Generative Syntactic Transfer in L2 and L3 Acquisition

via the Channel of Translation

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Abstract

The purpose of this study was two-fold: it primarily intended to incorporate some insights into the newly-explored field of L3A: secondly, it aimed to highlight the significance of translation as a valid language activity in exploring the native language influence on non-native language acquisition process. To this end, it investigated the acquisition of two syntactic properties of head and operator movements in English by L2 and L3 learners within UG framework. The participants consisted of 144 Persian monolingual and Arabic-Persian bilingual learners of English who were assigned to three proficiency bands after taking the general proficiency test (ECPE). The results showed no significant difference between the performance of monolinguals and bilinguals at each level of proficiency. Nonetheless, significant differences were found across the levels of proficiency.

Keywords: L2A, L3A, FFFH, FAFT, Persian-monolingual, Arabic-Persian bilingual, Oral/written translation

1. Introduction

To date the field of second language acquisition of syntax has been dominated by generative models which despite their distinct views share the assumption that grammar building in second language acquisition will be UG-constrained. For the majority of these models, L1 settings are claimed to be influential in the L2 learners' interlanguage grammar though there is considerable variation as to the extent of this effective role (Hawkins & Chan, 1997; Schwartz & Sprouse, 1996; Smith & Tismpli, 1995; White, 1985). Alongside this trend in Second Language Acquisition (SLA), during the last decade, however, there has been an increased interest in a relatively under–explored field, namely, third language acquisition. Cenoze (2001) holds that the learners who come into contact with a foreign language are not always monolinguals. Especially, for learners who are members of linguistic minorities in their countries, the acquisition of English may take place in a multilingual situation which is linguistically more complex than the L1-L2 situation that has usually been considered in the SLA literature. Cook (1992) asserts that the language knowledge of multilinguals is not the same as that of monolinguals.

Iran sets a real example of those countries in which a good number of English learners-especially in secondary and tertiary academic settings- are members of linguistic minorities like Arab, Turkish, and Kurdish. These learners are bilinguals who acquire English as a third language. And they are increasingly identifying themselves as L3 learners of English. As such these learners assume to develop unique interlanguage patterns as they possess a distinct type of language background. This reality along with the growing awareness that approaching language learning through the study of L2 alone seems to yield an incomplete picture of language learning (Vinniskaya & Flynn, 2003) triggered the initiation of this study.

This paper then sets out to empirically substantiate the claim whether English L3 learners' distinct language background causes them to develop interlanguage patterns which are different or similar to those of monolingual learners of English. That is, the major question addressed in this study is the impact of the previously learned languages on the L3 interlanguage patterns and the extent to which the L3 learners' performance with regards to the syntactic features involved in the formation of English questions would be similar to or different from that of L2 learners. In this respect the role of the language background possessed by Arabic-Persian bilingual learners of English is investigated through a comparative study in light of the most recent syntactically- based generative models of L2A, namely, Full Access Full Transfer (FAFT) and the Failed Functional Feature Hypothesis (FFFH). Within this framework the performance of the Arabic-Persian bilinguals on the English questions which involve the syntactic features of head and wh-movement is compared with that of Persian monolingual learners at three levels of proficiency. This comparative study may help to demonstrate whether L3A is different from L2A or it is simply another case of L2A.

As to the methodology, I preferred to adapt translation to other types of data elicitation tasks since a main contribution of translation as a valid language activity is "to help us to understand better the influence of one language on the other" (Duff, 1989). In translation, the language learners are exposed to the form of their mother tongue; this direct exposure would find its way into the learners' interlanguage grammar. Thus, the impact of the native language on the subsequent language learning could be traced more easily in translation.

2. Theoretical Framework

The Failed Functional Feature Hypothesis (Hawkins, 1998, 2000; Hawkins & Chan, 1997) is a particular version of the No Parameter Resetting. This proposal predicts that interlanguage grammars will be confined to L1 feature values, even if there is ample positive evidence to motivate resetting. That is to say, the parameterized properties that are not instantiated in L1 are not available in L2 interlanguage. The logical extension of this prediction to L3A should be that parameterized properties not instantiated in L1 will never be acquired in L3 initial state. The general prediction of FFFH on L3/Ln acquisition implies that persistent L1 transfer effects from the initial state all through to the final state of L3/Ln cause the failure of eventual attainment of target language parameters.

The proponents of Full Access Full Transfer Hypothesis (Schwartz & Sprouse, 1994, 1996) propose that the entire L1 grammar (in the sense of all abstract properties) constitute the initial state in L2A. Furthermore, it is hypothesized that changes to the initial grammar can take place; that is to say, the L2 learners are not confined to representations based on L1 steady state. In fact, the L2 learner has recourse to UG options not instantiated in the L1, including new parameter settings, functional categories and feature values. Full access, then, is their claim about subsequent grammar restructuring during the course of development. Applying the model to L3/Ln acquisition, full transfer is predicted in the L3/Ln initial state but the source is not restricted to L1. In other words, it can be claimed that transfer in L3 does not necessarily come from L1 alone and the parameterized properties are ultimately acquirable in L2/L3/Ln final states.

2.1 Linguistic assumptions

2.1.1 The structure of English questions

Following Chomsky (1995) and Radford (1997), in English, interrogative clauses are CPs headed by a strong C which contains the strong question affix [Q]. The strong Q affix needs an overt head to attach to it. The shortest movement principle requires that this head must be the auxiliary in I. That is, auxiliary moves from the head I position in IP into the Head C position in CP. Since Q also carries a [wh] specifier-feature, the wh-operators move to spec-CP in order to check the interrogative specifier –feature carried by Q. Thus, the two properties of [Q] in English demand two types of movements: head movement to (C position) and operator movement to (spec-CP position).

What did John buy?

$[_{CP}$ what$_i$ $[_C$ did$_j$ +Q $[_{IP}$ John t_j $[_{VP}$ t_j buy t_i]]]]

Such movement or extraction of wh-phrases can also take place from embedded clauses:

Who did Freda discover bought an electric guitar?

$[_{CP}$ who$_i$ $[_C$ did$_j$ $[_{IP}$ Freda t_j discover $[_{IP}$ ti bought an electric guitar]]]]

In main yes/no questions, the [+Q] feature is checked by a null operator in the specifier position. And the [+affixal] property of [Q] imposes Aux-movement.

$[_{CP}$? $[_C$ will$_i$ $[_{IP}$ you t_i marry me]]

2.1.2 The structure of Persian questions

In the formation of yes/no questions in Persian, the yes-no particle ***aayaa*** is used in formal register, yet it is non-overt in informal language. The most common position of this particle is clause-initial. That is, the question particle ***aayaa*** is inserted in the front position (spec-CP) (kahnemuyipour, 2001).

Q president letter Acc to prime minister give-past? (1) aayaa rais Jomhur Name-ra be Naxost vazir dad?

$[_{CP}$? $_C$ aayaa $[_{IP}$ rais Jomhur Narmera be naxost vazir dad]]

Persian is a wh-in-situ language; that is, wh-expressions do not get preposed, but rather occur in their base position (Karimi 1989; Lazard 1992; Raghibdoost 1994; Bateni 1995 Mahootian 1997).One reason why such movement is not licensed in Persian can be due to the proposal that in Persian [spec-CP] is a [-wh] position (Youhanaee, 1997).

(2) Ali ye ketab xarid.	(3) Ali chi xarid?
Ali a book buy- past. 3sg	Ali what buy-past.3sg
'Ali bought a book.'	'What did Ali buy?'
(4) Ali hassan-o zad.	(5) Ali ki-yo zad?

