CHAPTER FOUR

CONTRASTIVE ANALYSIS

4.1 Introduction

"The linguistic theory that follows the aspects of a foreign language teaching strategy is the contrastive pedagogical analysis between the source language and the language to be learned. This theory asserts that CA does have validity as a device for predicting some of the errors a foreign language learner will make and provides a promising basis for investigating general properties of the mind. It also indicates that CA is uniquely an appropriate methodology for further study of fundamental processes of transfer and interference in learning tasks." (Lado, 1957: 88)

On the ground of this theory, it is evident that CA provides important information on the similarities and differences between L2 and the native language (L1). It should go beyond a mere listing of predicted errors and must provide teachers with an explanation of why such errors are made, how great their degree of difficulty is, and what steps must be taken to avoid them. In CA, the description of the language systems must be exhaustive.

A statement made by Wilga Rivers (1975: 64-65) points out the weaknesses of a scientific description of the two language systems:

"A contrastive analysis of two languages with a scientific rather than a pedagogical intent is not in itself a teaching aid. It must be as exhaustive as its
author can make it, in the light of his specific intention, describing with equal care structural contrasts of frequent and of less frequent use or analyzing a limited area in considerable detail. Since the linguist's aim must be to make the description scientifically elegant rather than pedagogically applicable, the analysis will not normally be directly transferable to teaching materials and situations. Chomsky has already emphasized the difference between a linguistic grammar, which is an account of competence, and a pedagogic grammar, which attempts to provide the student with the ability to understand and produce sentences of particular language. The same distinction may be applied to types of contrastive studies."

If a contrastive analysis is based on pedagogical intent, it can specify the pedagogical features and help the course designer to develop a more detailed and elaborate syllabus for the EFL language course. In Di Pietro's terms, "the information yielded by such an analysis can be of great value not only to the teacher in planning his personal approach but also to the methodologist in writing pedagogical materials for EFL instruction." (Di Pietro, 1971: 211) It can make a significant contribution to language-learning experiments and help the preparation of better textbooks and improvement of teaching of EFL in general. It can also assist the teacher to be aware of the structural conflicts of the two languages and bring his awareness to bear upon the explanations and drills used in the classroom and, as a result, help his students master the native language than that the native language. There is also the problem of the choice of a descriptive model based on a linguistic theory.

As Fisiak (1981: 64) states, one cannot escape the fact that the problem of which model of linguistic theory can be regarded as the most adequate approach to CA has not
been solved yet and up to the present there is nothing like a fully elaborated CA theory. There are, however, different approaches to CA.

i) Structural Approach to Contrastive Linguistics

Maria Lipinska (1975) as a defender of the structural approach indicates that if the primary goal of CA is to be of immediate help in foreign language learning and teaching and if language consists of a system of various items, then the structural method is sufficient. Krzeszowski (1967: 35) is of the opinion that "surface features seem much more important to the language learner than any possible similarities and differences in deep structures." Following this view, purposeful contrastive investigations can only be carried out on the basis of structural approach.

ii) Transformational Approach to Contrastive Linguistics

Other scholars are more critical in their evaluation of the structural validity of CA. Fairly representative of these are Nickel & Wagner, who write:

Taxonomic (structural) grammatical theory consists of a set of procedures which are merely ways of arranging the original data. Consequently, it admits only the comparison of surface structures. The results of such comparisons are, to be sure, highly relevant for language intuition, but they tend to overemphasize differences in the surface structures of the languages compared while neglecting more fundamental differences in the underlying deep structures. (Nickel & Wagner, 1968: 240)
A number of studies and contrastive projects published in recent years call for the adoption of a transformational model for contrastive analysis. König, while not neglecting the advantages of generative transformational grammar, maintains that:

The danger of a strong theoretical orientation is only too obvious. The more theoretical the orientation, the more easily one may lose sight of the practical aims one had in mind when starting contrastive research. The more sophisticated the theoretical framework, the more formidable becomes the problem of converting the results of the analysis into a format appropriate for teaching purposes. (König, 1971: 131)

Thus, König seems to reject the generative transformational approach as being too theoretical.

### iii) An Eclectic Approach to Contrastive Linguistics

The inadequacy of the two approaches cited above has led many scholars not to adhere in advance to a particular grammatical model throughout their investigations.

