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# Match or Mismatch of the Head Parameters and Comprehension of EFL Learners

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***Abstract*—The present study examines the impacts of match or mismatch of the head parameters of some languages on listening comprehension of English as a foreign language in Iran. It is a longitudinal survey of EFL learners at some universities of Iran from 2011 to 2012. It compares 20 Mazandarani learners of English with that of 20 Persian learners of English. Since English is mostly a head initial language, and Persian and Mazandarani head final languages, and there are fewer matches between English and Mazandarani parameters than that of English and Persian, then Mazandarani learners of English are expected to have more difficulty as far as listening comprehension of English is taken into account. The findings show that the match of the parameters facilitates the L2 listening process, whereas its mismatch hinders it.**

***Index Terms*—L1 and L2 acquisition, principle and parameter theory, head parameter**

## I. Introduction

The fact that Persian is mostly a head final language (Maleki, 2006; Soheili, 1989; Rahmani, 2011), Mazandarani[1] mostly a final language (Rahmani, 2011) and English mostly a head initial language (Radford, 2006), may be a culprit in the weakness of listening comprehension of Mazandarani learners of English as a foreign language in comparison to that of Persian learners of English.

**Principles and Parameters in First Language Acquisition**

Chomsky (1972 & 1986) believes that the process of language acquisition is regarded as the access of the limited input that a child hears, into a LAD and through processing inside the LAD, creative grammar is produced which later is called as principle and parameter theory (cited in Rahmani & Abdolmanafi, 2012).

Therefore, the principal task a child confronts in acquiring his/her mother tongue is to make a grammar of the language. As Chomsky (1986) states, the child's LAD integrates a theory of Universal Grammar incorporating:

- a set of universal *principles* of grammatical structure that are supposed to be constant across languages, and
- a set of structural *parameters* that impose rigid restraints on the range of structural variation admit natural languages.

Therefore, since the child is not forced to acquire the universal principles which belong to the genetic endowment, structural language acquisition is primarily restricted to what is called *parameter-setting.* According to Radford (1990), it has been observed that children even as young as 18 months old in the acquisition of English as L1 appear to set the head parameter at its proper setting (*head-first)* from the very initial multiword utterances they develop. Greenberg (1963) has studied the consistency of the relative position of a head and its complement at phrase level. Besides, the position of a head and its complement within a phrase at a given level of projection as discussed in Chomsky (1972), is observed to be ordered across various categories in a language. Furthermore, Chomsky (1981) proposes that the relative position of heads and complements for entire phrases requires to be set at least one time in a given language. A single generalization (a or b) suffices based on what follows instead of a long list of individual rules determining the position of the head in each phrase type.

a) Heads are *last* in the phrase.

b) Heads are *first* in the phrase.

Different types of lexical heads namely nouns, verbs, prepositions and adjectives based on Chomsky (1981), should be grouped under a single entry called X. These lexical heads are grouped under XP when they are combined with their complements (Y or Z).

[1] The name Mazandarani derives from the name of the historical region of Mazandaran in the North of Iran.

According to Atkinson (1992), the principles of X-bar theory, together with thematic properties of lexical items, decide the type of possible D-structures in a grammar once the relevant parameter governing directionality is fixed. Therefore, X-bar principles are expected to constrain the child's grammatical system from their early. Radford's (1990) observation concludes that children appear to know English is a head-first language. The information gathered by Radford (1990) from a twenty-month boy manifest the child's ordered use of verbs and prepositions ahead of their complements.

(1) a. *Touch* heads. *Cuddle* book. *Want* book. *Want* malteser. *Open* door. *Want* chocolate. *Bang* bottom. *See* cats. *Sit* down.

(1) b. *On* mummy. *To* lady. *Without* shoe. *With* potty. *In* keyhole. *In* park. *On* carpet. *On* box. *With* crayons. *To* daddy.

The *principles and parameters* model of acquisition provides, to some extent, an answer to the question of why children in such a quich and error-free fashion acquire the position of heads and complements. The *principles and parameters* model shows that acquiring this dimension of word order includes a relatively easy task of setting the binary parameter given by UG at its suitable value on the basis of minimal linguistic experience. The child automatically knows that all heads in English are commonly positioned before their complements when he starts to break down a sentence produced by adults, like *tell daddy*, and understands that it has in itself a verb phrase including the head verb *tell* and its complement *daddy*

Consequently, in a new born baby's mind, language acquisition is at its first state, called the Initial Zero State (S0). Hence, language acquisition goes on till the Steady State (Ss) where language development is partly perfected. Along with this, one might conclude that a child acquires his/her language according to the following formula: S0–S1–S2→Ss.