Ali Hassan-Acc hit.Past.3sg   Ali who-Acc hit.Past.3sg

Ali hit Hassan.'   'Who did Ali hit?'

2.1.3 Question formation in Arabic

Similar to Persian in the formation of Arabic yes/no questions C bears [Q] and a question particle (hal) is inserted in the front position (Spec-CP)

(5). Yagru Ahmed algasedata.

Read Ahmed the poem.

Hal yagru Ahmed algasedata?

[Cp hal Ce [yagru Ahmed algasedata]]?

The formation of wh-questions in Arabic is similar to English in that in both languages the syntactic movement of wh-phrase to (Spec-CP) is realized. In Arabic C bears Q and [wh]. The strong [wh] in C triggers the wh-phrase to move to Spec-CP (Benmanoun, 2000; Al-Eid, 2006, P.C.)

(6) Yagru Ahmed algasedata.   (7)   Matha yagru Ahmed?

Read pres Ahmed the poem.   What read pres Ahmed?

Ahmed reads the poem.   What does Ahmed read?

The above account of Question formation in English, Persian and Arabic highlights marked parametric differences and similarities among the three languages concerning the formation of interrogative constructions. As to English and Persian, the latter is a wh-in-situ language but English involves the syntactic wh-movement to Spec-CP and head movement from I to C. On the other hand, Arabic turns to be similar to English in that the formation of wh-questions in Arabic involves the movement of wh-phrase to Spec-CP, but C remains empty. Concerning the formation of yes/no questions in these languages, English is different from Persian and Arabic in that English yes/no questions involve a head to head movement from I to C but in the other two languages the inserting of the Q particle does not require any syntactic changes. That is to say, in Arabic and Persian the question particle moves to Spec-CP but C remains empty.

2.2 Previous generative studies on third language acquisition

Trilingualism has been prominently tapped on within the general context of cross linguistic influence. However, a few studies have ever investigated the syntactic architecture of the initial and subsequent grammars of L3A and the extent to which it is similar or different from L2A. Vinnitskaya, Flynn and Foley (2003) investigated the acquisition of relative clauses in English as a third language and compared the L3 results with the findings of earlier studies on L2 acquisition of English relative clauses. As background, Vinnitskaya, et al. summarized the results of previous studies on L2 acquisition of English relative clauses. It was reported that in these studies, using an imitation task, three types of relative clauses were tested: a) lexically headed relative clauses where the head has semantic content; b) lexically headed relative clauses where the head lacks semantic content; and c) free relative types. The L2 acquisition of the these types of English relative clauses by speakers of Japanese, a head-final language which does not match English, revealed that the free relative appears to be significantly   more productive than either of the lexically headed types   (Flynn, 1983).

Also the results of L2 acquisition of the three types of English relative clauses by L1 speakers of Spanish, a head-initial language like English, revealed that in the acquisition of L2 English by Spanish speakers, the free relative is not a developmental precursor to the lexically headed forms. In this respect, L2 acquisition of English by Spanish speakers appears different from L1 acquisition of English and the L2 acquisition of English by Japanese speakers (Flynn & Lust, 1981).

The results from these previous studies suggest that free relatives are developmental precursors to lexically headed relatives when the learners develop a new CP architecture. However, learners can draw upon earlier experience in constructing CP architecture if a target language matches earlier languages in key features, including branching directions.

Presenting this background, Vinnitskaya et al. (2003) in their L3 study of the same English relative clauses hypothesized that if there is a privileged role for L1 in all subsequent language acquisition, then L3 acquisition of English by L1 speakers of Kazakh should resemble L2 acquisition of English by Japanese speakers (since Kazakh is similar to Japanese in a head direction). On the other hand, if the role of L1 is not privileged, then L3 acquisition of English by L1 speakers of Kazakh who has experience with an L2 which matches English in head direction should resemble L2 acquisition of English by Spanish speakers. To test this hypothesis, Vinnitskaya, et al. used thirty-three adult Kazakh L3 speakers of English who had all acquired Russian as an L2 before acquiring English as an L3. Unlike Kazakh, Russian is a head- initial branching language similar to English. Using an elicited imitation methodology, the

participants responded to the sentences which displayed the same three relative clause types used in previous L1 and L2 studies mentioned in the background.

Results for percent correct (0-100%) indicated that the performance of the Kazakh L1/ Russian L2/ English L3 adult speakers pattern with that of the L1 Spanish/ English L2 speakers as hypothesized. These results indicated that the performance of the Kazakh L3 speakers of English did not evidence the free relative as a significant development precursor to the lexically headed relative clause structures. In other words, all three relative clause structures were equally accessible to the adult Kazakh L3 learners of English. These results vividly contrast with the Japanese results. Since Kazakh is like Japanese in its SOV left-branching structure, this contrast would have been surprising if these speakers had not also had experience with a right-branching language, Russian, as an L2.

In general these results suggest that prior CP development can influence acquisition of CP structure in subsequent languages. Taken together, it was suggested that experience in any prior language can be drawn upon in subsequent acquisition: however, there appears to be no privileged role for the L1. Instead, all prior language experience can be either neutral or enhancing in subsequent language acquisition. Moreover, Leung(2003) investigates the acquisition of the formal features associated with the functional category of T(tense), namely, Finiteness, agreement and [+-past] in French as L3 vs. L2 by Cantonese- English bilinguals and Vietnamese monolinguals. Extending the predictions of the two current L2A competing models namely, the Failed Feature Hypothesis (FFH) and the Full Transfer Full Access (FTFA) to L3A, it was hypothesized that a) according to FFH, the L3 French initial state is to be L1 Chinese final state. That is, [T] and the associated features   of [+-finiteness], agreement and [+-past] should be absent in L3 French interlanguage b) according to FTFA, no such specific prediction could be extended and L1 or L2 final states can both compete in the initial stages of L3 acquisition. In this case all either features of the L1 or L2 can be present in L3 French initial state.

In general, the results on the L3 experimental group have supported the presence of the L2 English steady state in the L3 French initial state. The data are inconsistent with FFH which predicted the L3 French initial state to be L1 Chinese; if such was the case, the verbal features would be expected to be absent from L3 subjects' interlanguage grammar; this is contrary to what the author has found. Actually, the findings supported FTFA hypothesis instead, which has predicted the possibility of L2 effect: verbal features, though absent in L1 Chinese, were acquired in the L2 English acquisition process and these successfully facilitate acquisition in the L3 French initial state. Concerning the L2 group's performance both production and judgment data demonstrated that agreement features were not well in place in the subjects'L2 French initial state. To sum up, L2 group's performance was significantly poorer than that of the L3 group especially with respect to agreement features. It is argued that this is because the L3 group has acquired the relevant properties in English (their L2) which aids the subsequent acquisition of French (the L3) right at the onset; the L2 subjects, on the other hand , do not benefit from   this advantage because they have not acquired English as an L2 previously. This borne out the author's claim that L3 is different from L2A at least as far as the initial state is concerned.

As stated by Leung (2003), there are few comparative studies that have investigated different combinations of source/target languages with respect to some grammatical property to find out about the route of L3 development within a generative framework. Accordingly, it seems worthwhile to pursue generative L3A further by looking at other syntactic properties across different L3 populations.

3. The present study

Based on the theoretical framework presented in section II and the parametric   similarities and differences among the three languages of Persian, Arabic and English as the target language, the present study addresses the following questions in order to accumulate the relevant evidence. Given sufficient exposure to target English:

1) To what extent do Persian monolingual and Arabic-Persian and Arabic-Persian bilinguals perform similarly or differently in the formation of yes-no and simple wh-questions due to the effect of their L1?

