

COMPARATIVE STUDY OF ENGLISH AND ARABIC CONSONANTS.

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Abstract

The present study compares and contrasts the consonantal systems of English and Modern Standard Arabic for pedagogical purposes. The consonants of the two languages are described, compared and contrasted to provide information about the phonological systems of both of them, to find similarities and differences between them and henceforth the potential areas of difficulty in teaching English as a foreign/second language. The study presents a description of different aspects of both phonological systems and examines their unique features. It accounts for the detection of phonemes, classification and distribution of consonants. It attempts to help teachers and textbook writers to anticipate the phonological problems that Algerian students are likely to face while producing utterances. It also attempts to help learners to improve their pronunciation and spelling. Hence, this study is descriptive rather than an action-research.

Key Words: sound system, contrastive analysis, English, Modern Standard Arabic, vowels, consonants.

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Introduction

It has become widely accepted among linguists that materials to be used in teaching English as a foreign language should be based on a comparison of the native language and the target language. Fries (1945, p.,76) defines contrastive analysis as follows «the most efficient materials are those that are based upon a scientific description of the language to be learned carefully compared with a parallel description of the native language of the learner.” Contrastive analysis describes the structural differences and similarities of two or more languages at such a level as phonology, grammar and semantics, especially in order to improve language teaching and translation.

In the current study, we compare English and Arabic sound systems in order to detect differences and similarities (with more focus on the differences rather than similarities) and hence predict easiness or difficulty. Then we can provide some reasons for students' pronunciation errors.

1- Modern Standard Arabic

With regard to the roots, Arabic is the Semitic language of Arabs, written from right to left in a cursive script. Modern Standard Arabic (MSA) refers to the written form that is used in the official and academic context in the Arab world; it is common to all literate Arabic speakers in the world. Its ancestor is Classical Arabic (CA) or Quranic Arabic that is used in the Quran (the sacred book of Islam) and numerous literary texts in the 7th and 9th centuries.

MSA is a variety that has evolved from Classical Arabic and is used throughout the Arab world from the Atlantic Ocean to the Arabian Gulf. Theoretically speaking, there is one version of Modern Standard Arabic used all over the Arab world, but in reality, there are some differences especially in pronunciation. According to Baghoul (2007) the Gulf countries pronounce the vowels in [ʔakal a] to eat and [na:ma] to sleep as central vowels even though they are not affected by neighboring emphatic consonants. However, most of the countries of the Middle East and North Africa pronounce them as front ones except when they are affected by neighboring emphatics (cf. Bouhadiba, 1988; Bouhania, 2012).

2- Arabic Consonants

Arabic has a rich consonantal system that consists of twenty-eight (28) consonants. Here the reference is not to the alphabet but rather to the sounds. Below is a brief description of the consonants of Modern Standard Arabic according to the place and manner of articulation in addition to the voicing aspect.

[b] voiced bilabial stop

The lips are firmly pressed causing the air to be stopped in the oral cavity. It occurs in all positions; initial as in [ba:b] door, mid position as in [ra:bɪha] to win, final position as in [hæl i:b] milk.

[t] voiceless non-emphatic denti-alveolar stop

The tip of the tongue comes in a firm contact with the part of the gums covering the root of the upper incisors. The vocal cords do not vibrate; it is a voiceless sound (V-). It occurs in all positions; initial as in [t amr] dates, mid position as in [kat aba] to write, final as in [za jt] oil.

[d] voiced denti-alveolar stop

The articulation of this sound is the same as that of [t] i.e. the tip of the tongue comes in a firm contact with the part of the gums covering the root of the upper teeth. The vocal cords vibrate; hence it is voiced (V+).

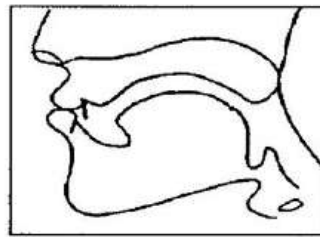


Figure1 /b/

It occurs in various positions; initial as in [dæxala] to enter, mid as in [qad ar] destiny, final as in [bard] cold.

[t̤] voiceless emphatic dental stop

The articulation of this sound is the same as that of [t] and [d] the only difference is that in [t̤] the back of the tongue is raised towards the soft-palate. The vocal cords do not vibrate. It occurs in all positions; initial as in [ʔabi:b] doctor, mid as in [māʔar] rain and final as in [baʔ] ducks.