Filipovic (1975) examines several contrastive studies and finds that none employs a specific and consistent method that might be regarded as the method of contrastive analysis. He concludes that the best model for CA will be a combination of both structural and transformational grammars.

Ivir (1971) demonstrates how a taxonomic-generative model is indispensable for CA. He says that the business of CA is the contrasting of both generative and surface structures not just one, and not just the other.
Afolayan (1971) examines certain weaknesses in existing approaches and finally suggests a combined model for CA maintaining that a union of the two major approaches will make CA maximally relevant to the teaching of English as a foreign language.

Preston (1974) and Khafaji (1975) investigate the applicability of the two major grammars to CA and both suggest an eclectic approach to these grammars. The former finds that in the process of analysis, some data present themselves better to transformational framework, while others seem better described using a structural presentation. This shows how an eclectic approach to contrastive linguistics that combines the aspects of both grammars can be developed and better applied to the comparison of any two languages under investigation.

Given that the basic theory of CA enables the researchers to determine the structural similarities and differences between two languages, the task of comparison can be carried out in different ways depending on the kind of approach to which the investigator adheres. For example, he may either hold closely to the structural-grammar approach, the transformational-grammar approach, or the eclectic approach.

For the purpose of description, the present study has adopted a traditional descriptive approach. This approach consists of taking the descriptions of the phonetic and phonological systems of the two languages and contrasting them in order to determine the similarities and differences between them. The reason for the application of this strategy is that the phonetic and phonological patterns of English and Persian can be adequately described, or nearly so, by this approach.

This study involves four different procedures. As Whitman (1970) puts it, the first of these is the *description*. In this procedure, two languages in question are described. Second, a *selection* is made of certain forms – items, rules, structures – for contrast, since it is virtually impossible to contrast every possible fact of two languages. The third procedure
is the *contrast* itself, the mapping of the relationship of one system to the other. Finally, one formulates a *prediction* of error or of difficulty on the basis of the first three procedures.

### 4.2 Contrastive Analysis of the Phonological Systems of Persian and English

#### 4.2.1 Consonant Phonemes

**Table 4.1**

<table>
<thead>
<tr>
<th></th>
<th>bilabial</th>
<th>labio-dental</th>
<th>dental</th>
<th>(dental-)alveolar</th>
<th>post-alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>uvular</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>plosives</td>
<td>p b</td>
<td></td>
<td>t d</td>
<td></td>
<td>k g</td>
<td>q</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fricatives</td>
<td>f v</td>
<td>θ ð</td>
<td>s z</td>
<td>f ʒ</td>
<td>h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>affricates</td>
<td></td>
<td></td>
<td></td>
<td>tʃ dʒ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nasals</td>
<td>m</td>
<td>n</td>
<td></td>
<td></td>
<td>η</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>laterals</td>
<td>l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>trills</td>
<td>(r)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>approximants</td>
<td>w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(r)</td>
<td>j</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ The phonemes in red occur only in the English language. Those in green exist only in the Persian language, and the consonants in black are found in both languages.

The phonemes that exist in the two systems are the plosives /p, b, t, d, k, g/, the fricatives /f, v, s, z, ʃ, ʒ, h/, the affricates /tʃ, dʒ/, the nasals /m, n/, the lateral /l/ and the approximants /r, j/. Persian has the plosives /q, ʔ/ and the fricative /ɣ/ which are not found in English.

The English phonemes that do not occur in Persian are: the fricatives /θ, ð/, the nasal /ŋ/ and the approximant /ʊ/.
4.2.1.1 Plosives

Table 4.2
Contrastive Persian and English plosive phonemes

<table>
<thead>
<tr>
<th></th>
<th>bilabial</th>
<th>labio-dental</th>
<th>dental</th>
<th>(dental-)alveolar</th>
<th>post-alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>uvular</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td>p</td>
<td>b</td>
<td>t</td>
<td>d</td>
<td></td>
<td>k</td>
<td>g</td>
<td>q</td>
<td>?</td>
</tr>
<tr>
<td>English</td>
<td>p</td>
<td>b</td>
<td>t</td>
<td>d</td>
<td></td>
<td>k</td>
<td>g</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The English plosives /p, b, t, d, k, g/ occur in Persian, as well.