2). To what extent does knowledge of a second language affect the   acquisition and the developmental process of third language acquision

To give logical answers to these questions, it is hypothesized:

1) There is no difference between Arabic-Persian bilinguals and Persian monolinguals' performance in the acquisition of English head movement.

2) There is no difference between Arabic-Persian bilinguals and Persian monolinguals' performance concerning the acquisition of operator movement.

3.1 Methodology

3.1.1 Participants

The study was undertaken among second and third language learners of English in Khuzestan. The primary population included Arabic-Persian bilingual and Persian monolingual learners of English who were volunteered university

students majoring in English language and literature. A brief oral interview was conducted to check on the language background of the Arabic-Persian bilinguals. This interview helped the selection of those bilingual learners who were raised in a linguistic community where both parents were Arabs and they used Arabic among the family and local Arabic linguistic community members. The Arabic-Persian learners use Persian extensively in their every day life. So they were advanced or near native speakers of Persian too. The final selection of the monolingual and bilingual learners of English was done on the basis of their performance on Michigan English language proficiency test (Briggs et al, 1997). This was a multiple –choice test consisting of three sections: grammar section with 40 items, vocabulary section with 40 items and a reading part with 20 items. Hence the maximum total possible score was 100.

Following the administration of the general proficiency test, the monolingual and bilingual samples were assigned to three proficiency bands which resulted in six groups of participants: two elementary monolingual and bilingual groups, each consisting of thirty members; two intermediate monolingual and bilingual groups, each consisting of thirty members and two advanced groups, each including twelve members.

3.1.2 The tests

A translation test was used in this study; however, it was administered in two modalities: written and oral (See Appendix II for sample items). The rationale behind using these two tasks was to check the participants' performance in two different modalities and see if more focus on form in the written task would cause any significant change in the L2 & L3 learners' performance on the syntactic properties under investigation. The preparation of the translation test was done in three stages: initially it was decided to include yes/no and wh-questions in this test. Secondly, the grammatical functions of wh-questions (subject, object, adjunct and genitive) and some other features like the type of verb, subject and the tense of yes/no were identified. Given these features, a large number of yes/no and wh-questions, nearly two hundred and fifty were written down and grouped out of which forty-six questions were selected. The final test consisted of ten yes/no questions and thirty-six questions in Persian and Arabic to be translated into English. The same test was administered orally.

It should be noted that the primary order of the test items (the main test items and the filler questions) was scrambled in the final version of the test. As to the format of the test, it was prepared in the form of a checkbook, so the learners could respond to one item at a time. To avoid ambiguity, clear instructions and sample test items for doing the test was given orally and put at the front page of the written task.

3.1.3 Administration, scoring and data analysis Procedures

One week after the participants completed the general proficiency test, the written translation task was given to them. Before they started, clear instruction was given concerning the time limit and the way to perform the task. Also they were not allowed to return to previous items and to change their answers while doing the test. The test took forty-five minutes.

One week later, the oral translation task was conducted. To ensure optimal performance, attempts were made to provide a relaxing testing environment. To perform the task, the administrator read each of the written questions aloud to the individual participant at normal rate of speech; then the learner's oral translation of the heard question into English was tape recorded. Each question sentence was read only once and the participant was asked to translate it as quickly as possible without paying attention to the form and focus on the communication of meaning. Of course, the Arabic-Persian bilinguals were asked to do the oral translation of Arabic version and the Persian monolinguals the Persian version of the questions.

Each correct translation response for the tasks was scored 1. And each wrong response or no response was given a score of zero. Lexical errors were ignored as they were not of any importance to this study.

The results obtained were analyzed using the SPSS software. Implementing this statistical package, firstly the main test items were defined, coded and given value. The values of similar variables were computed in percentage in order to have more organized data. Finally, applying one-way ANOVA and post hoc Scheffe tests, the group mean percentage for each variable was calculated and between groups comparisons were conducted.

4. Results

To arrive at plausible answers to the research questions, the results of written and oral translation tests are presented in turn. To begin with, figure (1) exhibits the mean percentages the learners obtained on the written translation task:

Insert Figure 1 right about here

Graph (1) shows that both monolinguals and bilinguals learners at each level of proficiency performed quite similarly on written translations task. That is to say, L2 & L3 learners at elementary, intermediate and advanced levels obtained rather similar mean percentages. However, in comparing with intermediate and elementary monolinguals and bilinguals, the advanced L2 & L3 obtained the highest mean scores. The results of one-way ANOVA indicted significant differences across the groups (F: 415.58, P: .000). The results of Scheffe post hoc test (appendix I) revealed that

elementary L2 & L3 learners performed significantly different from both the intermediate and advanced bilinguals and monolinguals. Moreover, intermediate L2 & l3 learners performed significantly different from the advanced L2 & L3 groups.

The next piece of data analysis expounds the results of analyzing the L2 and L3 learners' performances on the oral translation task. This piece of evidence would help to specify if the change of modality would cause any difference on the learners' performance on the same test. Respectively, the following graph shows the mean percentages obtained by monolinguals and bilinguals on oral translation task at three levels of proficiency.

Insert Figure 1 right about here

According to graph (2) at the elementary and intermediate levels monolinguals and bilinguals performed similarly. The advanced L2 and L3 learner obtained the same and the highest mean percentages on oral translation task. Significant contrasts were found across the L2 and L3 six groups on the oral translation test (F: 72.44, p: .000). Multiple comparisons of post hoc Scheffe test showed that elementary L2 and L3 performed significantly different from both L2 and L3 intermediate and advanced learners. Moreover, the intermediate monolinguals and bilinguals performed differently from advanced L2 and L3 learners. Comparing the results of ANOVA and post hoc tests on the oral and written translation tasks, it can be claimed that the L2 and L3 learners' mean percentages on written translation task were higher than those on the oral translation (evidenced by graphs 1 and 2). However, in both written and oral translation tasks the same significant differences were located across the six groups. To explain, in both tasks, the elementary L2 & L3 learners performed significantly different from the intermediate and advanced monolinguals and bilinguals. In addition, the intermediate L2 and L3 learners performed significantly different from the advanced monolinguals and bilinguals. To conclude, it can be asserted that the change of modality did not greatly affect the L2 and L3 learners' performance on the same task.

Having presented the overall results of oral translation task, the next table is a display of the L2 and L3 learners' performance on the written translation of yes/no questions which mainly involve the parameter value of auxiliary raising in English interrogative constructions.

Insert Figure 3 right about here

As shown in graph (3) the six groups' overall performance on yes/no questions seem quite good as all participants obtained similar mean percentages. That is to say, the range of mean percentages is 92 to 100 across the elementary, intermediate and advanced monolinguals and bilinguals. To report on any significant differences across the groups, the results of ANOVA on written yes/no questions indicated significant differences across the groups (F: 10.75, P: .000). The results of Scheffe test showed that the elementary bilinguals and monolinguals performed significantly different from both the intermediate and advanced bilinguals and monolinguals.

To Locate any further differences across the groups on yes/no questions which may result from a shift of modality, graph(4) presents the mean percentages obtained by all L2 and L3 participants on the oral translation of yes/no questions.

Insert Figure 4 right about here

As shown by graph (4) the overall performance of L2 and L3 participants on oral translation of yes/no questions are similar and native- like. In other words, the range of mean scores across the elementary, intermediate and advanced L2 and L3 groups is not very great and is close to %100 (85- 100). Yet, the results of one-way ANOVA displayed that the six groups performed significantly different on oral yes/no questions (F: 13.47, P: .000).

