Acquisition of French (L3) Prepositions by Iranian Learners of English

Fatemeh Khezri, Mohammad Hasan Razmi, Ali Akbar Jabbari, Hamideh Ghadaki

Abstract

Studies in the domain of L3 acquisition have revealed that in the process of L3 acquisition, previously learned languages can be regarded as sources of transfer (Leung, 2005). Therefore, this study has attempted to investigate the role of Persian (L1) and English (L2) in learning French (L3) prepositions in light of three prominent hypotheses (L1 Factor Hypothesis, L2 Status Factor and Cumulative Enhancement Model). To this aim, 40 students majoring in French literature from Isfahan University were selected. The participants were asked to complete two kinds of tests: Translation Test and Grammaticality Judgment Test (GJT). The findings suggested that during the process of L3 prepositional verb acquisition, it was the L1 and CEM that played a great role. By knowing this, it would be beneficial for teachers as well as students to highlight similar prepositional verbs in both French and Persian and improve their learning strategies.

Keywords: L3 acquisition; Prepositions; L2 Status factor; L1 Factor Hypothesis; CEM.

1. Introduction

One of the main issues that has received considerable attention in third language acquisition (TLA) and is of high relevance to both L2 and L3 is the cross-linguistic influence (CLI) in language acquisition. CLI may explain how and under what conditions prior linguistic knowledge can influence the production, comprehension, and development of a target language. Most studies in the field of L3 acquisition have focused on this phenomenon (e.g. Flynn, Foley & Vinnitskaya, 2004; Bardel & Falk, 2007; Rothman & Cabrelli Amaro, 2007, 2010). The current study is an attempt to investigate the acquisition of the prepositional verbs by Iranian learners of French. The prepositional verbs of interest to this research are as follows: Verbs + prepositions as well as verbs, case, number, and gender properties of definite articles fused to the prepositions. The present study delves into the nature of transfer in the realm of L3 acquisition by investigating the role of the four affecting factors in the L3 acquisition namely, L1 transfer, L2 status Factor, Cumulative Enhancement Model.
2. Review of Literature

2.1. Prepositional verbs (PVs) and their use in Persian

Linguistically, Leech (2006) defines a prepositional verb (PV) as “a verb idiom consisting of a main verb followed by a preposition” (p. 91). Look after, decide on, and cope with are the instances of the prepositional verb which a verb can determine an appropriate preposition for the phrase.

First of all, one must notice that prepositions in Persian are of two kinds; simple and compound prepositions. The number of simple prepositions is very limited; however, this study only focuses on this category of prepositions. Simple prepositions are: az “from”, dar “in”, be “to”, baraye “for”, and ba “with”. The examples are provided below to show the use of simple prepositions in Persian sentences.

1. a) Az dars lezat mibaram.  
   b) From reading enjoyment am-taking-1st SG-PRESENT  
   c) I enjoy reading.

2. a) Man dar khane be madaram komak mikonam.  
   b) I at home to mother help am-doing-1st SG-PRESENT  
   c) I am helping my mother at home.

3. a) Shoma bayad be ahdafetan fekr konid.  
   b) You must to purpose-s think -2nd PL-PRESENT  
   c) You must think about your purposes.

4. a) Baraye ayandetan barnamerizi konid.  
   b) for future your plan do-2nd PL-PRESENT  
   c) plan for your future.

5. a) Man ba madaram be kharid raftam.  
   b) I with mother-my to shopping go-1st SG-PAST  
   c) I went shopping with my mother.

Furthermore, in Persian linguistics, prepositional verbs are called “motammem” which is defined as a noun followed by a preposition. Prepositions are the integrated part of motammem without which it is not called motammem. There are two kinds of motammem: optional or obligatory motammem. A verb requires the obligatory motammem and the preposition used is specified for the verb. However, optional motammem are adverbs accompanied by a preposition. Since they are very much similar to each other, it is confusing to tell them apart and identify them as unique features. Therefore, first it deems essential to operationalize the conceptualizations in order to draw a distinction between the obligatory and optional motammem. The most salient way in this regard is to examine a given verb; some verbs possess motammem, otherwise the meaning is destroyed. The verb like “tarsidan” (to be scared) requires motammem without which the meaning is not completed. See the examples below:

6. a) Hamideh mi-tarsad.  
   b) Hamideh is scared-3rd SG-PRESENT  
   c) Hamideh is scared.
2.2. Prepositional verbs (PVs) in English

Aronson (1984, p. 116) states that “a preposition, combined with an object (noun, pronoun, or gerund), forms a prepositional phrase, which imparts information about a word in the sentence”. One should notice that understanding which preposition to use after a particular noun, verb or adjective is not very much easy. It is worth mentioning that English prepositions have several functions which may not correspond to prepositions in other languages. Thus, combinations of verbs and prepositions may pose difficulty for learners of English. O’dowd (1998, p. 113) defines prepositional verbs as “verb-preposition sequences are lexicalized collocations which hook up a particular verb with a particular preposition”. The sequences are called prepositional verbs according to Jacobs (1993).

2.3. Prepositional verbs (PVs) in French

With respect to the universal concept of prepositional verbs, this study aimed at conducting research in L3. Therefore, prepositional verbs are present in Persian, English, and French, and they require a specific preposition for a particular verb. Nevertheless, it does not necessitate the occurrence of one particular verb followed by a preposition in all these three contexts. For instance, L2 (English) may require a preposition, but not in French. Consequently, these verbs can easily puzzle the language learner affecting their production and comprehension during the L3 acquisition.