The plosive phonemes /q/ and /ʔ/ occur in Persian, but not in English.

Iranian students should have no difficulty learning the English plosives because they exist in the Persian system.

4.2.1.2 Fricatives

Table 4.3
Contrastive Persian and English fricative phonemes

<table>
<thead>
<tr>
<th></th>
<th>bilabial</th>
<th>labio-dental</th>
<th>dental</th>
<th>(dental-)alveolar</th>
<th>post-alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>uvular</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td>f</td>
<td>v</td>
<td>s</td>
<td>z</td>
<td>j</td>
<td>3</td>
<td></td>
<td></td>
<td>h</td>
</tr>
<tr>
<td>English</td>
<td>f</td>
<td>v</td>
<td>Ǿ</td>
<td>s</td>
<td>z</td>
<td>j</td>
<td>3</td>
<td></td>
<td>h</td>
</tr>
</tbody>
</table>

The fricative phonemes /f, v, s, z, j, 3, h/ occur in both languages.

The fricative phoneme /Ǿ/ occurs in Persian, but not in English.

The fricatives /Ǿ/ and /Ø/ are phonemes which occur in English, but not in Persian.

Therefore, It is possible that Iranian students replace /Ǿ/ with /s/ or /t/ and /Ø/ with /z/ or /d/.
4.2.1.3 Affricates

Table 4.4
Contrastive Persian and English affricate phonemes

<table>
<thead>
<tr>
<th></th>
<th>bilabial</th>
<th>labio-dental</th>
<th>dental</th>
<th>(dental-)alveolar</th>
<th>post-alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>uvular</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The affricate phonemes /tʃ/ and /dʒ/ occur in English and Persian.

As the phonemes exist in both systems, Iranian students should have no difficulty learning the English affricates.

4.2.1.4 Nasals

Table 4.5
Contrastive Persian and English nasal phonemes

<table>
<thead>
<tr>
<th></th>
<th>bilabial</th>
<th>labio-dental</th>
<th>dental</th>
<th>(dental-)alveolar</th>
<th>post-alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>uvular</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td>m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n</td>
<td></td>
<td>η</td>
<td></td>
</tr>
</tbody>
</table>

The nasal phonemes /m/ and /n/ both occur in English and Persian.

The nasal /ŋ/ is among the English consonant phonemes, but not in Persian.

Iranian students seem to have difficulty learning the English nasal /ŋ/, which does not exist in Persian system. They might replace it with [ŋ].
4.2.1.5  Laterals

Table 4.6
Contrastive Persian and English lateral phonemes

<table>
<thead>
<tr>
<th></th>
<th>bilbial</th>
<th>labio-dental</th>
<th>dental</th>
<th>(dental-)alveolar</th>
<th>post-alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>uvular</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The lateral phoneme /l/ occurs in both English and Persian and should not be a problem for the learners.

4.2.1.6  Approximants

Table 4.7
Contrastive Persian and English approximant phonemes

<table>
<thead>
<tr>
<th></th>
<th>bilbial</th>
<th>labio-dental</th>
<th>dental</th>
<th>(dental-)alveolar</th>
<th>post-alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>uvular</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>j</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>w</td>
<td></td>
<td></td>
<td></td>
<td>r</td>
<td>j</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The nasal phoneme /j/ occurs both in the English and Persian languages.

The approximant /w/ occurs only in the English language but not in the Persian.

The approximant /r/, which is a post alveolar phoneme, has an equivalent in Persian, but that one is a trill. Therefore, the Iranian learners might replace the English /r/ with the Persian trill form [r].

/w/ does not exist in Persian; therefore, the Iranian learners might use the labio-dental /v/ for this English approximant.
4.2.2 Vowel Phonemes

Table 4.8
English and Persian vowel phonemes

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>close</td>
<td>i</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>mid</td>
<td>e</td>
<td>ɔ ə</td>
<td>ɔ</td>
</tr>
<tr>
<td>open</td>
<td>æ</td>
<td>ʌ</td>
<td>ɑ</td>
</tr>
</tbody>
</table>

¹The phonemes in red occur in the English language. Those in green exist in the Persian language and the vowels in black are found in both languages.

