proved the evidence of using only L1 and not L2 in acquiring English adjective placement. In general, the results showed that Turkmen bilinguals were loyal to their L1 when it came to English adjective placement. Also, this study showed that gender did not have a significant role in English adjective placement by both L2 and L3 learners.

This study could be of great use and importance for both the teachers and the language learners specially in Iranian EFL context and it will help teachers understand the multilingual learners' benefits over other learners. Also, this study might help teachers in multilingual contexts to increase their awareness in teaching the structure under study. There were some limitations carrying out the study. The sample size was limited to 30 students in each language group and also the participants of the study were selected from second grade high school students which make us cautious about generalizing the findings.

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Further research is needed to study other grammatical structures in L3 acquisition such as adjective order, subject-verb agreement, etc. Also, further studies could be done using a larger sample size in other multilingual contexts of Iran such as L3 Kurdish, L3 Turkish, L3 Arabic, etc. Furthermore, other studies could be carried out using students of different language abilities and age groups in other educational contexts such as universities and English language institutes. This study could also be done in a context in which another language (other than Persian language) is the second language of the multilingual community.

Authors' Contributions

All authors contributed significantly to the research process.

Declaration

We declare that this manuscript is original and has not been submitted to any other journal for publication

Transparency Statements

The authors affirm that the data supporting the findings of this study are available within the article. Any additional data can be obtained from the corresponding author upon reasonable request.

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Declaration of Interest

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This manuscript adheres to the ethical guidelines provided by the Committee on Publication Ethics (COPE) for ensuring integrity and transparency in the research publication process.

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References

Aditomo, A., & Hasugian, E. J. (2018). Reading comprehension in EFL among Indonesian adolescents: Gender differences and the influence of parental background. *Indonesian Journal of Applied Linguistics, 8,* 325–335. doi: 10.17509/ijal. v8i2.13279

Bardel, C., & Falk, Y. (2007). The role of the second language in third language acquisition: The case of Germanic syntax. *Second Language Research, 23*(4), 459–484.

Cenoz, J., Hufeisen, B., & Jessner, U. (2001). Looking beyond second language acquisition. *Studies in Tri and Multilingualism. Tübingen: Stauffenburg*.

Chin, D (2009) Language transfer in the acquisition of the semantic contrast in L3 Spanish. In Y.I., Leung (Ed.), *Third language acquisition and Universal Grammar* (pp.30-45). Bristol: MultilingualMatters.

Chomsky, N. (1965). *Aspects of the theory of syntax*. Cambridge, MA: MIT Press.

Clark, L. (1998). *Turkmen Reference Grammar*. Wiesbaden: Harrassowitz Verlag.

De Angelis, G., & Selinker, L. (2001). Interlanguage transfer and competing linguistic systems in the multilingual mind. In J. Cenoz, B. Hufeisen, & U. Jessner (Eds.), Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives (pp. 42–58). Clevedon, UK: Multilingual Matters.

De Angelis, G. (2005). Interlanguage transfer of function words. *Language learning*, *55*(3), 379- 414.

De Angelis, G. (2007). *Third or Additional Language Acquisition.* Clevedon: Multilingual Matters.

Fallah, N., Jabbari, A. A., & Fazilatfar, A. M. (2016). Source (s) of syntactic cross-linguistic influence (CLI): The case of L3 acquisition of English possessives by Mazandarani–Persian bilinguals. *Second Language Research*, *32*(2), 225-245.

Flynn, S., Foley, C., & Vinnitskaya, I. (2004). The cumulative-enhancement model for language acquisition: Comparing adults' and children's patterns of development in first, second and third language acquisition of relative clauses. *International Journal of Multilingualism*, *1*(1), 3-16.

Foroodi-Nejad, F., & Paradis, J. (2009). Crosslinguistic transfer in the acquisition of compound words in Persian–English bilinguals. *Bilingualism: Language and Cognition*, *12*(4), 411-427.

Ghezlou, M., Koosha, M., & Lotfi, A. R. (2018). Acquisition of Adjective Placement by L3 Learners of English: Evidence for the L2 Status Factor. *International Journal of Applied Linguistics and English Literature, 7* (2), 175-184.