[d̤] voiced emphatic dental stop

The tip of the tongue comes in firm contact with the root of the upper teeth, the tongue is grooved and the back is raised towards the soft palate. The vocal cords vibrate. Most Egyptians and some Maghrebis tend to pronounce [d̤] as [t̤]

Al-ani (1984) suggests that the general tendency is to make [ð] as [d̤], the alternative use is allowed in Quran reciting. [d̤] occurs in all positions; initial as in [ðaba:b] fog, mid as in [raðe:ʔ] baby and final as in [ʔarð] earth.

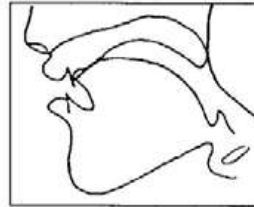


Figure2

[k] voiceless velar stop

This sound is usually described as follows; the back of the tongue is firmly pressed against the velum, totally blocking the passage of air. The vocal cords do not vibrate. It occurs in all positions; final as in [k al b] dog, mid as in [ʔ a k a l a] to eat and final as in [s a m a k] fish.

[q] voiceless uvular stop

The back of the tongue is pressed against the uvula, causing the air to be blocked; the compressed air is released with an explosion. The vocal cords do not vibrate. It occurs in all positions; initial as in [q a r a ʔ a] read, mid as in [r a q a d a] slept and final as in [t a r a q] proper name.

[ʔ] glottal stop

The air is completely blocked in the larynx then released with a little explosion. The voicing feature depends on the quality of the sound following. It occurs in all positions; initial as in [ʔ a m a r a] ordered, mid as in [s a ʔ a l a] asked and final as in [q a r i ʔ] reader.

[f] voiceless labio-dental fricative

This sound is articulated when the lower lip is raised towards the alveolar ridge, the air is released with friction. According to Baghouli (2007), this sound has no counterpart in Arabic. It occurs in all positions initial as in [f a t a h a] opened, mid as in [t u f f a h a] apple and final as in [s a q f] ceiling.

[θ] voiceless interdental fricative

The air forces its passage through the constricted space between the tip of the tongue and the upper incisors causing friction. The vocal cords do not vibrate. Baghouli suggests that [θ] is realized as the voiceless dental stop [t] and as some of its variant (2007). It occurs in all positions; initial as in [T a l a : θ a] three, mid as in [m i T l] similar to, and final as in [m u θ a l l a T] triangle.

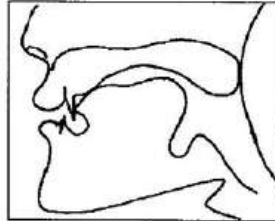


Figure3 [ð]

[ð] voiced interdental fricative

It is the counterpart of [θ], but it is voiced. It occurs in all positions; initial as in [D̤a:l rka] that, mid as in [muhaD̤ab] polite and final as in [laði:D̤] tasty.

[d̤] voiced emphatic interdental

The back of the tongue is raised towards the velum. The air fills the oral cavity and forces its way through the constricted passage between the tip of the tongue and the upper teeth. The vocal cords vibrate. It occurs in all positions initial as in [θ̤ɒfr] nail, mid as in [nɑθ̤ɑra] to see and final as in [hɛfθ̤] to save.

[s] voiceless alveolar fricative

When articulating this sound, the front of the tongue comes near the alveolar ridge; the tip of the tongue is behind the upper incisors. The air forces its passage in the constricted space between the tongue and the alveolar ridge causing audible friction. The vocal cords do not vibrate. Modern Arab linguists and phoneticians classify [s, ʃ, z, ʒ] as sibilant sounds. [s] occurs in all positions; initial as in [sahl] easy, mid as in [hæsən] good and final as in [χæs] salad.

[z] voiced dental fricative

It is the voiced counterpart of [s], it is also a sibilant sound. The vocal cords vibrate. According to Baghouli [z] is voiced, oral, alveolar, consonantal, non-syllabic and continuant (2007). It occurs in all positions; initial as in [za:ra] visited, mid as in [naZl] hotel and final as in [ramZ] symbol.

[ʂ] voiceless emphatic alveolar fricative

Generally, [ʂ] is produced similarly as [s] but the back of the tongue is raised towards the velum. The vocal cords do not vibrate. It occurs in all positions; initial [ʂɑbɑ:h] mid as in [mɪʂjada] a trap and final as in [rɑqʂ] dance (n).