The vowel phonemes that exist in the two systems are /i, u, e, ə, æ, ɑ/.

The English vowel phonemes that do not occur in Persian are /i, u, ə, ɔ, ʌ, ɑ/.

Table 4.9
English and Persian close vowel phonemes

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td>i</td>
<td></td>
<td>u</td>
</tr>
<tr>
<td>English</td>
<td>i</td>
<td>i</td>
<td>u</td>
</tr>
</tbody>
</table>

The close front vowel /i/ and the close back vowel /u/ exist in the two systems.

The close front /i/ and close back /u/ are English vowel phonemes which do not occur in Persian.

Iranian students might have difficulty learning the English front close vowels /i/ and /u/.

They might replace them with /i/ and /u/, respectively.

Table 4.10
English and Persian mid vowel phonemes

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td>e</td>
<td></td>
<td>ɔ</td>
</tr>
<tr>
<td>English</td>
<td>e</td>
<td>ɔ ə</td>
<td>ɔ</td>
</tr>
</tbody>
</table>
The mid front vowel /e/ and the mid back vowel /ə/ both occur in the two systems.

The mid central /ɜ/ and /ʌ/ are English vowel phonemes which do not exist in Persian.

Iranian students are likely to have difficulty learning /ɜ/ and /ʌ/, and might replace both with /e/.

Table 4.11
English and Persian open vowel phonemes

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td>æ</td>
<td></td>
<td>ə</td>
</tr>
<tr>
<td>English</td>
<td>æ</td>
<td>ʌ</td>
<td>ə</td>
</tr>
</tbody>
</table>

The open front vowel /æ/ and the open back vowel /ə/ exist in the two systems.

The open central /ʌ/ and open back /ʊ/ are English vowel phonemes which do not occur in Persian.

Iranian students might have problems with learning /ʌ/ and /ʊ/. They might replace both with /ə/ or replace /ʌ/ with /æ/.

4.2.3 Diphthongs

Table 4.12
English and Persian diphthongs

<table>
<thead>
<tr>
<th></th>
<th>centring</th>
<th>closing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>æʊ æʊ əʊ əʊ əʊ əʊ əʊ əʊ əʊ əʊ əʊ</td>
<td></td>
</tr>
</tbody>
</table>

¹All the above phonemes, in red colour occur in the English language.

The centering diphthongs /æʊ, əʊ, ʊə/ and the closing diphthongs /æɪ, əɪ, əʊ, əʊ/ exist in English, but not in Persian.
Iranian students might have difficulty learning these diphthongs because of the absence of the vowels /i, ə, o/ in the Persian language.

/ɪə/: 

/I/ and /ə/ do not exist in Persian; therefore, the English diphthong /ɪə/ shown in the above diagram, might be replaced with the diphthong [ie] as illustrated in the following diagram.

Example: 'here' [hɪə] might be pronounced *[hie].

/eɪə/: 

Due to the absence of /ə/ in Persian, Iranian students might substitute the diphthong /eɪə/, shown in the above diagram, with a long form of the front mid vowel [e] as represented in the following diagram.

Example: 'hair' [hɪə] might be pronounced *[he:].

/ʊə/:
/u/ and /œ/ do not exist in Persian. Therefore, the English diphthong /uœ/ shown in the above diagram, might be replaced with the diphthong [ue] as shown in the following diagram.

Example: 'pure' [pœ] might be pronounced *[pue].

/el/:

/e/ does not exist in Persian; therefore, the English diphthong /el/ shown in the above diagram, might be replaced with the diphthong [ei]. This is represented in the following diagram.

Example: 'say' [sei] might be pronounced *[sei].

/əl/:
Because /a/ and /u/ do not exist in Persian, the English diphthong /au/ shown in the above diagram, might be replaced with the diphthong [ai] as shown in the following diagram.

Example: 'say' [par] might be pronounced *[pɔi].

/ɔi:

/I/ does not occur in Persian; therefore, the English diphthong /ɔi/ shown in the above diagram, might be replaced with the diphthong [ɔi] as represented in the following diagram.

Example: 'toy' [ɔri] might be pronounced *[ɔi].