Considering the results of the analysis of learners' overall performance on oral and written yes/no questions, it can be inferred that the same significant differences were found across the monolingual and bilingual learners. To rephrase, in responding to written and oral translation of yes/no questions these were the L2 and L3 elementary learners who performed significantly different from intermediate and advanced monolinguals and bilinguals, but no significant difference was found across intermediate and advanced L2 and L3 learners. However, comparing the graphs (3) and (4) shows that the elementary L2 and L3 learners obtained lower mean percentages due to their making more errors in the oral translation of yes/no questions. The analysis of errors on yes/no questions, revealed that the majority of errors committed by the elementary L2 and L3 learners reflected the absence of auxiliary raising (a refection of echo yes/no question in Persian) or they raised the wrong auxiliary (indication of gradual acquisition of auxiliary raising in English).

1) *Omid went to his friend's house?

2) *Mother prepared dinner?

3)*Does he can speak English?

4) *Should have mother prepare lunch?

We now consider the participants' performance on written translation of wh-questions.

Insert Figure 5 right about here

As illustrated by graph (5) the monolingual and bilingual learners at each level of proficiency obtained quite similar mean percentages on the written translation of wh-questions. However, it should be added that the difference between the mean scores of the elementary L2 and L3 learners and those of the intermediate and advanced groups is noticeable. To specify any significant differences across the six groups, the results of conducting ANOVA on written translation of wh-questions indicated significant differences between the performances of the groups (F: 383.09, P: .000). Multiple comparisons of post hoc Scheffe test revealed that the elementary L2 and L3 English learners performed significantly different from the intermediate and advanced L2 and L3 groups. Moreover, a significant contrast was observed between the performances of the intermediate L2 and L3 English learners and the advanced monolinguals and bilinguals.

To inspect the effect of the change of modality on the L2 and L3 learners' performance, the next table presents the mean percentages the L2 and L3 learners obtained on the wh-questions in oral translation task.

Insert Figure 6 right about here

As indicated by graph (6), at each level of proficiency the L2 and L3 learners obtained nearly the same mean percentages; however, at the elementary level the bilingual learners performed slightly higher than their monolingual counterparts. The advanced L2 and L3 learners obtained the same and the highest mean percentages among the six groups. The results of one-way AVOVA indicated significant differences across the L2 and L3 groups on the oral translation of wh- questions (F: 57.69, P: .000). Multiple comparisons of scheffe test indicated that elementary bilinguals and monolinguals performed significantly different from the intermediate and advanced L2 and L3 English learners. Besides, the intermediate L2 and L3 learners performed significantly different from the advanced monolinguals and bilinguals.

Looking back at the results of multiple comparisons of post hoc Scheffe tests on written and oral translation of wh-questions, it can be argued that the same significant differences were found across the groups. That is to say, in both tasks the elementary groups performed differently from the intermediate and advanced groups. Moreover, the intermediate groups performed significantly different from advanced groups. Also, comparing the mean percentages displayed in graphs (5) and (6), it can be observed that the elementary and intermediate L2 and L3 learners obtained higher mean scores on the written translation of wh-questions. This is again can be attributed to their making more errors in the oral translation of the wh-questions. Examining these errors, it was found that a major part of errors was due to inversion for subject questions.

1) *who will/does open the door?

2) * How many tourists did visit the museum?

3) * Who did break the window?

The lower level L2 and L3 learners seemed to over generalize auxiliary raising they more or less acquired in the formation of yes/no or other wh-questions to subject wh-questions.

Examining other types of errors on wh-questions, we categorized them into three classes: Group A included those errors in which the learners failed to reset both of the parameter values operative in English wh-questions.

1) * They visited who?

2) * John is drawing whose picture?

3) * Ali bought what?

Group B consisted of those errors in which the learners failed to reset auxiliary raising but applied wh-movement parameter value.

1) *When usually Hassan studies?

2) *What fatemeh wrote?

3) *Where you bought this novel?

Group C covers those errors in which the learners moved wh-operator together with the main verb or the auxiliary along the main verb to the upper position:

1) *what wrote Fatemeh?

2) *whose car borrowed Ali?

3) *Whose picture is drawing John?

4) *where did go those men?

Analyzing these three types of errors, Group A is likely to reflect the Persian wh-question pattern, a wh-in-situ one. These errors were exclusively committed by the elementary L2 and L3 learners. The errors in type B partly reflect Arabic wh-question pattern in which [+wh] is realized and also the learners' acquisition of wh-movement as a result of having more exposure to English input. Group C errors reflect gradual acquiring of the operator and head movement by monolingual and bilingual learners of English. In short, the types of errors committed by L2 and L3 learners are likely to display the influence of both L1 and L2 settings and analyses other than L1 and L2 (examples 4- 6 in Group C).

5. Discussion

In this study we have sought to test whether the predictions of particular syntactically- based L2A theories, namely, The Failed Functional Feature and Full Access Full Transfer Hypotheses about the impact of previously learned language(s) on the target language provide insights into the acquisition of wh- movement and auxiliary raising operative in English questions by Arabic-Persian bilinguals and Persian monolingual learners at three levels of proficiency.

What we have found was that the results obtained using the written and oral translation tests with monolingual and bilingual learners of English at different levels of proficiency are compatible with FAFT theory but failed to support the FFFH stand point. The main justification for this claim turns to be the overall finding that Arabic-Persian bilinguals, despite their potential superiority, did not significantly outperform their monolingual counterparts.

To be more concrete, in the first place, the overall results of both tasks as well as the results of wh-questions revealed that at each level of proficiency, the bilingual and monolingual learners did not perform significantly different from each other with respect to the resetting of the two parameters of head & operator movements. That is to say, at the elementary level the L3 and L2 learners performed similarly to each other. This finding seems to contradict the prediction of FFH model which claims that L2 learners have access only to those functional features instantiated in their L1. The extension of this claim to L3/Ln situation implies that the L1 steady state partially affects the L3/Ln interlanguage patterns in case the L1 and subsequent languages share the same parameters. It follows that if L1 had an exclusive role in the acquisition of language(s) other than the first, the Arabic-Persian bilinguals would have outperformed their monolingual counterparts as the former enjoys a first language background which is partly similar to English in the formation of wh-questions. As it was explained in section III, Arabic language –similar to English but unlike Persian- is endowed with syntactic wh-movement since an interrogative C has a strong [wh] feature which triggers the wh-phrase to move to spec-CP. Accordingly, the Arab-bilingual learners should experience less difficulty, at least at the outset, in deriving wh-questions by means of operator movement compared with Persian monolinguals whose first language lacks a strong C. However, it was observed that the former did not outperform the latter in the formation of wh-questions at the elementary level. So, this finding seems to be in accordance with the predictions of (FTFA) hypothesis if L2 transfer being hypothesized. L3 learners did not perform significantly higher than L2 learners as their interlanguage grammar seemed to reflect more of the parameter values of their L2, Persian, which is a wh-in situ language.

The same results also showed that at the intermediate and advanced levels the bilingual and monolingual learners performed similarly. And the average group means obtained by the intermediate and advanced L2 and L3 learners were quite high (intermediate L2 and L3 %82; advanced L3 & L2 %95).   These findings highlight two important facts: first, the interlanguage patterns of the L3 learners beyond the initial state are not significantly different from the L2 learners' grammar with respect to the [+wh]. This implies that the L3 learners' grammar at upper levels did not show considerable improvement against L2 learners' grammar suggesting that L3 learners did not benefit much from their distinct language background beyond the elementary level. Second, the high degree of accuracy on both tasks at upper levels indicates the possibility of the restructuring of the interlanguage grammars and their approximation toward the target language grammar. These interpretations appear to attest to the extension of the predictions of Full Transfer Full Access Hypothesis to L3/Ln learning situation which hold that restructuring of the interlanguage grammars is possible beyond the initial stage of L2/Ln learning. Therefore, the L2/Ln learners can eventually reset the target Language values in response to L2/Ln input and due to the accessibility of U.G constraints.