2. 4. L3 acquisition hypotheses

2.4.1. L1 factor hypothesis:

This hypothesis claims that in L3 acquisition, this is the L1 that has a main role in L3 (Håkansson, Pienemann, & Sayheli, 2002). Regarding this hypothesis, PVs that are similar in L1 and L3 but different in L2, are transferred from L1 to L3. Example (8) below represents this characteristic across the three languages under study that is Persian, English, and French respectively.

(8) Báyad be doctor telefon zan-am.
English: I must telephone the doctor.
French: Je dois telephone au docteur.

2.4.2. L2 status factor hypothesis.

Bardel and Falk (2007) introduced this term to confirm the main role for L2 in L3 acquisition. In this regard, PVs which are similar in both the L2 and L3, but different from L1, are transferred from L2 to L3.

(9) Saey kon tamâmash koni.
English: Try to finish it.
French: Tâcher de finir.

2.4.3. Cumulative enhancement model hypothesis:

According to Flynn et al. (2004), all languages known (L1 and L2) may act as a source for transfer, but the L2 only supersedes the L1 when the structure ‘searched for’ is not present in the L1: “Language learning is cumulative, all languages known can potentially influence the development of subsequent learning” (2004, p: 5).
The present study also intended to explore the role of proficiency in L3 acquisition. According to the free online dictionary (http://www.thefreedictionary.com), proficiency in language means “the level of competence in the language, or the state or quality of being proficient”. Proficiency has been considered one of the most important factors in the studies of CLI. There are contrastive views among researchers about the proficiency level of both the target and the native language and their effect on transfer. Some studies argue that transfer happens at the low proficiency level (Dewaele, 2001; Fuller, 1999; Hammarberg, 2001; Williams & Hammarberg, 1998), while others embark on a contrasting view by stating that higher levels of proficiency are associated with more positive transfer in the L3 acquisition (see, for example, Williams & Hammarberg, 1998; Leung, 2006). This study seeks to examine whether the learners' proficiency level in L1 and/or L2 exerts any impacts on the transfer of PVs into L3 or not.

3. Method
This study intended to investigate the following null hypotheses:
1. Persian learners of French do not transfer Persian (L1) prepositional verbs into French (L3).
2. Persian learners of French do not transfer English (L2) prepositional verbs into French (L3).
3. Persian learners of French do not use the prepositional verbs of L1 (Persian) and L2 (English), common in L3 (French).
4. Proficiency has no effect in acquiring L3 (French).
5. Proficiency plays no role in morpho-syntactic area of acquiring L3 (French).

3.1. Participants
A total of 40 participants took part in this study. The participants were all female with an age range of 20-22. Thus, this study consisted of 40 native speakers of Persian with English as their L2 and French as their L3. As the overarching goal of this research was to investigate the L3 acquisition of prepositional verbs, the participants must be intermediate learners of French or above. Hence, they were selected from the female university students of French literature in B.A. at Isfahan University, Iran. After scoring their English and French Oxford Placement tests, they were divided into two groups, each group comprised 20 participants, one lower-intermediate and the other upper-intermediate regarding their French proficiency level. In terms of English proficiency, they were placed at the intermediate level.

3.2. Instruments
In order to measure the participants' proficiency level in both English which was their second language, and French which was their third language, two oxford placement tests (OPC), one in English to measure the participants English proficiency level, and the other in French to measure their French proficiency level, were administered.

3.2.1. English Oxford Placement Test
The first test that conducted in this research was the English Oxford Placement Test to measure the participants' English proficiency level. Since English was the participants' L2, it was necessary to examine whether they were in a proper level of English to transfer its PV properties into French. For this reason, knowing the PV structures of English required the learners to be at least in the intermediate proficiency level. For this purpose, the paper and pencil version of the Oxford Quick
Placement Test (2001) was administered to 40 subjects who were B.A. students of French literature at Isfahan University.

3.2.2. French Oxford Placement Test

The second test in this study was the French Oxford Placement Test. Since the participants’ third language was French, it was necessary to measure their proficiency level in French language. The participants should at least be at lower-intermediate level of French to understand the PV constructions of this language. In this regard, the participants who were selected in the English Oxford Placement Test were given the French Oxford Placement Test, too. Out of these 40 subjects, 20 got the level of lower-intermediate, and 20 got the level of upper-intermediate in French proficiency test. Then two types of tests namely, Grammaticality Judgment Test (GJT) and the Translation Test were conducted in order to check the comprehension ability of the learners and the production ability of the learners respectively.

3.2.3. The Grammaticality Judgment Test (GJT)

Tremblay (2005) states that linguists gain a benefit of the grammaticality judgment test (GJT), as the most widespread data collection procedure, to observe the learners’ competence (the subconscious knowledge of language). With this purpose, the study used a GJT to measure the comprehension ability of the learners (see the Appendix A). The test consisted of 20 items, each followed by three options of correct, incorrect, and I do not know, written in French and the students were asked to judge the grammaticality of each sentence. Among these items, there were 4 distracters, and the rest of the items were all representative of prepositional verbs in French. All the items were designed on the basis of the four scenarios of the research. The first scenario which relates to the corresponding L1 factor hypothesis is indicated by the letter ‘A’ and consists of 4 items; the second scenario which is in accordance with the L2 status factor hypothesis is shown by the letter ‘B’ and consists of 4 items; the third scenario of this study which conforms to the Cumulative Enhancement Model is illustrated through the letter ‘C’ consisting of 4 items; and the last scenario of this study dealt with the morpho-syntax is shown by the letter ‘D’ and is comprised of 4 items.