According to Cook and Newson (2007), depending on the input related to the language by activating the principles and parameters of UG, at the initial state, a child sets the parameters on his mind; for example, the child should start with one of the possible values of this parameter , that is head-initial or head-final considering the head parameter (cited in Rahmani & Abdolmanafi, 2012).

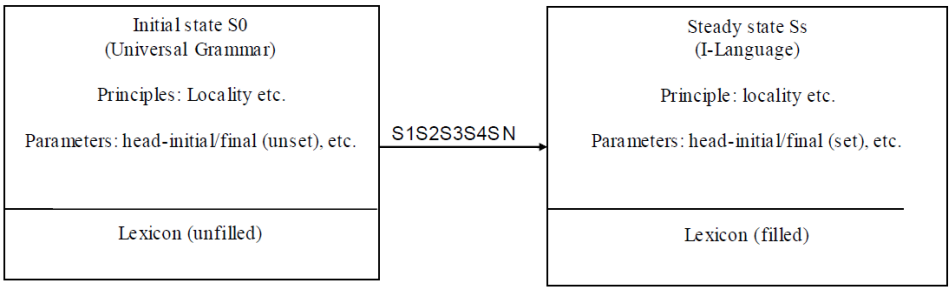



Figure 1: The language faculty from zero to final states (Cook & Newson, 2007, p. 50)

## II. Review of the Related Literature

**Parameter-setting Acquisition and Positive Evidence**

Parameter setting might therefore begin in a neutral position in which any setting is potential and or begin from a particular value (the unmarked setting) and requires specific evidence to adopt the other setting (the marked setting) (Cook & Newson, 1996, cited in Rahmani & Abdolmanafi, 2012).

How children are able to choose the appropriate setting for a given parameter is a question posed by the parameter-setting model of acquisition. There are two types of evidence which is expected to be attainable for the language learner, namely positive and negative evidence. According to Radford (2006), if children's speech input is made up of structures in which heads come before their complements like what we have in English, then this provides them with positive evidence and by this positive evidence they are able to set the Head-position Parameter properly (cited in Rahmani & Abdolmanafi, 2012).

**Parameter-setting by Negative Evidence**

We have two kinds of negative evidence which causes children to set their appropriate parameter of mother tongue; they are direct and indirect evidences. Direct negative evidence normally comes from the correction of children's errors and indirect negative evidence occurs when for example, a child's experience includes no examples of structures in which complements follow their heads (like Mazandarani language), and then, he infers that a second language like English is not a head last language and so differs from his mother tongue language (Radford, 2006).

**Principles and Parameters in Second Language Acquisition**

Unlike a child who acquires L1 at the initial state, the adult who learns L2 based on Rahmani and Abdolmanafi (2012) would be in a dissimilar position, since the adult is already equipped with the knowledge of L1 containing the universal grammar of principles and parameters of his first language. Consequently, the initial state of SLA is shown by (Si) which actually is formed by:

Si (initial state of L2) = (S0 + Ss)

It is good to note that in L2 there is no steady state like L1, rather, there is a Terminal State (St) which is different from person to person.

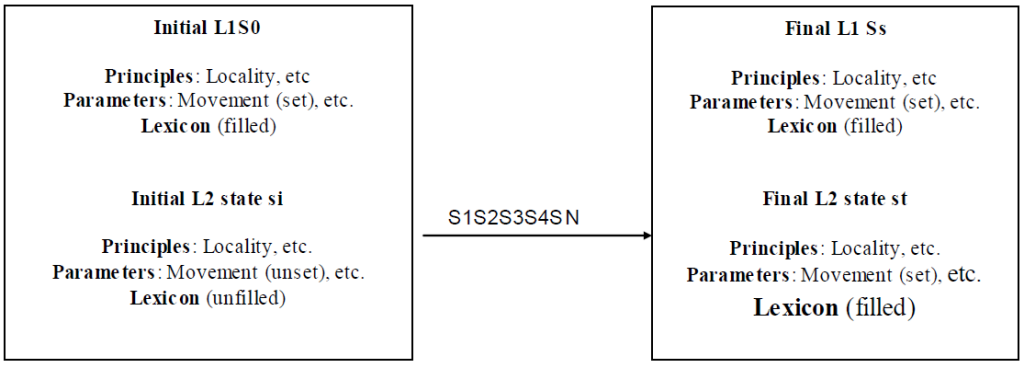



Figure 2: The language faculty from initial to final states (Cook & Newson, 2007, p. 230)