/eu/:

/əu/:
/ə/ and /ʊ/ do not exist in Persian. Therefore, the English diphthong /əʊ/ shown in the above diagram, is likely to be replaced with the diphthong [eu], as illustrated in the following diagram.

Example: 'go' [ɡəʊ] might be pronounced *[ɡeu].

/au/:

/aʊ/ does not exist in Persian; therefore, the English diphthong /aʊ/ shown in the above diagram, might be replaced with the diphthong [ɑʊ] as represented in the following diagram.

Example: 'now' [nəʊ] might be pronounced *[nɑʊ].

4.2.4 Triphthongs

Table 4.13

<table>
<thead>
<tr>
<th>English and Persian triphthongs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triphthongs</td>
</tr>
<tr>
<td>Persian</td>
</tr>
<tr>
<td>English</td>
</tr>
</tbody>
</table>

1All the above phonemes, in red color in the English language.
As the above table represents, there are five triphthongs in English, which do not have any equivalent in the Persian language. These are: /eɪə/, /aɪə/, /ɔɪə/ and /auə/.

/eɪə/:  

Due to the absence of /i/ and /ə/ as well as the absence of a sequence of three vowels in Persian, the learner might replace [i] with [j] and [ə] with [e]. For example, 'mayor' [meɪə] might be pronounced *[meje].

/aɪə/:  

This problem is the same as for /eɪə/, that is [i] might be replaced with [j] and [ə] with [e] by the learners. For example, 'fire' [faɪə] might be pronounced *[fajə].

/ɔɪə/:
In this case, [i] might be replaced with [j] and [ɔ] with [e] by the Iranian students. For example, 'loyel' [lɔeĩl] might be pronounced *[lɔjeil].

\[ /ɑʊə\]:

/ʊ/ does not exist in Persian. Therefore, the learner might replace [ʊ] with [v] which is found in Persian. For example, 'lower' [ləʊər] might be pronounced *[leve] or *[ləve].

\[ /auə\]:

As in the case of /ʊə/, Iranian learners might replace [ʊ] with [v] which is found in Persian. For example, 'power' [pəʊər] might be pronounced *[pəve].

4.3 Syllables

4.3.1 Syllabic Structure

Syllable structure, which is described as possible combinations of vowels and consonants, is to a great extent different in the two languages. The similarities and differences are discussed below.
4.3.1.1 Syllable initial

i) Pure vowels and compound vowels

In English, a syllable can begin with a pure vowel, a diphthong, or a triphthong, while in Persian, no vowel, diphthong, or triphthong can initiate a syllable. In other words, all the syllables of the Persian language should begin with a consonant.

Due to the absence of vowels, diphthongs, and triphthongs in the initial position of Persian syllables, Iranian students would have problems with the pronunciation of the syllables initiated with a vowel, diphthong, or triphthong. For example, 'end' [end] might be pronounced as *[ʔend].

ii) Single consonant

Persian
All Persian consonants can appear in initial position.

English
All English consonants except [ŋ] can appear in initial position. [ʒ] is rare.

Iranian students should have no difficulty learning the production of English syllable onset provided that it begins with a single consonant. For example, words such as 'toy', 'car', 'good' and so forth, all beginning with a single consonant, are easy for the Iranian learners to produce.
iii) Two-consonant clusters

Persian

Initial two-consonant clusters do not exist in Persian

English

In English, the consonants can combine in two different ways and produce clusters as follows:

a) One of the initial consonants [p, t, k, b, d, g, f, θ, s, ʃ, h, v, m, n, l] + one of the post-initial consonants [l, r, w or j]

b) Pre-initial [s] + one of the initial consonants [p, t, k, f, m, n, l, w, j, r]