Moreover, the overall results of oral and written translation tasks as well as the wh-questions demonstrated significant differences across the levels of proficiency. That is to say, the elementary L2 and L3 learners performed significantly lower than both the intermediate and advanced groups. Also, the advanced groups performed significantly higher than the intermediate groups. This evidence may suggest that L2 and L3 learners were progressively more accurate as exposure to English increased. In other words, their accuracy on the mentioned properties increased with proficiency and aided the restructuring of L2/L3 grammars. This finding turns to be counter evidence to the claim of FFFH which purports that while the L2/Ln grammar is not impaired, no development is possible in the sense of grammar restructuring (Hawkins and Chan, 1997 cited in White, 2003, p.127).

One marginal point derived from the overall results and the results of wh-questions in the mentioned tasks is that in written translation task, the L2 and L3 learners especially at the elementary level were more accurate than in the oral

translation. This might suggest that in the former the participants had the chance to "focus more on form" and this in turn aided them to respond more accurately.

A further discussion concerns the interpretation of the results of the analysis of yes/no questions which reflects three points among which the high rate of mean accuracy across three levels of proficiency is quite distinct. That is to say, the range of mean percentages obtained by the six groups is from %92 to %100 in written translation and from %85 to %100 in oral translation task. This may give rise to the proposal that even at elementary levels parameter resetting--at least for specific feature values, e.g. auxiliary raising in our case-- is likely to happen even if the target language parameters are absent in the L2/Ln learners' language background(s). Referring to the exposition on the construction of questions in Persian and Arabic, it became clear that in contrast to English, both Persian and Arabic lack auxiliary raising to C as in these languages in the formation of yes/no questions Tense is inflected to the verb; hence, the verb contain a strong feature and C remains empty. In spite of this difference between the native and target languages the L2 and L3 learners across the three levels of proficiency, in particular, at the elementary level were successful in acquiring the property under investigation, that is, the raising of auxiliary from I to C in the formation of yes/no questions. It is important to consider these findings in relation to other L2 studies which have examined the acquisition of L2 features strength where these were different from L1 features strength. The results of the study by Yuan (2001) revealed that French speakers of Chinese with [weak I], regardless of proficiency level, recognized the impossibility of verb raising in Chinese. That is, there was no effect of the strong feature value of French in their interlanguage. This finding may also be in line with the proposal made by Schwartz and Sprouse (1996) which argues that when the L1 grammar is unable to accommodate properties of the L2 input, the learner has recourse to UG options in the L1, including new parameter settings, functional categories and feature values, in order to arrive at an analysis more appropriate to the L2 input, although this may turn out not to be the same analysis as that found in the native-speaker grammar. The resulting interlanguage grammars are UG-constrained.

The second worth-mentioning point derivable from the results of the analysis of yes/no questions is that at each level of proficiency the L3 learners did not perform significantly different from L2 learners. This means that the bilingual learners failed to outperform the monolingual learners, suggesting that the L3 learners were not at an advantage over their L2 counterparts though the former brought the valuable knowledge of two separate grammar systems into the task of learning English as a third language. Another justification is that where native languages are similarly different from the target language in a certain parameter-here the auxiliary raising parameter- similar behaviors are likely to be detected from L2/L3/n learners.

Thirdly, the analysis of yes/no questions revealed that the intermediate and advanced L2 and L3 learners performed significantly higher than the elementary groups. This suggests that as proficiency increased among the L2 and L3 learner, the tendency to leave the head C empty declined, an indication of restructuring of L2/Ln interlanguage grammars.

6. Conclusion

With regard to the role of language background in L3A, the overall results of the study led to the conclusion that bilingualism presents no significant advantage in third language acquisition. Of course, in some cases the bilingual learners performed higher than the monolingual ones but not significantly. This means that the bilingual learners did not take full advantage of their distinct language background as their performance did not outweigh that of the monolingual learners. The L3 learners were presupposed to benefit from their unique language experience at least at initial state in two ways: the privilege of having knowledge of two separate grammar systems and the availability of the parametric similarity between the target language, English, and their first language Arabic. In relation to the acquisition of auxiliary raising, operative in English but absent from Persian and Arabic, the L3 learners assumed to outperform their monolingual counterparts due to the very fact that they already have access to the knowledge of more than one language system which possibly results in 'multi competence' defined by Cook as 'the compound state of a mind with two grammars.' (1992: 12). Cook's notion of 'multi competence' refers to multilingual linguistic competence characterized by the increased metalinguistic awareness, greater creativity and cognitive flexibility and more diversified mental abilities. Yet, the findings identified no facilitative role for this unique knowledge in the enhancement of the L3 learners' performance and acquisition processes with regard to the above-mentioned features. One possible explanation for this neutral role can be the effect of language typology.

It is argued that having a language background which is typologically distant or close to the target language would greatly affect the L2/L3 learners' interlanguage patterns (Cenoze, 2001; Ecke, 2001). Here in the case of Arab-Persian bilinguals, the typological distance in terms of the lack of congruent structures between their first and second languages and English as their third language concerning some of the properties under investigation, seemed to override the positive effect of their unique language experience and caused them not to perform significantly higher than their monolingual counterparts.

Having cross-linguistic effect in perspective, Arab-Persian bilinguals could also benefit from the availability of the [+wh] feature in their first language to enhance their L3 interlanguage grammar with regard to the formation of English simple wh-questions at least at the elementary level. However, the findings of the study made it clear that the elementary L3 &L2 learners' performance were consistent. In other words, the L3 learners did not perform significantly higher than the monolingual learners in spite of the fact that their first language Arabic shared [+wh] with English. This attests to the claim that L3A is different from L2A as the more of L2 was reflected in the interlanguage grammar of the elementary L3 learners than their L1. It also contradicts the claim that transfer is more likely from the first language than those learned later on (Ringbom, 2001). Furthermore, it disconfirms the prediction of FFFH which argues for the resetting of only those parameters instantiated in the L2/Ln learner's L1. Moreover, the findings revealed that at upper levels of proficiency, the bilinguals' performance did not outweigh that of the monolinguals with regards to operator and head movement in English wh-questions. It follows that upper level L3 learners benefited neither from their multi-competence-characterized by increased linguistic awareness, greater creativity and cognitive flexibility-nor from the availability of the [+wh] in their first language Arabic.

To sum up, the findings of the study with respect to language transfer in L3A give rise to the conclusion that the source of cross-linguistic influence in L3A is probably more of the learners' L2 than their L1, evidence in support of the prediction of FTFA hypothesis which argues for the availability of the all sources available to language learner. In other words, in third language acquisition, the first language seems to give its role to the L2 as the latter determines more crucially the shape and speed of third language acquisition. The other logical conclusion is that the bilinguals' unique language experience is less likely to play a facilitative role in the enhancement of the L3 interlanguage grammar.

Regarding the L2 and L3 learners' performance beyond the elementary level, it can be concluded that significant improved performance at this level is likely to be taken as   an indication of the restructuring of the L2/Ln learners' interlanguage and its approximation toward native level performance; the enhancement of the L2 and L3 learners' performance at upper levels confirms the view that changes to initial grammar can take place and final attainment of target language parameters is possible, a claim put forward by the proponents of FTFA hypothesis (Schwartz & Sprouse, 1996).