**Previous Studies**

Flynn (1988) studied three groups of adults learning ESL, 51 native speakers of Spanish, 53 native speakers of Japanese and 60 native speakers of Chinese, in his study, it was reported that, whereas English and Spanish are head initial and Japanese and Chinese are head-final, so the Spanish had less difficulty in imitation task of some adverbial clauses of English. She also, draws the conclusion that the Chinese and Japanese learners replicate an early pattern of L1, whereas the Spanish speakers have bypassed early stages of the grammatical developments directly applying grammatical principles from L1 to L2. In other words, where there is a match in parametric value between L1 and L2, there is no need to assign a new value to the parameter. Conversely, where there is a mis-match between the two parameters, a new value must be assigned to the parameter which results in having more difficulties in using the foreign languages.

Maleki (2006) according to a research on 75 Turkish learners of English and 75 Persian learners of English, concludes that the match of the parameters eases the second language reading process, while its mismatch hampers it and in that way decelerate down reading speed and lessens reading comprehension rate. In contrast, Newmeyer (2004) argues that the notion of parameter of universal grammar has no role to play in accounting for cross-linguistic differences in syntax, and that, instead, "language-particular differences are captured by differences in language-particular rules". He tries to show that parameter approaches have failed to live up to their promise and that " the hopeful vision of UG as providing a small number of principles each admitting of a small number of parameter setting is simply not workable" (Newmeyer, 2004, pp.181-185).

This study is aimed at investigating the parametric directionality in head parameters of English, Persian and Mazandarani languages to see their common and different characteristics to investigate whether the match or mismatch between parameters of mother tongue and English has any impact on better or worse listening comprehension of English. Hence subjects' listening comprehension of English is measured based on the parametric directionality of head parameters between first languages of Persian and Mazandarani with the foreign language of English in Iran. And it is also indicated that the match of the parameters facilitate the L2 listening processes while its mismatch hinders it and thereby decreases the listening comprehension of English as a foreign language.

**Hypotheses**

The present study tries to empirically find answers to the following hypotheses:

There is a significant difference between the impact of match and mismatch of the head parameters of one's *mother tongue* on his foreign language.

There is a significant difference between the impact of match and mismatch of the head parameters of one's *first language* on his foreign language.

## III. METHODOLOGY

### *A. Participants*

A longitudinal survey of EFL learners was carried out at two universities in the East and North of Iran named Birjand and Mazandaran University during 2011 and 2012. Twenty Persian learners of English are compared with twenty Mazandarani learners of English to examine the impact of match or mis-match between their mother tongue and foreign language head parameters on listening comprehension of English texts.

The subjects are within the age range of 18-23 and are kept similar in terms of linguistic background, socio-economic status, motivation, attitude and educational (previous exposure to English language) orientation. This study is done by

observations, questionnaire, library studies and then syntactic analysis of phrase structures in English, Persian and Mazandarani languages on the perspective of X- bar Theory[1].

*B. Instruments*

*Language Proficiency Test*

The NELSON test was used in order to have two homogenized groups consisting of four parts: Cloze tests, structure, vocabulary, and pronunciation and the time allotted for the test was 35 minutes.

*Gardner's Questionnaire (1985)*

This is a Likert-scale questionnaire on motivation which was developed by Gardner (1985).

*C. Procedures*

To accomplish the purpose of the study, through administering NELSON English language test, series 300B, over the first session a homogeneous group was identified. Then, in order to have homogenous learners in terms of motivation, the investigator administered the motivation questionnaire to the learners over the second session (next day). It is to be noted that in this study both male and female students participated. The administration of the two tests (proficiency test, SES) took 60 minutes, which were completed in two separate days.