3.2.4. The Translation Test

Duff (1989) considers a translation task as a valid language activity aiming “to help us to understand better the influence of one language on the other”. Therefore, it demands a test which is able to assess the actual performance of the learners that is the translation task. The translation test (see the Appendix B) was prepared in the written form consisting of 20 items in the learners’ mother tongue (i.e. Persian) and the participants performed a pen and paper task to translate the sentences into French (i.e. their third language). They were given as much time as they required and were persuaded to make a guess if they were not sure of the answers. All the items in this test, aside from 4 distracters, were set according to the four hypotheses mentioned previously.

3.3. Data Collection Procedure

Two Oxford Placement tests, in English and French, were used to assess the proficiency level of participants in both English (L2), and French (L3). The results obtained from the English Placement Test suggested that all the participants were at the intermediate level. Having assessed their French proficiency, we placed 20 of them in the upper-intermediate and 20 in the lower-intermediate level. Both groups of learners were tested by one of the researchers, with the condition in which the tests were given the same.

Having identified the participants’ proficiency level in French and English, we classified them into two groups of lower and upper-intermediate including 20 participants in each group. Then the translation test was administered and the participants were informed about the time constraint. The instructions were explained to them in their mother tongue. The time they must put into this task was 30 minutes. They were required to read the Persian sentences and give proper French
equivalence for that item. To obtain the desired results based on the four hypotheses regarding prepositional verbs, some French equivalent verbs were provided for the participants.

After a one-week interval, the Grammaticality Judgment Test was administered to the participants to gauge their comprehension of the prepositional verbs. Adequate time was given to the participants and the instructions were provided orally. Also, the students were asked to identify the best grammatical option. Each item comprised three options of ‘True’, ‘False’, and ‘I don’t know’. Below is the detailed explanation of each context of the two tests with regard to the four hypotheses under study.

4. Results
4.1. Translation test

This section is divided into two subsections of, ‘classification’ and ‘result. In the ‘classification’ section all the information about the variables, their classification, and the types of analyses used are presented, and in the ‘results’ section, the results of the analyses are presented.

4.1.1. Classification in Translation Test

It was the translation test that allowed us to measure the participants’ performance and production on prepositional verbs. This test contained 20 items written in the participants’ native language (Persian) based on prepositional verbs. The items were divided into four parts. The first part comprised the items dealing with the first hypothesis under study namely, ‘L1 Factor hypothesis’. The second part included the items relating to the second hypothesis, ‘L2 Status Factor’, the third part of this test represented the items based on the ‘CEM’, and the last part included the morpho-syntactic issue. Also, to explore the effects of these three hypotheses on the participants’ performance, a mixed between-within subject ANOVA was conducted in the translation test. The detailed description of the results of this analysis is presented in the following section.

4.1.2. Results of the Translation Test

Table 1 offers the descriptive statistics for prepositional verbs in the three contexts between the lower and upper-intermediate groups. In comparison to other contexts, the upper-intermediate group in the first context was more accurate than the lower-intermediate group in producing the prepositional verbs (Mean difference = 22.5). Table 1 illustrates the results more vividly.

<table>
<thead>
<tr>
<th>Level</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tr-A</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper intermediate</td>
<td>96.25</td>
<td>9.15</td>
<td>20</td>
</tr>
<tr>
<td>Lower intermediate</td>
<td>73.75</td>
<td>20.63</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>85.00</td>
<td>19.44</td>
<td>40</td>
</tr>
<tr>
<td><strong>Tr-B</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper intermediate</td>
<td>58.75</td>
<td>18.62</td>
<td>20</td>
</tr>
<tr>
<td>Lower intermediate</td>
<td>50.00</td>
<td>29.24</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>54.38</td>
<td>24.60</td>
<td>40</td>
</tr>
<tr>
<td><strong>Tr-C</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper intermediate</td>
<td>67.50</td>
<td>20.03</td>
<td>20</td>
</tr>
<tr>
<td>Lower intermediate</td>
<td>68.75</td>
<td>22.76</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>68.12</td>
<td>21.17</td>
<td>40</td>
</tr>
</tbody>
</table>

As it is depicted in the table above, in the first hypothesis (i.e. L1 Factor hypothesis) there is a significant difference between the mean score of the two groups of lower and upper-intermediate (Mean difference=22.5) since the scores are different from each other. However, this difference is not obviously shown in the second and third contexts (i.e. L2 Status Factor & CEM) because there is almost a small difference between the mean score of the lower-intermediate group and the upper-intermediate in these two contexts (Mean difference=8.75, Mean difference=1.25). The contrast will be discussed in more detail in the following section.
In order to analyze the result of the translation test, a mixed between-within subjects analysis of variance (ANOVA) was conducted to find out the impact of the three contexts (i.e. the three mentioned hypotheses) on two groups of participants. The interaction effect between the three contexts and the group level in the translation test was statistically significant [Wilks’ Lambda = 0.82, F (2, 37) = 4.03, p = .02, partial eta squared = 0.18]. The results showed that there was an interaction effect between the three contexts and the level. Table 2 represents the results of the first mixed ANOVA.