Consonant clusters do not occur in Persian. Therefore, the learner might insert a vowel in the cluster when one of the initial consonants [p, t, k, b, d, g, f, θ, s, ʃ, h, v, m, n, l] combines with one of the post-initial consonants [l, r, w or j]. For example, 'pride' [praɪd] is pronounced *[pɾaɪd], or the word 'glad' [ɡlæd] is pronounced *[ɡlæd]. In the case of clusters made up of a pre-initial [s] and one of the initial consonants [p, t, k, f, m, n, l], Iranian students might add a glottal stop and the vowel [e] to the beginning of such combinations. Generally, 'spark' [spa:k] is pronounced *[ʔspaːk], and 'slide' [slaɪd] is pronounced *[ʔslaɪd]. This process is called prothesis. If the pre-initial [s] combines with the initial [w], the vowel [ə] might be inserted in the cluster by the learner. For example, 'swing' [swɪŋ] is pronounced *[səwɪŋ]. If the cluster is made up of the pre-initial [s] followed by one of the initial consonants [j] or [r], the learner might insert the vowel [e] in the cluster. For example, 'sue' [sju:] and 'syringe' [sɜːrɪndʒ] are pronounced *[seju:] and *[sɛrɪndʒ]. This process is known as epenthesis.
iv) Three-consonant clusters

Persian

Initial three-consonant clusters are absent in Persian.

English

English has a three-consonant cluster made up of a pre-initial [s] + one of the initial consonants [p, t, k] + one of the post initial consonants [l, r, w, j]

This kind of initial cluster does not exist in Persian. Therefore, learners begin these clusters with a glottal stop followed by the vowel [e]. For example, 'start' [staːt] is pronounced *[ʔeʃtaːt].

4.3.1.2 Syllable Final

i) Pure vowels and compound vowels

Persian

Persian syllables can end in a single vowel.

English

English syllables can end in a single vowel, a diphthong, or a triphthong.

Syllables ending in diphthongs and triphthongs do not exist in Persian. Therefore, learners might insert [w] and [j] in some diphthongs or replace the final vowel of other diphthongs or medial vowels in the triphthongs with one of these consonants.
a) Diphthongs

[iə]:
Learners might insert the consonant [j] in the diphthong [iə] and replace [ə] with [e]. For example, 'dear' [dɪə] might be pronounced * [dɪe].

[uə]:
Learners might insert the consonant [w] in the diphthong [uə] and replace [u] with [u]. For example, 'sure' [ʃuə] might be pronounced *[ʃuwe].

[ei]:
Iranian students might replace the final vowel of the diphthong [ei] with the consonant [j]. For example, 'made' [meɪd] might be pronounced *[mejɪd].

[ɔɪ]:
Learners might replace the final vowel of this diphthong with the consonant [j]. For example, 'like' [laɪk] might be pronounced *[laɪk].

[ɔɨ]:
As in the case of the two previous diphthongs, the learners might replace the final vowel with [j]. for example, 'boy' [bɔɪ] might be pronounced *[bɔɪ].

[ʌʊ]:
Iranian students might replace [ʊ] with the consonant [w] and [ə] with [ɔ]. For example, 'know' [nəʊ] might be pronounced *[nəw].

[au]:
In this case, the second vowel might be replaced with the consonant [w] and [a] with [ɔ]. for example, 'now' [nəʊ] might be pronounced *[nəw].

[ɛə]:
Learners might replace the whole diphthong with a long form of \([e]\). For example, 'hair' \([he\theta]\) might be rendered as *[he:].

b) Triphthongs

As it was said in section 4.2.4, Iranian students might replace the vowel \([i]\) with \([j]\) in the triphthongs \([eɪə], [aɪə], \) and \([ɔɪə], \) while they probably replace \([u]\) in the triphthongs \([ɔʊə]\) and \([ɒʊə]\) with the consonant \([v]\). For example the words 'layer' \([leɪə]\) and 'tire' \([tæɪə]\) might be pronounced *[leʃa] and *[tæʃa], and the words 'mower' \([məʊə]\) and 'tower' \([təʊə]\) are likely pronounced *[mɔve] and *[tɔve], respectively.

i) Single consonants

In Persian, any consonant can appear in syllable final position.

In English, any consonant can appear in syllable final position except for \([h, r, w, j]\).

Since all consonants can occur in syllable final position, Iranian students should have no difficulty with the syllables having a single consonant in final position.

ii) Two-consonant clusters

Persian

In Persian, all consonants except for \([p, g, ʒ, ʧ]\) can appear as the first element of two-consonant clusters in final position. Furthermore, all consonants except for \([p]\) can appear as the second element of the two-consonant cluster in final position.