The subjects heard some English dialogues in which there were different kinds of every lexical phrase, for example in *many people* the head noun *people* is positioned after its complement *many* and in *place with new customs* the head noun *place* is positioned before its complement *with new customs.*

Considering the head parameters in the aural text of English with those in Persian and Mazandarani, we would expect that L1 speakers of Persian and Mazandarani use the L1 values of the head parameters of their mother tongues and consult the abstract dominant configuration in listening English as a foreign language. Because there is mismatch between the head parameters of English with Persian and Mazandarani, it seems to act as a hindering factor in listening English text.

## IV. Discussion

**NPs in the understudied languages:**

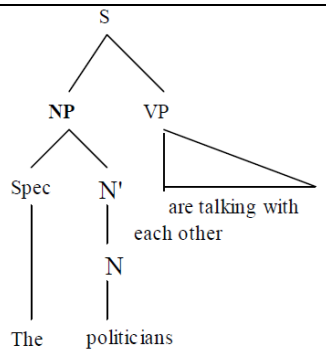
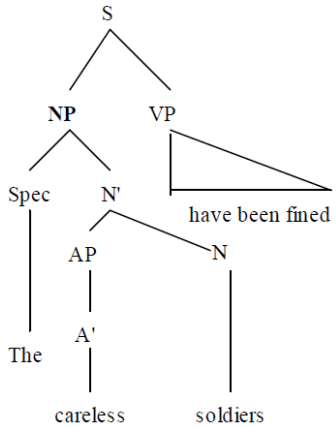
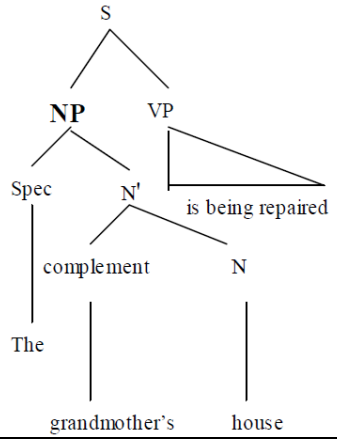
**Complements that precede their head nouns**

According to Rahmani and Alizadeh (2012), there are three complements which precede their head nouns in English NPs; they are: Specifiers, Attributive adjectives and Nominal dependents. They are positioned before head nouns in English and are ordered based on the phrase structure rules of:

1. $X'' \rightarrow$ *Spec X',*
2. $X' \rightarrow$ *Complement X*

[1] It should be added that since there has been no syntactic book of Mazandarani especially regarding lexical/functional Phrase of X', then intuitions of five people aged 55, 47, 46, 46 and 32 are taken into account.

TABLE 1:
THE COMPLEMENTS WHICH PRECEDE THEIR HEAD NOUNS IN ENGLISH

| The complements which precede their head noun in English: | complement | Head noun | X-bar structure of NPs |
|---|---|---|---|
| ***1- specifiers***<br><br>e.g., ***The*** politicians are talking with each other. | The | Politicians |  |
| ***2- attributive adjectives***<br><br>e.g., The ***careless*** soldiers have been fined. | careless | soldiers |  |
| ***3- nominal dependents***<br>e.g., My ***grandmother's*** house is being repaired. | grandmother's | house |  |

**Complements that follow their head nouns**

There are five complements based on Rahmani and Alizadeh (2012), which follow their head nouns in English NPs, which are: Appositive phrases, Participial phrases, Gerund phrases, Propositional phrases and Adjective clauses. They are positioned after their head nouns based on the phrase structure rules of: 1- $X'' \rightarrow Spec\ X'$ & 2- $X' \rightarrow X\ complement$

TABLE 2:
THE COMPLEMENTS WHICH FOLLOW THEIR HEAD NOUN IN ENGLISH

| The complements which follow their head noun in English: | Head noun | complement |
|---|---|---|
| 1- appositive phrases<br>e.g., Mr. Harris, *in a hurry to get home*, took a taxi from the airport. | Mr. Harris | in a hurry to get home |
| 2- participial phrases<br>e.g., The girl *talking to the teacher* is very intelligent. | The girl | talking to the teacher |
| 3- gerund phrases<br>e.g., Her cleaning *the house everyday* is not necessary. | cleaning | the house everyday |
| 4- adjective clauses<br>e.g., Here is a book *which describes animals*. | book | which describes animals |
| 5- Prepositional phrases<br>e.g., reason of the war | reason | Of the war |

*(Based on Marcella, 1972: chapters 3, 5, 6 & 10)*

So, in English, more NPs, are ordered based on the phrase structure rule of *X′ → X complement* and hence, their NPs are considered head-initial (Rahmani & Alizadeh, 2012).