Table 2. Results of Mixed Between-subjects ANOVAs in Translation Test

<table>
<thead>
<tr>
<th>Effect Context</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pillai’s Trace</td>
<td>.580</td>
<td>25.59a</td>
<td>2.00</td>
<td>37.00</td>
<td>.00</td>
<td>.58</td>
</tr>
<tr>
<td>Wilks’ Lambda</td>
<td>.420</td>
<td>25.59a</td>
<td>2.00</td>
<td>37.00</td>
<td>.00</td>
<td>.58</td>
</tr>
<tr>
<td>Hotelling’s Trace</td>
<td>1.384</td>
<td>25.59a</td>
<td>2.00</td>
<td>37.00</td>
<td>.00</td>
<td>.58</td>
</tr>
<tr>
<td>Roy’s Largest Root</td>
<td>1.384</td>
<td>25.59a</td>
<td>2.00</td>
<td>37.00</td>
<td>.00</td>
<td>.58</td>
</tr>
<tr>
<td>context * level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pillai’s Trace</td>
<td>.179</td>
<td>4.03a</td>
<td>2.00</td>
<td>37.00</td>
<td>.02</td>
<td>.17</td>
</tr>
<tr>
<td>Wilks’ Lambda</td>
<td>.821</td>
<td>4.03a</td>
<td>2.00</td>
<td>37.00</td>
<td>.02</td>
<td>.17</td>
</tr>
<tr>
<td>Hotelling’s Trace</td>
<td>.218</td>
<td>4.03a</td>
<td>2.00</td>
<td>37.00</td>
<td>.02</td>
<td>.17</td>
</tr>
<tr>
<td>Roy’s Largest Root</td>
<td>.218</td>
<td>4.03a</td>
<td>2.00</td>
<td>37.00</td>
<td>.02</td>
<td>.17</td>
</tr>
</tbody>
</table>

Furthermore, the tests of between-subjects effect showed that there was a significant difference between the two groups of lower and upper-intermediate [F (1, 38) = 7.2, p < 0.05, partial eta squared = 0.15]; and the effect size was large.

Table 3. A One-way between-groups ANOVA in Translation Test

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tr-A Between Groups</td>
<td>5062.500</td>
<td>1</td>
<td>5062.500</td>
<td>19.858</td>
</tr>
<tr>
<td>Within Groups</td>
<td>9687.500</td>
<td>38</td>
<td>254.934</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14750.000</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tr-B Between Groups</td>
<td>765.625</td>
<td>1</td>
<td>765.625</td>
<td>1.274</td>
</tr>
<tr>
<td>Within Groups</td>
<td>22843.750</td>
<td>38</td>
<td>601.151</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>23609.375</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tr-C Between Groups</td>
<td>15.625</td>
<td>1</td>
<td>15.625</td>
<td>.034</td>
</tr>
<tr>
<td>Within Groups</td>
<td>17468.750</td>
<td>38</td>
<td>459.704</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17484.375</td>
<td>39</td>
<td></td>
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</tr>
</tbody>
</table>

In addition, to compare the morpho-syntactic knowledge of upper-intermediate and lower-intermediate in the translation test, an independent-samples t-test was conducted. To find out whether there was a significant difference between the two groups on morpho-syntax, the following results are presented.

Table 4. Independent Samples t-test for Morpho-syntax

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>SD Error Mean</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morpho-Syntax</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper-intermediate</td>
<td>20</td>
<td>85.00</td>
<td>14.956</td>
<td>3.344</td>
<td>7.49</td>
<td>38</td>
<td>.000</td>
</tr>
<tr>
<td>Lower-intermediate</td>
<td>20</td>
<td>36.25</td>
<td>24.967</td>
<td>5.583</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a significant difference between the score the upper-intermediate group (M=85, SD=14.95) and the lower-intermediate, M = 36.25, SD = 24.96; t (31.08) = 7.49, p = .000 (2-tailed). The magnitude of the differences in the means (means difference = 48.75, 95% CI: 35.47 to 62.02) was large (eta squared= 0.5).
4.1.3. The GJT

Similar to the first section that dealt with the translation test, this section is divided into two subsections of ‘classification’ and ‘result’. The classification part deals with the grouping, classifying, and describing of the variables in this test, and also the type of the analysis used; the result section represents the detailed results of the GJT analysis.

4.1.4. Classification in GJT

The GJT (Grammaticality Judgment Task) was designed to measure the production ability of the learners with the consideration of the three already mentioned hypotheses namely, the L1 Factor hypothesis (A), the L2 Status Factor hypothesis (B), and the CEM hypothesis (C). The test comprised 20 items on prepositional verbs which were written in French (L3). The first part included the items representing the first hypothesis (A), the second part contained the items that represented the first hypothesis (B), the third part included the items showing the third hypothesis (C), and the last part was that of morpho-syntax. So as to see the effects of these three hypotheses on the participants’ performance in the GJT, quite similar to the translation test, a mixed between-within subjects ANOVA was conducted. The description of the results of this analysis is elaborated in the following section.

4.2. Results of the GJT

Table 5. provides the descriptive statistics for prepositional verbs in the three contexts between the lower and upper-intermediate groups. In comparison to other contexts, the upper-intermediate group in the first context was more accurate than the lower-intermediate group in comprehension of the prepositional verbs. (Mean difference = 33.75). Table 5 displays the results more accurately.