Ghezlou, M., Koosha, M., & Lotfi, A. R. (2019). Cross-linguistic Influence in the L3 Acquisition of English Adjective Properties by Azeri-Persian Bilinguals. International Journal of Instruction, 12(1), 1299-1318. https://doi.org/10.29333/iji.2019.12183a

Håkansson, G., Pienemann, M., & Sayehli, S. (2002). Transfer and typological proximity in the context of second language processing. *Second Language Research, 18* (3), 250-273.

[DOI: 10.22034/jcals.1.2.148]

Hammerberg, B. (2001). Roles of L1 and L2 in L3 Production and Acquisition. In *Cross Linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives*, ed. J Cenoz, B Hufeisen, & U Jessner, 21–41. Clevedon: Multilingual Matters.

Hermas, A. (2010). Language acquisition as computational resetting: Verb movement in L3 initial state. *International Journal of Multilingualism*, *7*(4), 343–362.

Jabbari, A.A, & Salimi, H. (2015). L3 acquisition of simple and present progressive tenses by Iranian EFL learners. *SAGE open*, 5(4), 1-8. http://doi.org/10.1177/2158244015615163

Jessner, U. (2006). *Linguistic awareness in multilinguals: English as a third language: English as a third language*. Edinburgh University Press.

Jessner, U. (2008). Teaching third languages: Findings, trends & challenges. *Language teaching*, *41*(1), 15-56.

Leung, Y-kI. (2006). Full Transfer vs. partial transfer in L2 and L3 acquisition. In *Inquiries in Language Development: Studies in Honor of Lydia White*, ed. R Slabakova, S Montrul, and P Prévost, 157–187. Amsterdam: John Benjamins.

Majidifard, E., Shomoossi, N., & Ghourchaei, B. (2014). Risk taking, gender and oral narrative proficiency in Persian learners of English. *Procedia-Social and Behavioral Sciences*, *98*, 1085-1092.

Mirvahedi, S. H., Rajabi, M., & Aghaei, K. (2021). Family Language Policy and Language Maintenance among Turkmen-Persian Bilingual Families in Iran. Diversifying Family Language Policy, 191.

Montrul, S., Dias, R., & Santos, H. (2010). On some null subject parameter-related properties in the L3 acquisition of brazilian portuguese (Sobre algumas propriedades relacionadas ao parâ metro do sujeito nulo na aquisiç & atilde; o do portuguê brasileiro como L3). *Estudos da Língua (gem)*, *7*(2), 199-232.

Murphy, S. (2003). Second language transfer during third language acquisition. *Studies in Applied Linguistics and TESOL*, *3*(2), 1-21.

Muysken, P. (2008). *Functional categories*. Cambridge: Cambridge University Press.

Na Ranong, S., & Leung, Y-k. I. (2009). Null objects in L1 Thai-L2 English-L3 Chinese: An empiricist take on a theoretical problem. In Y-k. I. Leung (Ed.), *Third language acquisition and Universal Grammar* (pp. 162–191). Clevedon: Multilingual Matters.

Rassouli, A., & Osam, N. (2019). English language education throughout Islamic Republic reign in Iran: Government policies and people's attitudes. *SAGE Open*, *9*(2), 2158244019858435.

Radford, A. (2004). *Minimalist Syntax: Exploring the structure of English*. Cambridge: Cambridge University Press.

Rothman, J., & Cabrelli-Amaro, J. (2007). The Psychotypological Syntactic Transfer Hypothesis of the L3 initial state: Evidence from comparing L3 French and L3 Italian. In *5th International Conference on Third Language cquisition and Multilingualism, Stirling, UK, September*.

[DOI: 10.22034/jcals.1.2.148]

Rothman, J., & Cabrelli Amaro, J. (2010). What variables condition syntactic transfer? A look at the L3 initial state. *Second Language Research, 26* (2), 189-218.

Shanon, B. (1991). Faulty language selection in polyglots. *Language and cognitive processes, 6*(4), 339-350.