**Persian NPs:**

**Complements that precede their head nouns**

There are four complements in Persian based on Rahmani and Alizadeh (2012), which precede their head nouns, they are: Specifiers, interrogative dependents, numeral dependents, and exclamatory dependents**;** they are ordered on the basis of the phrase structure rules of: *X″ → Spec X &* **2-** *X′ Complement X.*

TABLE 3:
THE COMPLEMENTS WHICH PRECEDE THEIR HEAD NOUNS IN PERSIAN

| The complements which precede their head noun in Persian: | complement | Head noun |
|---|---|---|
| 1- specifiers (determiners):<br>e.g., In márd doste mán ást.<br>The man friend my is | in | márd |
| 2- interrogative dependents:<br>e.g., kodam ketab mâle tost?<br>Which book is yours? | kodam | ketab |
| 3- numeral dependents:<br>e.g., se márd zakhmi shodand.<br>Three men injured were | se | márd |
| 4- exclamatory dependents:<br>e.g., âjab havaye khobi!<br>What a weather nice | âjab | havaee |

**Complements that follow their head nouns**

Since more NPs are ordered on the basis of the phrase structure rule of *X′ → X complement* than that of *X′ → Complement X* in Persian, hence, Persian NPs is considered head-initial.

Based on Rahmani and Alizadeh (2012), there are also, five complements which follow their head nouns, such as: Attributive adjectives, nominal dependents, appositive phrases, propositional phrases, and adjective clauses (sentential clauses); they are ordered on the basis of:

*X″ → Spec X′* & 2- *X′ → X complement.*

TABLE 4:
THE COMPLEMENTS WHICH FOLLOW THEIR HEAD NOUN IN PERSIAN

| The complements following their head noun in Persian: | Head noun | complement |
|---|---|---|
| 1- attributive adjectives:<br>e.g. ketabhaye khob va sodmand …<br>books good and fruitful | ketabhaye | khob va sodmand |
| 2- nominal dependents:<br>e.g., payambare eslam farmodand ke …<br>Prophet Islam said that … | payambare | eslam |
| 3- appositive phrases:<br>e.g., Golestan, neveshteye sady, ….<br>Golestan written by Sady … | Golestan | neveshteye Sady |
| 4- prepositional phrases:<br>e.g., ketab darbareye naghde tarihk, ….<br>Book about critique history | ketab | Darbareye naghde tarihk |
| 5- adjective clauses (sentential clauses)<br>e.g., ketabi ke Ali nevesht, …<br>book which Ali wrote | ketabi | ke Ali nevesht |

*(Based on Bateni, 2008: chapter 7 & Gholamalizade, 2007: chapter 4)*

**Mazandarani NPs:**

Noun phrase in Mazandarani is head-final, because six complements precede their head nouns in this language and just three complements follow them.

**Complements that precede their head nouns**

The complements which precede their head nouns in Mazandarani are specifiers, interrogative dependents, numeral dependents, exclamatory dependents, attributive adjectives, and nominal dependents. They are ordered on the basis of the phrase structure rule of:

*1. X″ → Spec X′*

*2. X′ → Complement X*

TABLE 5:
THE COMPLEMENTS WHICH PRECEDE THEIR HEAD NOUNS IN MAZANDARANI

| The complements which precede their head noun in Mazandarani: | Complement | Head noun |
|---|---|---|
| 1- specifiers (determiners):<br>e.g., inta márdi | inta<br>this | márdi<br>man |
| 2- interrogative dependents:<br>e.g., kemin ketab teshe? | kemin<br>which | ketab<br>book |
| 3- numeral dependents:<br>e.g., se márdi zakhmi baine. | se<br>three | márdi<br>men |
| 4- exclamatory dependents:<br>e.g., ájeb hevaee hasse | ájeb | hevaee |
| 5- attributive adjectives:<br>e.g., kechike váche | kechik<br>little | váche<br>child |
| 6- nominal dependents:<br>e.g., eslame peighamber | eslam<br>Islam | peighamber<br>Prophet |

**Complements that follow their head nouns**

The complements which follow their head nouns in Mazandarani are: appositive phrases, propositional phrases, and adjective clauses or sentential clauses. Because most of the NPs complements in Mazandarani are ordered on the basis of *X′ → Complement X* than *X′ → X complement,* then its NP is considered head-final.