[ʃ] voiceless alveo-palatal fricative

This consonant sound is produced by the tip of the end of the blade of the tongue in light contact with the alveolar ridge and the front of the tongue is raised towards the hard palate. The vocal cords do not vibrate. It is a sibilant as [s] and [z], and it occurs

in all positions; initial as in [Sams] sun, mid as in [mɪSt] hair brush and final as [mɪʃmɪS] apricot

[ʒ] voiced palatal stop

When producing this sound, the front of the tongue comes in contact with the middle part of the hard palate and then it is released slowly. The vocal cords vibrate. It is a sibilant sound, too. It occurs in all positions; initials [Za:ʔa] to come, mid as in [faZʔatən] suddenly and final as in [murʊ:Z] fields.

[χ] voiceless velar fricative

The production of this sound is described as follows; the back of the tongue is raised and retracted towards the uvula. The air is forced through the confined space causing the uvula to vibrate. The vocal cords do not vibrate. It occurs in all positions; initial as in [Xærɪf] fall, mid as in [jaXt] boat and final as in [χu:X] peach.

[ɣ] voiced velar fricative

It is the voiced counterpart of [χ]. It occurs in all positions; initial as in [ʔɑsala] to wash, mid as in [raʔi:f] bread and final as in [fa:rɪʔ] empty.

[h] glottal fricative

This sound is articulated at the glottis. The air flows with little friction. According to Al-annani (2008, p.48) the voicing of this sound depends largely on its environment. It occurs in all positions; initial as in [ha:tɪf] cell-phone, mid as in [naɦr] river and final as in [ʔɪtɪʒa:h] direction.

[ħ] voiceless pharyngeal fricative

This sound is released by approximating the dorsum to the wall of the pharynx. The air escapes through the constricted space with audible friction, the vocal cords do not vibrate. This sound occurs in all positions; initial as in [ðæfɪla] party, mid as in [bæðr] sea and final as in [sɔtð] surface.

[m] voiced bilabial nasal

In the articulation of this sound, the air is completely blocked in the oral cavity. There is no voiceless counterpart to [m]. It occurs in all positions; initial as in [mawza] banana, mid as in [qamər] moon and final as in [ʔalam] flag.

[n] voiced dental nasal

In the production of this sound the blade of the tongue is firmly pressed against the root of the upper teeth and the alveolar ridge. The velum is lowered to allow the air to flow in the nasal cavity. [n] can occur in all positions; initial as in [na:ma] to sleep, medial as in [ʒanu:b] south and final as in [mɪhan] jobs.

[l] non- emphatic lateral

The front of the tongue is firmly pressed against the root of the upper teeth, the air flows on one or both sides of the tongue. [l] can occur in all positions; initial as in [l æhm] meat, medial as in [hæ l q] uvula and final as in [ʃ akl] form.

[r] alveolar semi-vowel

This sound is made principally with the tip of the tongue held close to the alveolar ridge. The central part of the tongue is lowered with a general contraction of the tongue creating a retroflexion. The air flows liberally. The vocal cords do not vibrate. [r] occurs in all positions; initial as in [r ɔdʒul] man, medial as in [mar ʔa] woman and final as in [t amr] dates.

[j] palatal semi vowel

According to Al-annani (2008, p.52) [j] is articulated by the tongue assuming the position for [i] and moving directly to the position of the following sound. The lips are neutral. This sound occurs in all positions; initial as in [j ad] hand, medial as in [ʔaj a.m] days, and final as in [ʃ aj] tea.

[w] labio-velar semi-vowel

This sound is initiated as a high back vowel, the back of the tongue is raised in the direction of the velum but not close enough to make contact. This sound occurs in all positions; initial as in [w ard] roses, medial [ma w z] bananas and final as in [hul w] sweet.

3- English and Arabic consonants compared

Some English consonants are similar to the students' native ones although they are few. For instance, [b] exists in Arabic and English, but in English it has a voiceless counterpart [p] which is a distinct phoneme. Unlike Gulf learners who tend to have serious problems pronouncing [p], Algerian students do not have issues with this consonant because they are accustomed to French.

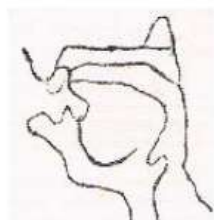
English [t ,d] are alveolar i.e., they are made with the tip of the tongue touching the alveolar ridge, while in Arabic they are dental i.e., the tip of the tongue touches the teeth. They may be a little bit different from their counterparts in English. This explains to some extent the impression of a foreign accent the listener may notice when foreign learners try to transfer them into English.

**Figure4 Arabic [t, d]****Figure5 English [t, d]**

[k] Exists in both languages; English [k] is similar to its Arabic counterpart. Hence, it may not cause any learning difficulty.