English

In English, one of the pre-final consonants \([m, n, η, l, s]\) can occur before one of the final consonants \([p, k, d, f]\). Furthermore, one of the final consonants \([p, k, d, f]\) can appear before one of the post-finals \([s, z, t, d, θ]\).
Due to the absence of [p] as the first element in the cluster, Iranian students might have problems with final two-consonant clusters beginning with [p]. For example, 'leaped' [liːpt] is likely pronounced with a vowel inserted between the cluster, as in *[liːpet].

iii) Three-consonant clusters

Persian

In Persian, there is no syllable ending in a three-consonant cluster.

English

In English, a three consonant cluster can be made up of a sequence of pre-final consonants [m, n, ɳ, l, s], final consonants [p, k, d, f], and post-finals [s, z, t, d, θ].

A three-consonant cluster also can be made up of one of the final consonants [p, k, d, f] followed by one of the post-finals1 [s, z, t, d, θ], which in turn is followed by one of the post-finals 2 [s, z, t, d, θ].

Due to the absence of three-consonant clusters in Persian, Iranian students might have problems with the pronunciation. They might insert a vowel between the final and post final consonants, for example, 'bands' [bændz] might be rendered as *[bændez].

iv) Four-consonant clusters

Persian

In Persian, there is no syllable ending in a four-consonant cluster.

English

In English, there are two different ways for making final four-consonant clusters:

a) One of the pre-final consonants [m, n, ɳ, l, s] + one of the final consonants [p, k, d, f] + one of the post-finals 1 [s, z, t, d, θ] + one of the post-finals 2 [s, z, t, d, θ]
b) One of the final consonants \([p, k, d, f]\) + one of the post-finals 1 \([s, z, t, d, \theta]\) + one of the post-finals 2 \([s, z, t, d, \theta]\) + one of the post-finals 3 \([s, z, t, d, \theta]\)

Because the four-consonant clusters do not exist in Persian, Iranian learners might have problems with the pronunciation of syllables ending in such clusters. They might omit some of the consonants or insert a vowel between them. For example, 'sixths' \([s\text{iks}\theta]\) might be pronounced as \(*[s\text{iks}]*\), with a long final [s], or the word 'nexts' \([\text{nekst}\text{s}]\) might be rendered as \([\text{nekst}\text{es}]\), with vowel inserted between the last two consonants.

4.4 Stress

4.4.1 Levels of Stress

**Persian**

In the Persian language, based on the grammatical category of the word, only one syllable in each word is stressed.

**English**

English is commonly believed to have two levels of stress, namely primary and secondary.

Therefore, Iranian students might have problems with the words containing two levels of stress, for example 'negotiation' \([\text{n}\text{i}1\text{g}\text{\text{o}\text{\beta}}\text{f}\text{t}'\text{e}\text{\text{j}}\text{\text{n}}]\) is likely pronounced \(*[\text{n}\text{i}1\text{g}\text{\text{o}\text{\beta}}\text{f}\text{t}'\text{e}\text{\text{j}}\text{\text{n}}]*\), with only one stress on a syllable, ignoring the other differences in pronunciation.
4.4.2 The Placement of Stress

i) Verbs

Persian

Present tense: generally on the first syllable of the word

Past tense: two-syllable verbs: on the first syllable
verbs with more than two syllables: on the penultimate or last syllable

future tense: the last syllable of the auxiliary verb

imperative: on the first syllable of the word

present and past perfect tense: on the last syllable of the past participle of the verb

English

One-syllable verbs: If they are pronounced in isolation they are said with primary stress.

Two-syllable verbs: If the second syllable of the verb is a strong syllable, then the second syllable is stressed.

If the final syllable is weak, the first syllable is stressed.

If the final syllable contains [əʊ], it is also unstressed.

Three-syllable verbs: If the third syllable is strong, then it will be stressed.

If the third syllable is weak, the stress will be placed on the penultimate syllable when that syllable is strong.

If both the penultimate and final syllable are weak, then the stress goes on the initial syllable.
Because of these different ways of stressing the verbs in Persian and English, Iranian students might have problems with stressing the English verbs. For example, the present verb 'accept' [ək'sept] might be pronounced as *[e'ksɛpt]*, with the stress on the first syllable, or the past verb 'decided' [dɪ'saɪdɪd] might be pronounced as *[dɪ'saɪdɪd]*, with stress on the last syllable. However, there might be similarities between the two languages. For example, Persian speakers will pronounce the word 'opened' correctly, that is with the stress on the first syllable since the past tense of the two-syllable verbs in Persian are stressed on the first syllable.

ii) Nouns

**Persian**

In the case of nouns (plural or singular) or other words with any grammatical category functioning as noun, generally the last syllable is stressed.