Table 5. Descriptive Statistics the Three Contexts in the GJT

<table>
<thead>
<tr>
<th>Level</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>GJT-A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper-intermediate</td>
<td>88.75</td>
<td>15.120</td>
<td>20</td>
</tr>
<tr>
<td>Lower-intermediate</td>
<td>55.00</td>
<td>28.791</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>71.87</td>
<td>28.413</td>
<td>40</td>
</tr>
<tr>
<td>GJT-B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper-intermediate</td>
<td>68.75</td>
<td>22.762</td>
<td>20</td>
</tr>
<tr>
<td>Lower-intermediate</td>
<td>58.75</td>
<td>20.318</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>63.75</td>
<td>21.890</td>
<td>40</td>
</tr>
<tr>
<td>GJT-C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper-intermediate</td>
<td>82.50</td>
<td>21.613</td>
<td>20</td>
</tr>
<tr>
<td>Lower-intermediate</td>
<td>52.50</td>
<td>31.309</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>67.50</td>
<td>30.592</td>
<td>40</td>
</tr>
</tbody>
</table>

The above table illustrates that in the first context (i.e. L1 Factor hypothesis) there was a considerable difference between the mean score of the participants in the two groups of lower and upper-intermediate (Mean difference = 33.75). However, the second context (i.e. the L2 Status Factor hypothesis) shows a rather slight difference in the mean scores of the participants in the two groups of lower and upper-intermediate (Mean difference = 10). Also, in the third context (i.e. CEM hypothesis) the statistic represents a difference between the mean score of the participants in the two groups (Mean difference = 30), this difference is larger compared to the second context.

In order to analyze the result of the GJT, a mixed between-within subjects ANOVA was performed to see the impact of three contexts (i.e. L1 Factor, L2 Status Factor & CEM hypotheses) on the two groups of lower and upper-intermediate participants based on the participants’ French proficiency level. The interaction effect between the three contexts and the group level in the GJT was statistically significant, (Wilks’ Lambda=0.84, F (2, 37) = 3.39, p<0.05, partial eta squared=0.15) the effect size was small. Table 6 below represents the results of the mixed between-subjects ANOVA.
Furthermore, tests of between-subjects effect showed that there was a significant difference between the two groups of lower and upper-intermediate \( F (1, 38) = 36.20, p < 0.05, \) partial eta squared = 0.48, which shows a large effect size. Table 7 below represents the results of the between-subjects effects in the GJT.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>GJT</td>
<td>.067</td>
<td>1.321\textsuperscript{a}</td>
<td>2.00</td>
<td>37.00</td>
<td>.27</td>
<td>.06</td>
</tr>
<tr>
<td>Wilks’ Lambda</td>
<td>.933</td>
<td>1.321\textsuperscript{a}</td>
<td>2.00</td>
<td>37.00</td>
<td>.27</td>
<td>.06</td>
</tr>
<tr>
<td>Hotelling’s Trace</td>
<td>.071</td>
<td>1.321\textsuperscript{a}</td>
<td>2.00</td>
<td>37.00</td>
<td>.27</td>
<td>.06</td>
</tr>
<tr>
<td>Roy’s Largest Root</td>
<td>.071</td>
<td>1.321\textsuperscript{a}</td>
<td>2.00</td>
<td>37.00</td>
<td>.27</td>
<td>.06</td>
</tr>
<tr>
<td>GJT* level</td>
<td>.155</td>
<td>3.394\textsuperscript{a}</td>
<td>2.00</td>
<td>37.00</td>
<td>.04</td>
<td>.15</td>
</tr>
</tbody>
</table>

Since there was a main effect for the three contexts, three one-way between-group ANOVAs were conducted to explore where this difference lied among the three contexts. There was a statistically significant difference at the p <0.05 level in the scores of the two contexts (i.e. L1 factor hypothesis & CEM) for the two groups of participants, context A: \( F (1, 38) = 21.54, p < 0.05, \) and context C: \( F (1, 38) = 12.43, p < 0.05. \) But context B (i.e. L2 status factor) showed no statistically significant difference in the scores in the two groups, context B: \( F (1, 38) = 2.14, p = 0.15. \) Table 4.14 below represents the results of the three one-way ANOVAs in the GJT.

Moreover, to compare the morpho-syntactic knowledge of upper-intermediate and lower-intermediate in the GJT, an independent-samples t-test was conducted. To find out whether there is a significant difference between two groups on morpho-syntax, the following result is presented.

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GJT-D</td>
<td>20</td>
<td>95.00</td>
<td>10.26</td>
<td>2.294</td>
<td>8.75</td>
<td>38</td>
<td>.000</td>
</tr>
<tr>
<td>Upper intermediate</td>
<td>20</td>
<td>40.00</td>
<td>26.157</td>
<td>5.849</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a significant difference between the score of the upper-intermediate group (\( M = 95, SD = 10.26 \)) and the lower-intermediate, \( M = 40, SD = 26.15; t (24.71) = 8.75, p <0.05 \) (2-tailed). The magnitude of the differences in the means (means difference=55.00, 95% CI: 42.05 to 67.94) was large (eta squared= 0.6).