[g] is the V+ counterpart of English [k], it is not found in Standard Arabic but exists in many dialects (Bouhania, 2007). Algerian learners do not encounter any problem to pronounce this sound.

[θ, ð] in Arabic are considered as interdental fricatives while they are dental fricatives in English. Al-annani (2008, p.65) says "[θ, ð] are interdentals, their production involves a firm contact with the upper teeth." For some speakers [θ, ð] are identical to those of Arabic.

**Figure6 Arabic [T, D]****Figure 7 English [T, D]**

[l] Similar to English [l], Arabic has two allophonic variations of [l]; clear [l] and dark [l] however, the most frequent is the clear [l].

In Arabic clear [l] is pronounced with the tip of the tongue touching the upper teeth, the front of the tongue is raised towards the hard palate allowing the air to escape on both sides. On the other hand, English clear [l] is pronounced with the tip of the tongue touching the upper teeth. According to Gairdner (1960, p.22) English clear [l] occurs before vowels and semi vowel [j], for instance [lɪv] live. Arabic clear [l] occurs in all positions.

English dark [ɫ] occurs in final position, after a vowel before a consonant; for example [tɛɫ] tell. In Arabic dark [ɫ] is found only in the word [ʔɑɫ ʔɑh] 'Allah, God'. It is an emphatic sound in this latter case.



Figure8 Arabic clear [l]



Figure9 English clear [l]



Figure10 Arabic dark [ɫ]

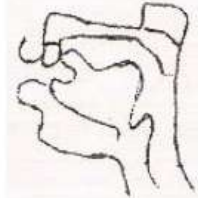


Figure11 English dark [ɫ]

Arabic [n] has almost the same pronunciation as its English counterpart although it is considered dental nasal in Arabic and alveolar nasal in English.

Phonetically speaking, Algerian learners of English tend to have no difficulty pronouncing [n] unlike the velar [ŋ] which is somehow difficult to learn.

RP considers [ŋ] as an independent phoneme produced when the back of the tongue makes complete closure with the velum. According to Baghoui (2007) some Algerian learners face a difficulty in pronouncing [ŋ] in ing, thus they substitute it with [ŋg] or even [n]. This situation is the result of interlingual transfer from French.



Figure12 Arabic [n]



Figure13 English [n]



Figure14 English [N]

[s, z]: According to Gairdner (1960, p. 20) the most noticeable difference between Arabic [s, z] and their English counterparts is that in Arabic the hiss is very much stronger and more sibilant than in English.



Figure15 Arabic [s, z]



Figure16 English [s, z]

[ʔ] glottal stop

According to Gimson (1975, p. 167) the glottal stop is prefixed by many English speakers to words which are generally considered to begin with particularly when the vowel is strongly stressed. In Arabic, the glottal stop [ʔ] is functional and can occur in all positions. Jones (1967, p. 161) states that since in Arabic there is no syllable beginning with vowels, [ʔ] is used as a syllable onset. In English it is not so, this sound may be heard as a vowel sound therefore, Arabic speakers may distort the blending between vowels and interrupt the flow of ideas.

[r] According to Gimson (1966 p. 177) in Arabic [r] is a flap, i.e., the tip of the tongue touches the alveolar ridge once when occurring initially or finally and it is a trill, i.e., the tongue tip touches the alveolar ridge twice when occupying a medial position. Opposingly, in English, it is a retroflex, i.e., the tongue is curled back with its tip pointing towards the palate (Roach, 2001, p. 49). The faulty production of this sound may lead to signs of a foreign accent so, the accurate production of English [r] requires hard work from foreign learners of English.



Figure16 Arabic [r]

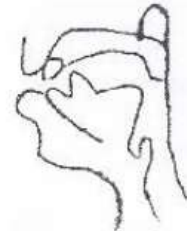


Figure 17 English [r]

Algerian students should have no difficulty with the [f] counterpart of [v] because they are accustomed to French.

Conclusion

This contrastive analysis gives a view of the phonemic and structural differences between English as the target language and Modern Standard Arabic as the learners' mother tongue. It is intended first as a contribution to linguistics, and second, it is hoped that it will be a basis for improved and practical methods of teaching English and Arabic.

Comparing English and Arabic consonants helped us to point out the major differences between the two systems and hence figure out which sounds can represent difficulty for learners and lead to pronunciation problems.

While almost all Algerian students of English should have no difficulty with sounds such as [p, v, t, k] in words like appose, vest, attack, and cat, others fail to pronounce [r, ɲ, l, t] in a correct way and hence give an impression of a foreign accent which most phoneticians consider as an error.

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