**English**

One-syllable nouns: If they are pronounced in isolation they are said with primary stress.

Two-syllable nouns: If the second syllable contains a short vowel, then the stress will usually go on the first syllable. Otherwise it will be on the second syllable.

Three-syllable nouns: If the third syllable is weak, or ends with [ʊʊ], then it is unstressed.

If the second syllable is strong, then stress will be placed on that syllable.

If the penultimate and third syllables are both weak, then the stress will be placed on the first syllable.
Three-syllable simple nouns: If the final syllable is strong, the first syllable will usually be stressed, and the last syllable is usually quite prominent, so that in some cases it could be said to have secondary stress.

Due to the great differences in stressing the nouns in Persian and English, learners might have problems with stressing the English nouns. For example, the nouns ‘dictionary’ ['dɪkʃənri] and ‘carpet’ ['kaːpɪt] might be pronounced as *[dɪkʃənri] and *[kaːpɪt], with the stress on the last syllable.

iii) Adjectives

Persian

In the case of adjectives or other words with any grammatical category functioning as adjective, generally the last syllable is stressed.

English

One-syllable adjectives: If they are pronounced in isolation they are said with primary stress.

Two-syllable adjectives: If the second syllable of the adjective is a strong syllable, then the second syllable is stressed.

If the final syllable is weak, the first syllable is stressed.

If the final syllable contains [əʊ], it is also unstressed.

Three-syllable adjectives: If the final syllable is strong, the first syllable will usually
be stressed, and the last syllable is usually quite prominent, so that in some cases it could be said to have secondary stress.

Because of the differences in stressing the adjectives in English and Persian, Iranian students might have difficulty stressing the right syllable in English adjective. For example, the adjectives 'difficult' ['dɪfɪkəlt] and 'happy' ['hæpt] might be pronounced as *[dɪfɪ'kəlt] and *[hæ'pt], respectively.

iv) Adverbs

Persian

In some adverbs, stress is put on the first syllable, in some others, the last syllable is Stressed, while there are still other adverbs which get stress on the first or last syllable.

English

English adverbs ending in *ly have all the characteristics of adjectives. The other kinds of adverbs get stress on different syllables.

Because of the differences, Iranian students might apply the stress pattern of Persian syllables to English adverbs. For example, they might pronounce the English adjective 'absolutely' ['æbsəluːtlɪ] as [æbˈsəluːˈtli], with the stress on the last syllable.
4.5 Summary

There are 24 consonant phonemes in English, which four of them, namely /w/, /θ/, /ð/ and /ŋ/ have no equivalent in Persian. English and Persian have 20 consonant phonemes in common.

There are 12 pure vowel phonemes in English. Six phonemes have no equivalent in Persian, while all six Persian vowel phonemes occur in English. The English diphthongs and triphthongs are not among the Persian phonemes.

In English, a syllable can begin with a pure vowel, a diphthong, or a triphthong, while in Persian, no vowel, diphthong, or triphthong can initiate a syllable. In other words, all the syllables of the Persian language should begin with a consonant.

Due to the absence of vowels, diphthongs, and triphthongs in the initial position of Persian syllables, Iranian students might have problems with the pronunciation of the syllables initiated with a vowel, diphthong, or triphthong.

English syllables can end in a single vowel, a diphthong, or a triphthong, while Persian syllables can end in only a single vowel.

Syllables ending in diphthongs and triphthongs do not exist in Persian. Therefore, learner might insert /w/ and /j/ in some diphthongs or replace the final vowel of other diphthongs or medial vowels in the triphthongs with one of these consonants.

In the Persian language there is only one level of stress, and based on the grammatical category of the word only one syllable in each word is stressed, while English is commonly believed to have two levels of stress.
While some simple rules have been introduced for the placement of stress in Persian (in except for adverbs), many writers believe that English word stress is so difficult to predict that it is best to treat stress placement as a property of the individual word, to be learned when the word itself is learned.