As a final remark, it is worthwhile to note that although in L2A there is transfer of L1 properties, this transfer is not full. Some other factors like unspecified features of UG might be important in determining the shape of L2 interlanguage on the first exposure to L2 data. The unspecified features of UG are also available in later stages of L2A. The same is true about L3A, with the addition of another factor, the L2 grammatical system. Whenever the features of L2 and L3 are similar, the L3A is accelerated and vice versa.

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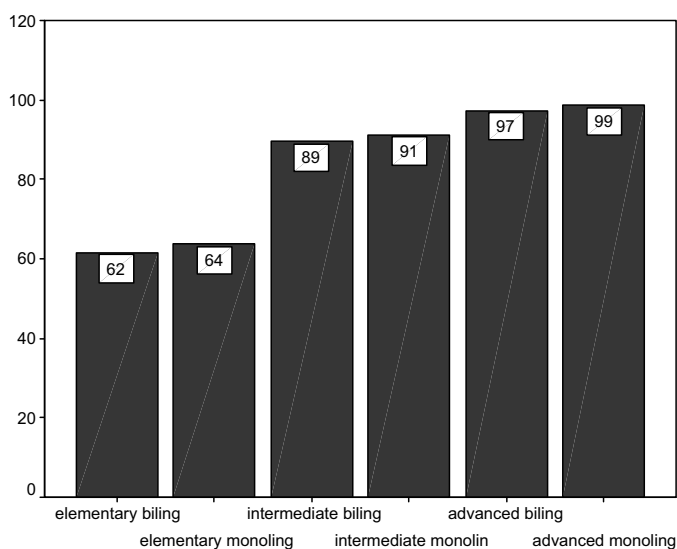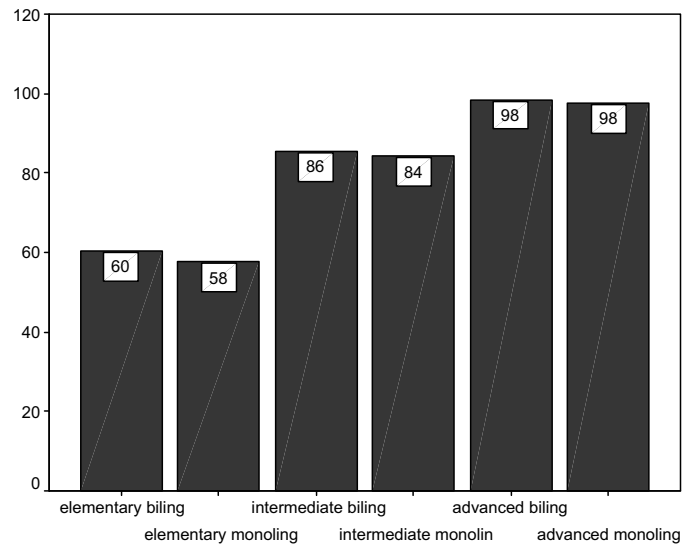Figure 1.Mean percentages of written translation task

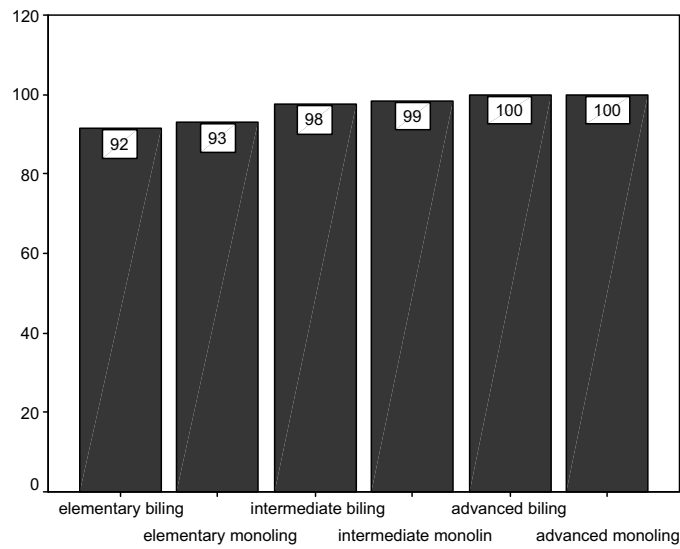Figure 2. Mean percentages of oral translation task

Firgure 3. Written translation task: Mean percentages of yes/no questions.
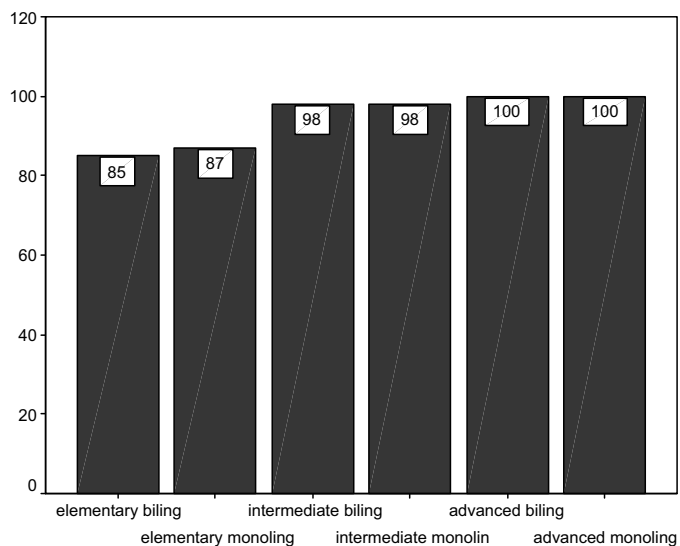
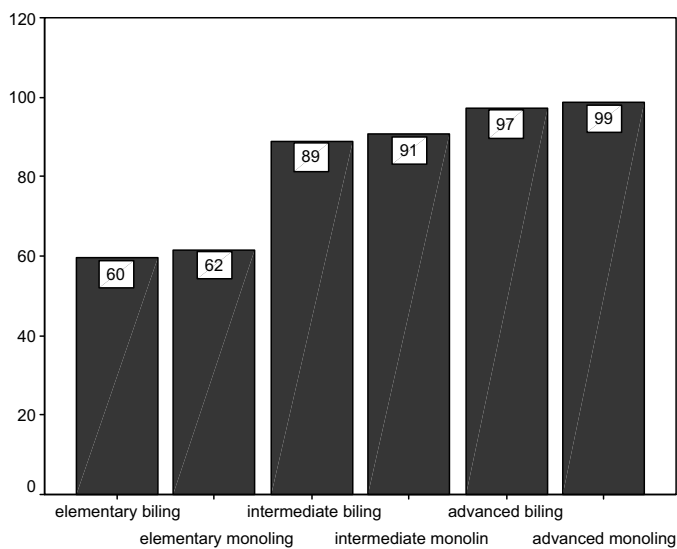Figure 4. Oral translation task: mean percentages of yes/no questions.

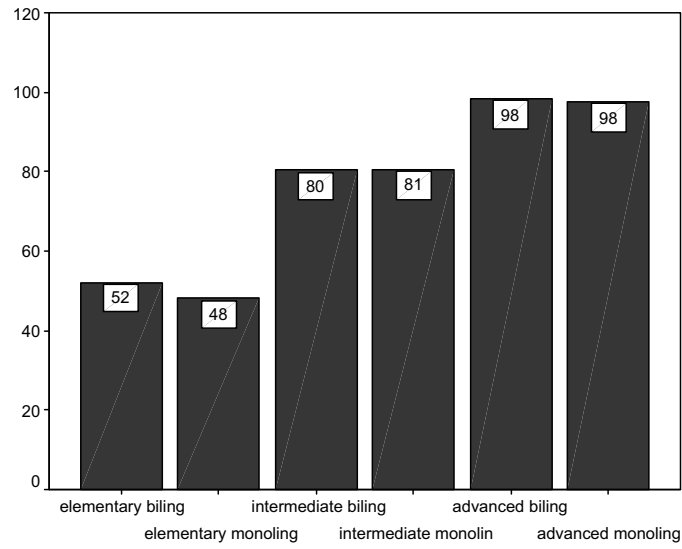Figure 5.Written translation task: Mean percentages of wh-questions.