5. Discussion

5.1. Discussion of the translation test

Concerning the prepositional verbs in L1, L2, L3, and morpho-syntax, the analyses for the translation test were done. Based on the three prominent hypotheses in the domain of L3
acquisition, the items were assigned into three parts according to the prepositional verbs. First, the L1 Factor hypothesis (context A), which takes into account only the role of L1 in L3; and second, the L2 Status Factor hypothesis (context B), which claims the role for L2 in L3; and third, the Cumulative Enhancement Model hypothesis (context C), which considers the role for both L1 and L2 in L3. To this end, a mixed between-within subjects ANOVA was conducted to see the performance of two groups of lower and upper-intermediate learners on the three contexts of L1 transfer, L2 transfer, and Cumulative Enhancement Model (CEM), based on the prepositional verbs. As Table 1 illustrated, the upper-intermediate group outperformed the lower-intermediates in the two contexts of L1 transfer and L2 transfer, since the mean scores of the participants in the upper-intermediate group in the first context (i.e. L1 transfer) and the second context (i.e. L2 Status Factor) were higher than the mean score of the lower-intermediate group. The upper-intermediate group gained the mean score of \((M = 96.25, SD = 9.15)\), while the lower-intermediate group got \((M = 73.75, SD = 20.63)\) in the first context. This suggests that the upper-intermediate learners mostly transferred positively their knowledge of prepositional verbs more than the lower-intermediate learners into their third language (French). However, in the second context (i.e. L2 Status factor), there was not a significant difference between the mean score of the two groups of participants, and the analysis showed that the upper-intermediate group slightly outperformed the lower-intermediate group and obtained a higher mean score than the upper group of participants in that context. The upper-intermediate group of learners got the mean score of \((M = 58.75, SD = 18.62)\) which was higher than the mean score of the lower-intermediate learners who got \((M = 50, SD = 29.24)\). Surprisingly, context C showed no significant difference between the two groups, where the lower-intermediate took the benefit of L1 and L2. The lower-intermediate group of learners for context C got the mean score \((M = 68.75, SD = 22.76)\) which was rather similar to the mean score of the upper-intermediate learners who got the mean score \((M = 67.50, SD = 20.03)\). This also suggests that in L3 acquisition, the knowledge of prepositional verbs of both L1 and L2 of both groups transfer into their L3. It means those learners who had been placed at the upper-intermediate level of French proficiency did transfer their prepositional verb knowledge of the previously learned languages, which are English and Persian in this study, into their third language (French), however, it was not different from the lower-intermediates. With respect to the CEM hypothesis, this study supported its role in the L3 acquisition.

Dealing with the second context (i.e. L2 Status Factor), the results denoted that there was no significant difference in the mean score of the participants between the two groups. The mean score of the upper-intermediate group in the first context (i.e. L2 Status factor) was \((M = 58.75, SD = 18.62)\) and the mean score of the lower-intermediate group was \((M = 50, SD = 29)\). This result proved that in the domain of L3 acquisition there is not a main role for L2 transfer, since both groups performed, to some extent, the same and there was not any significant difference between the mean score of the two groups in this context. Consequently, this study could claim that in the acquisition of prepositional verbs there was no difference between the upper and lower-intermediate learners in the transfer of prepositional verbs from their L2 (English) into their L3 (French).

Moreover, Table 2 showed that there was an interaction effect between the two groups with the three contexts (i.e. L1 transfer, L2 transfer, & CEM). The interaction effect between the three contexts and the group level in the translation test was statistically significant.

To see the exact place of the significant difference, a one-way ANOVA was conducted. Table 6 illustrated the results of the one-way ANOVA which shows the difference among these three contexts.

The findings support the role of L1 in the L3 acquisition of prepositional verbs, and also prove the CEM hypothesis which states that for L3 acquisition all the background languages have a role. So, in this study we can claim that the learners of both upper and lower-intermediate in French proficiency level transferred their knowledge of background languages, that is, their L1 (Persian) prepositional verbs into their third language during the acquisition process. Since, on the basis of L1 Factor Hypothesis in L3 acquisition, transfer occurs only from L1 to the L3 and there is no role for L2 transfer. As we saw, the results showed that there is a strong role for L1 in the L3 acquisition. Also, the results proved the Cumulative Enhancement Model hypothesis (CEM). This means
that according to CEM during L3 acquisition all previously learned languages can have a role and the syntactic structures transfer from the background languages to the L3, but this transfer phenomenon is positive. Thus, PV constructions can be transferred from L1 (Persian) or L2 (English) or both to the L3 (French).

According to the findings mentioned previously, it can be concluded that in the acquisition of PV constructions by the two groups of lower and upper-intermediate learners of French, their L1 (English) played the major role in their L3 (French) and the learners of both groups transfer the PV constructions from their L1 to their L3. However, this degree of transfer is much more for the upper-intermediate group of learners than for the lower ones. This means that the more proficient the learners become in the acquisition of PV construction in L3 (French), the more they transfer such structures from their L2 (English) and also to a lower degree from their L2 (Persian) to the L3 (French). Accordingly, the null hypothesis 2 is confirmed and the properties of PV constructions do not transfer from L2 (English) to L3 (French); (the L2 Status Factor hypothesis).

Also, the fourth null hypothesis was rejected which states that the learners' proficiency level does not have a major role in acquiring the PV constructions of French and the more proficient the learners become in French PV constructions, the more transfer of this structure would not occur from their background languages.