Siemund, P. (2019). Englisch als weitere Sprache im Kontext herkunftsbedingter Mehrsprachigkeit. *Sprachentwicklung im Kontext von Mehrsprachigkeit–Hypothesen, Methoden, Forschungsperspektiven. Berlin: Springer*.

Slik, F. W. P. Van Der, Hout, R. W. N. M. Van, & Schepens, J. J. (2015). The gender gap in second language acquisition: Gender differences in the acquisition of Dutch among immigrants from 88 countries with 49 mother tongues. PLOS One, November, 1–22. doi: 10.1371/journal.pone.0142056

Tremblay, A. (2005). Theoretical and methodological perspectives on the use of grammaticality judgment tasks in linguistic theory. *Second Language Studies 24* (1), 129–167.

Williams, S., & Hammarberg, B. (1998). Language switches in L3 production: Implications for a polyglot speaking model. *Applied linguistics, 19* (3), 295-333.

APPENDICES

Appendix 1: Grammaticality Judgment Test

نام و نام خانوادگی: سن:

آیا تا به حال در کلاس های زبان انگلیسی خارج از مدرسه شرکت کرده اید؟ مدت:

به نظر شما جمله های انگلیسی زیر تا چه حدی از نظر دستوری درست هستند؟

کاملا درست **2** تا حدی درست **1** بی نظر **0** تا حدی نادرست **1**- کاملا نادرست **2**-

1. I live on street Hafez.
2. There are nice students in this class.
3. John teaches new words to Mary.
4. My house has a room large.
5. I explained the lesson to him.
6. He gave flowers Maryam to.
7. She has pants blue.
8. I love the place where I live.
9. You should not touch food dog.
10. He is a kind teacher.
11. My house has a yard big.
12. She has a milk bottle.
13. He is a young boy.
14. He said "hello" to me..
15. I ate a sandwich hot.

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16. She has a laptop expensive.
17. I posted the letter him to.
18. We have a small apartment.
19. This is my picture family.
20. I went to the restaurant.

	کاملا نادرست	تا حدی نادرست	بی نظر	تا حدی درست	کاملا نادرست
1					
2					
3					
4					
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6					
7					
8					
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10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Glossary

Apartment: آپارتمان
bottle: بطری
call: زنگ زدن
Dress: لباس
explain: توضیح دادن
flower: گل
Hafez :اسم (حافظ)
Lesson: درس
milk: شیر
nice: خوب
pants: شلوار
Picture: عکس
place: مکان
restaurant:رستوران
Say hello to : سلام دادن به
street: خیابان
teach: درس دادن
words: کلمات
yard: حیاط

Appendix 2: Production Test

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نام و نام خانوادگی: سن:

آیا تا به حال در کلاس های زبان انگلیسی خارج از مدرسه شرکت کرده اید؟ مدت:

لطفا جمله های فارسی زیر را به انگلیسی روان بر گردانید.

1. من در خیابان حافظ زندگی می کنم. (من حافظ خیابانینه یاشایارین)
2. علی کلمات جدید را به رضا درس می دهد. (علی تازه لغت لری رضا اورتدی)
3. او معلم مهربانی است. (اول بیر مهربان معلم دیر)
4. او به من سلام داد. (اول منگ بیلن سالام لاشدی)
5. او یک اتاق تمیز دارد. (اونینگ بیر آراسا اتاقی بار دیر)
6. خانه من یک اتاق بزرگ دارد. (منینگ اوییمینگ اولاقان بیر اتاقی بار دیر)
7. آن یک درخت سیب است. (اول بیر آلما باغ دیر)
8. من دختری را که لباس قرمز پوشیده می شناسم. (من قیزل کوینگ گین قیزی تانیاریم)
9. او یک پیراهن قرمز دارد. (اونینگ بیر قیزل کوینگی بار دیر)
10. این عکس خانوادگی من است. (بو منینگ ماشغالامینگ عکسی دیر)

لیست لغات (Glossary)

زندگی کردن: live

سلام دادن: say hello

سیب: apple

عکس: picture

قرمز: red

کلمات: word

لباس: dress

مهربان: kind

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