Figure 6. Oral translation task: the mean percentages of wh-questions

Appendix I

Table 1. One –way ANOVA & Scheffe test on the scores of written translation task

ANOVA

written translation task

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	32473.145	5	6494.629	415.585	.000
Within Groups	2156.617	138	15.628		
Total	34629.762	143			

Multiple Comparisons

Dependent Variable: written translation task
Scheffe

(I) proficiency level	(J) proficiency level	Mean Difference (I-J)	Std. Error	Sig.
elementary biling	elementary monoling	-2.1441	1.0207	.495
	intermediate biling	-27.9392*	1.0207	.000
	intermediate monoling	-29.6146*	1.0207	.000
	advanced biling	-35.8889*	1.3503	.000
	advanced monoling	-37.1476*	1.3503	.000
elementary monoling	elementary biling	2.1441	1.0207	.495
	intermediate biling	-25.7951*	1.0207	.000
	intermediate monoling	-27.4705*	1.0207	.000
	advanced biling	-33.7448*	1.3503	.000
	advanced monoling	-35.0035*	1.3503	.000
intermediate biling	elementary biling	27.9392*	1.0207	.000
	elementary monoling	25.7951*	1.0207	.000
	intermediate monoling	-1.6753	1.0207	.747
	advanced biling	-7.9497*	1.3503	.000
	advanced monoling	-9.2083*	1.3503	.000
intermediate monoling	elementary biling	29.6146*	1.0207	.000
	elementary monoling	27.4705*	1.0207	.000
	intermediate biling	1.6753	1.0207	.747
	advanced biling	-6.2743*	1.3503	.001
	advanced monoling	-7.5330*	1.3503	.000
advanced biling	elementary biling	35.8889*	1.3503	.000
	elementary monoling	33.7448*	1.3503	.000
	intermediate biling	7.9497*	1.3503	.000
	intermediate monoling	6.2743*	1.3503	.001
	advanced monoling	-1.2587	1.6139	.987
advanced monoling	elementary biling	37.1476*	1.3503	.000
	elementary monoling	35.0035*	1.3503	.000
	intermediate biling	9.2083*	1.3503	.000
	intermediate monoling	7.5330*	1.3503	.000
	advanced biling	1.2587	1.6139	.987

*. The mean difference is significant at the .05 level.

Table 2. One way ANOVA and Scheffe test on the scores of oral translation task

ANOVA

oral translation task.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5064.169	5	1012.834	72.441	.000
Within Groups	335.557	24	13.982		
Total	5399.727	29			

Multiple Comparisons

Dependent Variable: oral translation task.
Scheffe

(I) proficiency level	(J) proficiency level	Mean Difference (I-J)	Std. Error	Sig.
elementary biling	elementary monoling	1.5313	2.3649	.994
	intermediate biling	-20.6146*	2.3649	.000
	intermediate monoling	-20.1667*	2.3649	.000
	advanced biling	-30.5729*	2.3649	.000
	advanced monoling	-30.1823*	2.3649	.000
elementary monoling	elementary biling	-1.5313	2.3649	.994
	intermediate biling	-22.1458*	2.3649	.000
	intermediate monoling	-21.6979*	2.3649	.000
	advanced biling	-32.1042*	2.3649	.000
	advanced monoling	-31.7135*	2.3649	.000
intermediate biling	elementary biling	20.6146*	2.3649	.000
	elementary monoling	22.1458*	2.3649	.000
	intermediate monoling	.4479	2.3649	1.000
	advanced biling	-9.9583*	2.3649	.015
	advanced monoling	-9.5677*	2.3649	.022
intermediate monoling	elementary biling	20.1667*	2.3649	.000
	elementary monoling	21.6979*	2.3649	.000
	intermediate biling	-.4479	2.3649	1.000
	advanced biling	-10.4063*	2.3649	.010
	advanced monoling	-10.0156*	2.3649	.015
advanced biling	elementary biling	30.5729*	2.3649	.000
	elementary monoling	32.1042*	2.3649	.000
	intermediate biling	9.9583*	2.3649	.015
	intermediate monoling	10.4063*	2.3649	.010
	advanced monoling	.3906	2.3649	1.000
advanced monoling	elementary biling	30.1823*	2.3649	.000
	elementary monoling	31.7135*	2.3649	.000
	intermediate biling	9.5677*	2.3649	.022
	intermediate monoling	10.0156*	2.3649	.015
	advanced biling	-.3906	2.3649	1.000

*. The mean difference is significant at the .05 level.

Table 3.One-way ANOVA Scheffe test results of written yes/no questions

ANOVA

written translation of yes/no questions

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1532.222	5	306.444	10.756	.000
Within Groups	3931.667	138	28.490		
Total	5463.889	143			

Multiple Comparisons

Dependent Variable: written translation of yes/no questions

Scheffe

(I) proficiency level	(J) proficiency level	Mean Difference (I-J)	Std. Error	Sig.
elementary biling	elementary monoling	-1.5000	1.3782	.946
	intermediate biling	-6.1667*	1.3782	.002
	intermediate monoling	-7.0000*	1.3782	.000
	advanced biling	-8.5000*	1.8231	.001
	advanced monoling	-8.5000*	1.8231	.001
elementary monoling	elementary biling	1.5000	1.3782	.946
	intermediate biling	-4.6667*	1.3782	.049
	intermediate monoling	-5.5000*	1.3782	.009
	advanced biling	-7.0000*	1.8231	.015
	advanced monoling	-7.0000*	1.8231	.015
intermediate biling	elementary biling	6.1667*	1.3782	.002
	elementary monoling	4.6667*	1.3782	.049
	intermediate monoling	-.8333	1.3782	.996
	advanced biling	-2.3333	1.8231	.896
	advanced monoling	-2.3333	1.8231	.896
intermediate monoling	elementary biling	7.0000*	1.3782	.000
	elementary monoling	5.5000*	1.3782	.009
	intermediate biling	.8333	1.3782	.996
	advanced biling	-1.5000	1.8231	.984
	advanced monoling	-1.5000	1.8231	.984
advanced biling	elementary biling	8.5000*	1.8231	.001
	elementary monoling	7.0000*	1.8231	.015
	intermediate biling	2.3333	1.8231	.896
	intermediate monoling	1.5000	1.8231	.984
	advanced monoling	.0000	2.1791	1.000
advanced monoling	elementary biling	8.5000*	1.8231	.001
	elementary monoling	7.0000*	1.8231	.015
	intermediate biling	2.3333	1.8231	.896
	intermediate monoling	1.5000	1.8231	.984
	advanced biling	.0000	2.1791	1.000

*. The mean difference is significant at the .05 level.