For the last null hypothesis under study, the results rejected it, since there was a significant difference between the mean score of both groups regarding morpho-syntax. This means that in the acquisition of morpho-syntactic constructions proficiency plays a role. Thus, the last null hypothesis is rejected which states that proficiency does not affect the morpho-syntactic constructions of the PVs.

5.2. Discussion of the Grammaticality Judgment Test (GJT)

The second series of the analyses were for the GJT. In these analyses the performance of the two groups under study namely, lower and upper-intermediate learners were compared and contrasted in order to see the possible differences between these two groups regarding the acquisition of L3 PVs. For this aim, again a mixed between-within ANOVA was conducted. The items of the GJT similar to the translation test, were divided into four parts based on the PVs; first, the L1 Factor hypothesis (context A), which claims only the role for L1 in L3; and second, the L2 Status Factor hypothesis (context B), which claims the role for L2 in L3; and third, the Cumulative Enhancement Model hypothesis (context C), which claims the role for both L1 and L2 in L3. Considering the table 4.4, the performance of the two groups of learners in the GJT, contrasted significantly in the context A (i.e. L1 S Factor Hypothesis) and in the context C (i.e. CEM).

Considering all the analyses done so far, it can be concluded that the null hypothesis 1 is rejected totally. Persian learners of English (L2) and French (L3) transferred the properties of PV constructions from their native language (i.e. Persian) to the third language (i.e. French). The findings of this study are in line with those of the CEM presented by Flynn et al. (2004) which revealed that the L3 learners transfer the knowledge of both their L1 and L2 into L3 that is they act selectively in transferring the knowledge. As such, the third null-hypothesis is rejected. In this study, Persian learners transferred similar L1 PV constructions into L3.

Furthermore, the analyses of both tests (i.e. GJT and translation Test) proved the null hypothesis 2, which stated that the PV constructions are not transferred from the learners’ L2 to L3, so the L2 Status Factor hypothesis is rejected. It can be concluded from this section that Persian learners did not use their L2 in transferring knowledge into L3.

With respect to morpho-syntax, the last null hypothesis is rejected, since it considers no role for proficiency in acquiring morpho-syntactic knowledge. In this study, proficiency also plays a role in acquiring the morpho-syntactic knowledge of L3 learners. The findings proved that the upper-intermediates did better in the acquisition of morpho-syntax in both tests of production and comprehension.

Finally, the results of the analyses of the two tests rejected the fourth null hypothesis under study which claims that the learners’ proficiency level does not play a major role in acquiring the PVs
of French (L3). Because the results showed that in both of the tests, mostly the upper-intermediate group outperformed the lower-intermediate one in both comprehension and production of the PVs of French. This means that the more the learners become proficient in the comprehension of PVs of French, the more they transfer the PV constructions from their L1 to L3, but not from their L2 to L3.

These findings reject the hypotheses 2, 3, 4 and 5 mentioned in the introduction (i.e. L1 Factor Hypothesis, CEM, proficiency and morpho-syntax respectively). They showed that Persian learners used both their L1 and L2 when required. They preferred to use their L1 in transferring PVs into L3. Also, proficiency played a role in the transfer of PVs into L3.

The first null hypothesis of this study was rejected. However, there are some studies that are in accordance with the findings of the present study such as Håkansson et al. (2002), Leung (2005a&b), Na Ranong and Leung (2009), and Lindqvist (2006, 2009). These studies on L3 acquisition suggest that transfer occurs from L1.

There are some studies that are in contrast with the results of the present study such as García-Mayo (2012, p. 137) which argues that “although absolute L1 transfer at the L3 initial state is a logical working hypothesis, there is no study that has clearly argued for such a position in the recent literature on the L3 initial state”. The difference between this study with that of García-Mayo is that, he focused on the initial state of L3 acquisition.

The second null hypothesis was approved in a way that during L3 acquisition the L2 transfers to L3. In this regard, there are some studies in the field of L3 acquisition which are in contrast with the results of this study, such as Williams and Hammarberg (1998), Leung (2005), Bardel and Falk (2007, 2010), and Rothman and Cabrelli Amaro (2010). All these studies proved the main role for L2 transfer however; each has studied various aspects of L3 acquisition.

The third null hypothesis of the present study dealt with CEM and claimed that the elements of both L1 and L2 can be transferred into L3. Studies such as Flynn et al. (2004) and Leung (2005) are in line with the results of this study and both prove the role of CEM in L3 acquisition.

Nevertheless, there are other studies which are in contrast with the findings of this study and disapprove the role of CEM. Among these the most major one is that of Jaensch (2010) who simply assumed that neither the Cumulative Enhancement Model nor the L2 status factor hypothesis can predict an L2 effect when the features are not present in the same form in the L1 or the L2.

Finally, the fourth null hypothesis under study focused on the role of proficiency and claimed that the more proficient the learners become in L3, the more transfer of elements happens from their previously acquired languages to the new one. In this regard, the results of the present study are in contrast with those of Dewaele (2001), Fuller (1999), Hammarberg (2001), and Williams and Hammarberg (1998). The reason is that these studies showed that the lower the L3 proficiency level of the learners is, the more transfer happens in L2 to L3, while the results of this thesis claims that the more the L3 proficiency level of the learners is, the more transfer happens from L2 to L3. However, Leung (2006) believes that more proficiency in the previously acquired languages is facilitative and causes a positive transfer from the previous languages to the new one. But none of them are in line with the results of the present study that proved the more proficient the learners become in L3; the more transfer occurs from their background languages to the third one.