TABLE 6:
THE COMPLEMENTS WHICH FOLLOW THEIR HEAD NOUN IN MAZANDARANI

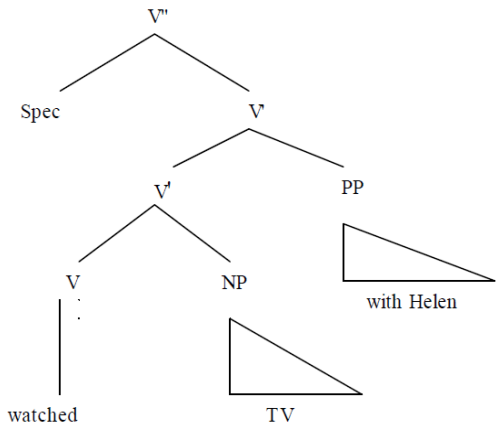
| The complements following their head noun in Mazandarani: | Head noun | Complement |
|---|---|---|
| 1- appositive phrases:<br>e.g., Golestan, sáádiye bánvesht | Golestan<br>Golestan | Sáádiye bánvesht<br>Saadi's work |
| 2- adjective clauses (sentential clauses):<br>e.g., ketabi ke ve banvishte, … | Ketabi<br>book | ke ve banvishte<br>which he wrote |
| 3- postpositional phrases:<br>e.g., telash zendegiye vesse… | Telash<br>effort | zendegiye vesse<br>life for |

Accordingly, in most of the cases, in the NPs of English and Persian, the heads appear on the left of the complements and conversely in Mazandarani, most of the head nouns appear on the right of the complements.

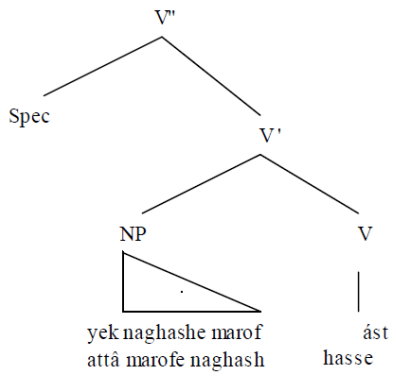
**VPs in English, Persian and Mazandarani:**

In the VP of English, based on Rahmani and Alizadeh (2012), the head verb appears on the left of the complement but it is vise versa in both Persian and Mazandarani as the below diagrams show:

**English VP**: watched TV with Helen



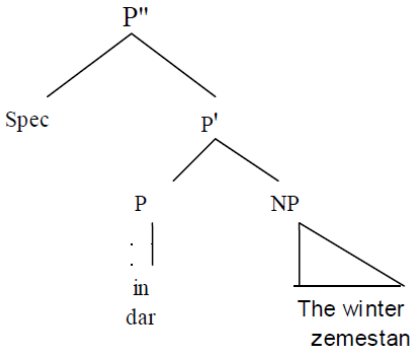

**Persian and Mazandarani VP**: yek naghashe marof ást.
att â marofe naghash hasse.



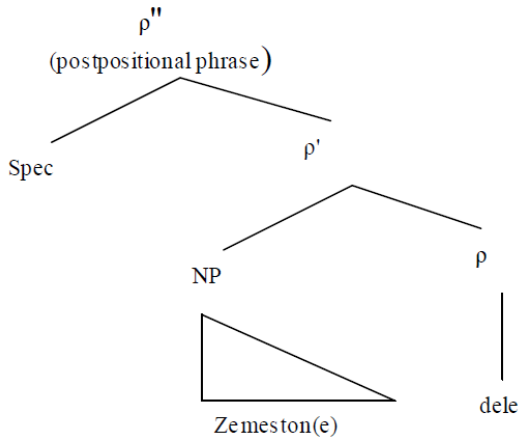

**PPs in English, Persian and Mazandarani:**

The head preposition, appears on the left of the complement in both English and Persian but Mazandarani is very different in this regard too because there is postposition in this language which comes on the right of the PP complement.

**English and Persian PP**: In the winter




**Mazandarani Postpositional phrase**: zemestone dele
winter in




**APs in English, Persian and Mazandarani:**

In most of the English APs, the head adjective as shown in the following, precedes its complements and that is why in English adjectives also along with the other lexical phrases are considered as head-initial (Rahmani & Abdolmanafi, 2012).