Table 4. One way ANOVA and Scheffe test on the scores of yes/no questions in oral translation task

ANOVA

oral translation of yes/no questions

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1206.667	5	241.333	13.470	.000
Within Groups	430.000	24	17.917		
Total	1636.667	29			

Multiple Comparisons

Dependent Variable: oral translation of yes/no questions

Scheffe

(I) proficiency level	(J) proficiency level	Mean Difference (I-J)	Std. Error	Sig.
elementary biling	elementary monoling	-1.0000	2.6771	1.000
	intermediate biling	-13.0000*	2.6771	.004
	intermediate monoling	-12.0000*	2.6771	.009
	advanced biling	-15.0000*	2.6771	.001
	advanced monoling	-15.0000*	2.6771	.001
elementary monoling	elementary biling	1.0000	2.6771	1.000
	intermediate biling	-12.0000*	2.6771	.009
	intermediate monoling	-11.0000*	2.6771	.019
	advanced biling	-14.0000*	2.6771	.002
	advanced monoling	-14.0000*	2.6771	.002
intermediate biling	elementary biling	13.0000*	2.6771	.004
	elementary monoling	12.0000*	2.6771	.009
	intermediate monoling	1.0000	2.6771	1.000
	advanced biling	-2.0000	2.6771	.989
	advanced monoling	-2.0000	2.6771	.989
intermediate monoling	elementary biling	12.0000*	2.6771	.009
	elementary monoling	11.0000*	2.6771	.019
	intermediate biling	-1.0000	2.6771	1.000
	advanced biling	-3.0000	2.6771	.935
	advanced monoling	-3.0000	2.6771	.935
advanced biling	elementary biling	15.0000*	2.6771	.001
	elementary monoling	14.0000*	2.6771	.002
	intermediate biling	2.0000	2.6771	.989
	intermediate monoling	3.0000	2.6771	.935
	advanced monoling	.0000	2.6771	1.000
advanced monoling	elementary biling	15.0000*	2.6771	.001
	elementary monoling	14.0000*	2.6771	.002
	intermediate biling	2.0000	2.6771	.989
	intermediate monoling	3.0000	2.6771	.935
	advanced biling	.0000	2.6771	1.000

*. The mean difference is significant at the .05 level.

Table 5. One-way ANOVA & Scheffe results on the scores of wh-questions in written translation task

ANOVA

written translation of wh questions.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	35957.775	5	7191.555	383.090	.000
Within Groups	2590.605	138	18.773		
Total	38548.380	143			

Multiple Comparisons

Dependent Variable: written translation of wh questions.

Scheffe

(I) proficiency level	(J) proficiency level	Mean Difference (I-J)	Std. Error	Sig.
elementary biling	elementary monoling	-2.1870	1.1187	.577
	intermediate biling	-29.3907*	1.1187	.000
	intermediate monoling	-31.1222*	1.1187	.000
	advanced biling	-37.7148*	1.4799	.000
	advanced monoling	-39.0574*	1.4799	.000
elementary monoling	elementary biling	2.1870	1.1187	.577
	intermediate biling	-27.2037*	1.1187	.000
	intermediate monoling	-28.9352*	1.1187	.000
	advanced biling	-35.5278*	1.4799	.000
	advanced monoling	-36.8704*	1.4799	.000
intermediate biling	elementary biling	29.3907*	1.1187	.000
	elementary monoling	27.2037*	1.1187	.000
	intermediate monoling	-1.7315	1.1187	.791
	advanced biling	-8.3241*	1.4799	.000
	advanced monoling	-9.6667*	1.4799	.000
intermediate monoling	elementary biling	31.1222*	1.1187	.000
	elementary monoling	28.9352*	1.1187	.000
	intermediate biling	1.7315	1.1187	.791
	advanced biling	-6.5926*	1.4799	.002
	advanced monoling	-7.9352*	1.4799	.000
advanced biling	elementary biling	37.7148*	1.4799	.000
	elementary monoling	35.5278*	1.4799	.000
	intermediate biling	8.3241*	1.4799	.000
	intermediate monoling	6.5926*	1.4799	.002
	advanced monoling	-1.3426	1.7688	.989
advanced monoling	elementary biling	39.0574*	1.4799	.000
	elementary monoling	36.8704*	1.4799	.000
	intermediate biling	9.6667*	1.4799	.000
	intermediate monoling	7.9352*	1.4799	.000
	advanced biling	1.3426	1.7688	.989

*. The mean difference is significant at the .05 level.

Table 6. One way ANOVA and Scheffe test on the scores of wh-questions in oral translation task

ANOVA

oral translation of wh-questions.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11735.254	5	2347.051	57.697	.000
Within Groups	976.291	24	40.679		
Total	12711.546	29			

Multiple Comparisons

Dependent Variable: oral translation of wh-questions.

Scheffe

(I) proficiency level	(J) proficiency level	Mean Difference (I-J)	Std. Error	Sig.
elementary biling	elementary monoling	4.0625	4.0338	.958
	intermediate biling	-28.2292*	4.0338	.000
	intermediate monoling	-28.3333*	4.0338	.000
	advanced biling	-46.1458*	4.0338	.000
	advanced monoling	-45.3646*	4.0338	.000
elementary monoling	elementary biling	-4.0625	4.0338	.958
	intermediate biling	-32.2917*	4.0338	.000
	intermediate monoling	-32.3958*	4.0338	.000
	advanced biling	-50.2083*	4.0338	.000
	advanced monoling	-49.4271*	4.0338	.000
intermediate biling	elementary biling	28.2292*	4.0338	.000
	elementary monoling	32.2917*	4.0338	.000
	intermediate monoling	-.1042	4.0338	1.000
	advanced biling	-17.9167*	4.0338	.009
	advanced monoling	-17.1354*	4.0338	.014
intermediate monoling	elementary biling	28.3333*	4.0338	.000
	elementary monoling	32.3958*	4.0338	.000
	intermediate biling	.1042	4.0338	1.000
	advanced biling	-17.8125*	4.0338	.010
	advanced monoling	-17.0313*	4.0338	.015
advanced biling	elementary biling	46.1458*	4.0338	.000
	elementary monoling	50.2083*	4.0338	.000
	intermediate biling	17.9167*	4.0338	.009
	intermediate monoling	17.8125*	4.0338	.010
	advanced monoling	.7813	4.0338	1.000
advanced monoling	elementary biling	45.3646*	4.0338	.000
	elementary monoling	49.4271*	4.0338	.000
	intermediate biling	17.1354*	4.0338	.014
	intermediate monoling	17.0313*	4.0338	.015
	advanced biling	-.7813	4.0338	1.000

*. The mean difference is significant at the .05 level.

Appendix II.

A. Translation task: Sample items

Yes/no questions

1. آیا پروین تکالیفش را انجام داد ؟ هل أدَّت پروین تکالیفها؟

Did Parvin do her homework?

2. آیا او در کارخانه کار می کند؟ هل یَعمَلُ في المَصنَع ؟

Does he work in a factory?

Subject inanimate

3 . کی به دانشکده رفت؟ مَن ذَهَبَ الی الکلیته؟who went to college?

4.کی شیشه را شکست؟ مَن کَسَرَ الزُجاج؟ who broke the window?

Direct object animate

5. حسین به کی تلفن خواهد کرد ؟ مَن یتلفن حسین؟؟ whom will Hosein call

Indirect object

6.محمد به چه کسی نامه خواهد نوشت؟ من یکاتبه محمد؟

To whom will Mohammad write a letter?

7 .این لباس را برای چه کسی خریدی؟ لمن اشتریت هذا الثوب؟

For whom did you buy this dress?

Genitive object

8. جان تصویر چه کسی را می کشد؟ صورة٬ مَن یَرسُم جان؟Whose picture does John draw

How

9.. خانم شریف انگلیسی را چگونه تدریس میکند؟ کیف تدرّس السیدة شریف الانکیزیة ؟

How does Mrs. Sharif teach English?

Oblique object

10. او راجع به چی صحبت خواهد کرد؟ هو عما یتحدث؟   what will he talk about?

11. او منتظر چه کسی است؟ من ینتظرُه؟   whom is he   waiting for?