With respect to the last hypothesis which was rejected, it was the proficiency level of the participants which had an influence on the morpho-syntactic acquisition of the L3 learners.

6. Conclusion

In a nutshell, this study examined the acquisition of French prepositional verbs with respect to Persian as the L1 and English as the L2. The three prevalent hypotheses were presented: the L1 Factor hypothesis, the L2 Status Factor, and the Cumulative Enhancement Model (CEM). To test the hypotheses, two types of tests were used; a translation test and a grammaticality judgment test (GJT). Among many possible factors, it is reasonable to assume that the results support the L1 Factor Hypothesis, since both the upper-intermediate and the lower-intermediate gained a higher
rate in the first context than the other two. Besides, the similarities between L1 and L3 prepositional verbs had a positive transfer effect leading to a facilitative acquisition. It can be assumed that because the English proficiency level of the L3 French learners was not at the threshold level, the learners only transferred the L1 (Tremblay, 2005). Thus, the results were against the first hypothesis considering no role for the L1. Moreover, Gibson, Hufeisen, and Libben findings (as cited in Cenoz, Hufeisen, & Jessner, 2001) were not in favor of the English knowledge in producing German prepositional verbs. They also added that the knowledge of English might act negatively in a way that the learners did consciously avoid any English-like prepositions to get rid of the possible interference. By providing a backing for the present study, this investigation did not reveal any L2 impact with respect to the L3 prepositional verb acquisition and the hypothesis was rejected. This study, moreover, shed light on the role of CEM in the acquisition of the L3 prepositional verbs. In this term, the knowledge of prior languages (Persian and English) could exert overwhelming influence on the learners’ L3. As a result, the rejection of the third hypothesis dealing with no transfer of the CEM has been proved. In addition, the outperformance of the upper-intermediate than the lower-intermediate was significant which demonstrated the role of proficiency in all three contexts. As it was proved, the role of proficiency in the performance of the upper-intermediate, the fourth hypothesis of this study was rejected. The morpho-syntax compatibility with the proficiency level shows the refusal of the fifth hypothesis regarding no role of proficiency on morpho-syntactic knowledge of the L3 learners of prepositional verbs.
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Appendix A

The Grammaticality Judgment Test

1- Ilsuffit d’un petit rayon de soleil pour que je me sentebien.
A) vrai B) Faux C) je ne sais pas
2-Mefiez-vous a cetindividu. Ilestdangereuse.
A) vrai B) Faux C) je ne sais pas
3-Cette employee est parfait: elleveille tout dans la maison.
A) vrai B) Faux C) je ne sais pas
4-Si le spectacle ne commence pas, le public ne va pas tarder de s’impatienter.
A) vrai B) Faux C) je ne sais pas
5-Je vais chez moi.
A) vrai B) Faux C) je ne sais pas
6-vous devez respecter au reglement.
A) vrai B) Faux C) je ne sais pas
7-Cet individuiinjurieta les passants.
A) vrai B) Faux C) je ne sais pas
8-La voiture a heurite au mur.
A) vrai B) Faux C) je ne sais pas
9-Cet enfant n’obeit a personne, il ne fait quecequ’ilveut.
A) vrai B) Faux C) je ne sais pas
10-Elle deteste les matches de football.
A) vrai B) Faux C) je ne sais pas
11-Elle ne s’interesse pas a la music.
A) vrai B) Faux C) je ne sais pas
12. Nous allonsprendreunverre.
A) vrai B) Faux C) je ne sais pas
13-Vous regarder a la television.
A) vrai B) Faux C) je ne sais pas
14-II loge dansune petite maison.
A) vrai B) Faux C) je ne sais pas
15-Les etudiantsontmanifestedeveant le ministere.
A) vrai B) Faux C) je ne sais pas
16-Avez-vous songe au consequences de votreacte?
A) vrai B) Faux C) je ne sais pas
17-Je ne crois pas qu’ilsoitcoupable de meurture don’t on l’accuse.
A) vrai B) Faux C) je ne sais pas
18-Vous devezvoussoumettre aux orders du general.
A) vrai B) Faux C) je ne sais pas
19-Elle est recue a baccalureat avec mention bien, elleestheureuse.
A) vrai B) Faux C) je ne sais pas
20-il ecoute a Julien.
A) vrai B) Faux C) je ne sais pas
Appendix B

The Translation Test

1. جملات زیرا به فرانسوی ترجمه کنید.
2. هواپیماها شروع به بمباران کردند.
3. می توانم از خودکار شما استفاده کنم؟
4. باید به دکتر تلفن زنم.
5. شما خیلی خوب فرانسه صحبت می کنید.
6. او خانه کوچکی در ساحل را آرزو می کند.
7. من به تابلو نگاه می کنم.
8. من به رادیو گوش می دهم.
9. سعی کن تمامش کنی.
10. پاتریس رستوران را ترک کرد.
11. من بسیار از ترک کارم پشیمانم.
12. ازشما متشکرم.
13. نسبت به صحت این نوشته تردید دارم.
14. به خوبی فارسی صحبت می کنم.
15. او همراه خانواده اش در شمال فرانسه زندگی می کند.
16. تعطیلات برای کودکان سود داشته است.
17. بسیار خسته هستم.
18. او از بیماری رنج می برد.
19. آن ها به استاد خندیدند.
20. من گیتار می زنم.