A) Some of the complements which follow the head adjective in English are:
   1- prepositional phrases: envious *of someone*
   2- enough (adv): warm *enough*
   3- that clause: so beautiful *that*

B) Some of the complements which precede the head adjective in English are:

determiners[1]: *rather* cold

Adjective phrase has a simple structure in Persian language, it is followed and preceded by one complement. Quantity adverbs as complements precede head adjectives in Persian and prepositional phrases as complements follow them (Gaholam-Alizade, 2007, pp. 107-108).

1- Quantity adverb: kheily dostdashtani
Very lovable

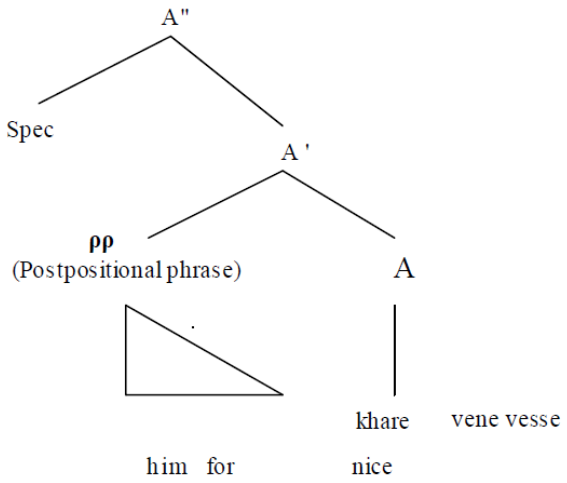
2- Prepositional phrase: bolandtar áz borje Mil âd
taller than tower Milad

As it is shown in the above examples, Persian head adjectives can be followed and preceded by PPs and quantity adverbs respectively; as far as I studied different Persian structure books, none of them answered the question why adjectives are head-initial in Persian; anyway the writers think that it is because the frequency of Persian adjectives which are preceded by quantity adverbs are higher than those of which followed by PP.

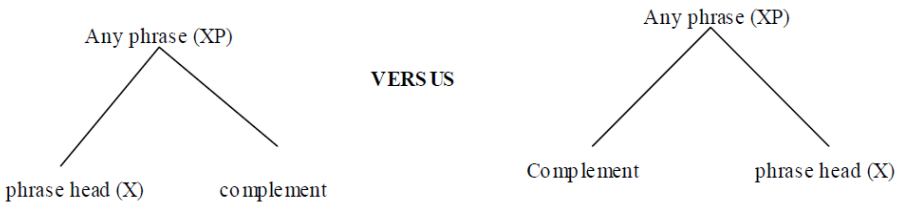
In Mazandarani, there are two complements such as quantity adverbs and postpositional phrase which both of them precede their head adjectives:

1- Quantity adverbs: kh âle kh âre
very nice

2- Postpositional phrase: vene vesse kh âre
him for nice




Thus, there are at least two possibilities for the structure of phrases in human languages; Head-initial or head-final:




**Head parameters in English aural text and in subjects' first languages**

Examples of head-final languages are Persian and Mazandarani, but the most different point which should be taken into account here, is that Mazandarani is a totally head-final language but Persian is a mostly head-final one. In the other words in Mazandarani, heads in every phrase such as: AP, NP, VP and PP follow its complements but in doesn't occur in all phrases of Persian. Conversely "In English all heads (whether nouns, verbs, prepositions, or adjectives etc.) normally precede their complements" (Radford, 2006, p. 19).

According to the above statements, there are fewer matches between English and Mazandarani than that of English and Persian, because while all heads in English is positioned before its dependents, all heads are positioned after dependents in Mazandarani.

Taking the head parameters in the aural text of English with those in Persian and Mazandarani into account, we would expect that L1 speakers of Persian and Mazandarani use the L1 values of the head parameters of their mother tongue languages and consult the abstract dominant configuration in listening English as a foreign language. Because

[1] Determiners co-occur with nouns to express a wide range of semantic contrasts, such as quantity or number; articles, like the,a, … and all of which have a distribution of article position like, each, every, this, that, some, any and etc.

there is mismatch between the head parameters of English with Persian and Mazandarani, it acts as a hindering factor in listening English text.

Concerning NPs, VPs, PPs and APs, evidence that Persian and Mazandarani L2 learners of English confer with the value of the head parameters for English grammar and allot a new value to this parameter constant with the value of the target language is expected. Both Persian and Mazandarani are head-final languages, but because Persian and English have almost two phrases in common namely PPs and NPs, then Mazandarani learners of English would have more problem regarding listening of English aural text because while English is a totally head-initial language, Mazandarani is a totally head-final language.

**Measures of central tendency and variability**

The impact of the head parameter on listening English as a foreign language was investigated and the central tendency and variability in subjects' listening tests are given in the following chart; the results of the study supported this hypothesis that the match of the parameters eases the second language listening process; while, its mismatch delays it.

TABLE 7:
CENTRAL TENDENCY AND VARIABILITY

| learners | mode | median | mean | variance | SD |
|---|---|---|---|---|---|
| Persian learners of English | 16.50 | 16 | 15 | 4.48 | 2.12 |
| Mazandarani learners of English | 14.50 | 15 | 14 | 2.65 | 1.63 |

So far, the points of structural differences between subjects' mother tongue and foreign language are identified as typological distinction, which are thought to be areas of potential difficulty in foreign-language learning, although CA hypothesis has been under question by the 1980s, writers of this paper think CA can be thought to be areas of difficulty as far as parametric directionality and computational system of UG are concerned.

In view of some controversies surrounding the CA Hypothesis, the writers of this paper think that one should be aiming at an elaboration of the structural specifications of languages rather than rejecting the CA Hypothesis totally.

As far as educated learners of a foreign or second language are concerned, identifying areas of difficulty besides producing appropriate teaching materials to overcome the difficulties seems to be fruitful for them. "Lado claims that the key to ease or difficulty in foreign language learning lies in the comparison between native and foreign language." So, the native language of the learner can interfere with the learning of the target language especially as far as parameter setting is concerned and it should be added that interference from the mother tongue doesn't constitute the main cause of the difficulty in learning due to existence of other different factors which aren't so much pertained to this study. Meantime it seems that this CA assumption which says: *the greater the difference between the structure of the source and the target language, the more difficult it is to learn a foreign language* can not be so inconceivable at least as far as parameter setting of UG is concerned.

## V. CONCLUSION

Hence for a child who acquires Persian as L1 he mostly encounters with head final parameters and vise versa a child who acquires English, he totally encounters with head initial parameters and hearing structures, containing head final parameters would be positive evident for children acquiring Persian as a first language and would be negative evident for children acquiring English as a first language. Since there is mis-match between the parameter of their mother tongue and that of they are hearing, "acquiring a language entails setting all the parameters of UG befittingly. They are powerful in their effects but limited in numbers, for example in order to acquire English rather than another language, the child should first determine the values for the head parameter, and a handful of other parameters." (Chomsky, 1988, p.134)

In accordance with positive and negative evidence in parameter setting, L1 learners of Persian and Mazandarani's speech input is made up of structures in which heads usually follow their complements, and then listening the L2 with different head position provides them with negative evidence. According to their experience, the new input includes few examples of structures in which complements precede their heads and then, learners infer that the English language is not a head-final language and so differs from their mother tongue.

Concerning to Principles and Parameters in L2 Acquisition**,** the initial state of SLA is named Si, initial state of L2, which actually consists of S0 and Ss. According to this statement Persian's initial state of L2, is to some extent different from Mazandarani's, because they are equipped with different knowledge of L1 containing the universal grammar of principles and parameters, due to the fact that while *most* phrases are head-final in Persian, almost *all* phrases are head-final in Mazandarani.

Taking the head parameters in the aural text of English with those in Persian and Mazandarani into account, when L1 speakers of Persian and Mazandarani listened to English texts, they confronted with a new parameters while having the L1 values of the head parameters of their mother tongue as initial state of L2 and then assigned another value as head-initial parameters. Since *heads* in all phrases of APs, NPs, VPs and PPs of Mazandarani follow its complements but not in all phrases of Persian and in contrast all heads in English normally precede their complements, there are fewer matches between English and Mazandarani than that of English and Persian. Then Mazandarani learners of English

have more problems regarding listening the aural texts of English. Therefore it is concluded that the match of the parameters facilitates the L2 listening process whereas, its mismatch hinders it.

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