Orthography and Pronunciation Systems in English and Arabic: A Contrastive Study

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Abstract

The present paper tries to present the orthography and pronunciation systems of both English and Arabic languages to clarify points of difficulties that Arab students encounter with pronouncing English words. So it presents the orthography and pronunciation systems in English first then that of Arabic. Both similarities and differences are shown in conclusion section of the study as main findings.

1. Introduction

1.1 Research Problem

Every language has its own system of orthography and pronunciation and these systems may differ considerably from one language to another. So, it hypothesized that there are considerable differences in this regard between English and Arabic systems. That is in return having an effect on students' pronunciation. Such differences are hypothesized to be negative, as Arab students' will transfer the relationship of orthography and pronunciation of the Arabic to that of English. Thus, the problem of the study stands out of the belief that two languages share some commonalities but differ in some others and that can result in both positive and negative transfer in language learning process. Arabic phonology, for example, has undeniable effect in the production of English phonology by Arab students.

1.2 Importance of the Study

Some of the major phonological problems that Arab students encounter with English pronunciation prove mainly the interfering effect of their mother tongue. That is why the present study comes to clarify both the similarities and differences between Arabic and English orthography and pronunciation systems. First, to identify if there is any possibility to the phenomenon of language transfer; and secondly to reveal where Arab students' problem(s) may lie. In fact the significance of this study may be attributed to the fact that there are no sufficient researches investigate the nature of the relationship and state of these two systems. That may help in shedding lights on the possible problems and/or facilities that Arab students of English may have if the transfer exists. Consequently, Arab students may come over the phonological problems in English pronunciation that confronted them while learning English as a foreign or a second language. For this purpose, the study stands on the phonetic and linguistic meaning of orthography and pronunciation, their relationship and states in both languages.

1.3 Relevant Scholarship

1.3.1 Definitions of Orthography

The Greek origin word "orthography" is, technically, considered as another term for spelling (Collins & Mees, 2003: 8), though spelling may only be a part of it. Seymour and Erskin (2003: 143f) argue that orthography defines not only the symbols used to write a language, but also the set of rules describing how to write these symbols including spelling, punctuation and capitalization. Kreidler (2004: 291) defines orthography as the writing system used for a language. Recent definitions of orthography reflect to some great extent a similar meaning, where orthography is defined as the writing of a word or words with necessary letters and diacritics present in an accepted standard order (www1, 2011:1). In another word, orthography is an arrangement of letters that form a word or part of a word or it is the process of forming words by putting letters together (www2. 2011: 1). So the working definition of orthography, then, is a graphic representation of spoken sounds.

1.3.2 Definitions of Pronunciation

Pronunciation, as is generally known, is the foundation of speaking. Richards et al. (1992: 296) illustrates it as "the way sounds are perceived by the hearer". A more familiar definition of pronunciation is the manner or the act of speaking a word or a language especially a way that is accepted or simply be understood (utterance of speech). As such, Yates (2002: 1) shows that pronunciation means uttering the sounds that one uses to communicate with others. It requires such things as: paying attention to the sounds of a language (segments), aspects of sound system beyond the level of individual sounds (suprasegmental aspects) and to the voice quality), this is on one hand.

On the other hand, pronunciation is considered as a core part of second/ foreign language learning. Yates (2002: 1) comments that learners with correct pronunciation are more likely to be understood even when they make errors in other areas. He explains more that learners with poor pronunciation will not be understood, even when, for instance, their grammar is perfect.

Kriedler (2004: 36) states that without correct and clear pronunciation, learners may not be able to understand the native speakers of the language they are learning and be poorly perceived by them. Successful communication, therefore, can not take place without good pronunciation (Thanasonlas, 2009: 2). Also pronunciation, he adds, has an important social value and is related to prestige. Learners with pronunciation errors may be judged as, uneducated, lacking knowledge or incompetent.

1.4 Research Design

Noting that the study is restricted to English R.P or as is also known as BBC English (is that variety of English used by educated native speakers in the south east England. It is the one that is concentrated one in Iraqi University teaching (Roach, 2002: 9))and to Standard Arabic (is that variety of Arabic used by educated native speaker in the entire Arabic-speaking world and taught in schools to native and non-native speakers of the language(cf.Al-Ani,1970:25)).

An account of the findings of this study is presented in the conclusions. Moreover, these findings are hoped to provide rich information to the teachers and Arab students of English as well. It is hoped that taking these findings into consideration could help them to attain an accurate pronunciation of English.

2. Method

2.1 Orthography and Pronunciation in English

2.1.1 English Pronunciation and Orthography Relationship

English is not phonetic in its nature. That is no one-to-one correspondence between the letters of English and its sounds. This may be the main cause behind having very highly contradictory insights of English pronunciation and orthography relationship. According to the adopted insight, linguists seem to be divided into two groups: an opponent group that views English orthography as unpredictably capricious; and proponent group that regards English orthography, to some extent, as infallible guide to its pronunciation. Apparently, there is no confine to such insights to a particular historical period and shedding light on them can be as follows:

2.1.1.1 The Insights of the Opponent Linguists

The insights of three different linguists are chosen to reflect clearly how English pronunciation and orthography relationship is viewed by this group: English orthography being described as "aberration" and "irrational spelling" by Saussure (1959: 28) may be enough to reveal obviously his unhappy insight. Saussure justifies such a strong reaction of him by considering the two effects of adding the silent letter "e" to the end of a monosyllabic word like hat. This silent "e" lengthens the vowel sound in the original word, and creates a second syllable to the original word, e.g. hat /æ/, hate /eI/. To him (Ibid) such facts are among the "tyrannous" and "monstrous" effect of orthography on pronunciation. Saussure's discontent is reflected over when he states that it is the spoken not the written form of language which constitutes the object of linguistics, but the spoken form is "so intimately bound to its written image that the latter manages to usurp the main role". Thus, Saussure

believes that writing obscures language, since the written words tend to replace the spoken ones in the mind (p. 24ff).

Lack of correspondence between orthography and pronunciation is attributed, to a number of reasons, but the most important of which are:

"1. Language is constantly evolving, whereas writing tends to be stable. The result is that a point is reached where writing no longer corresponds to what it is supposed to record.

2. If an alphabet is borrowed from another language, its resources may not be appropriate for their new function; expedients will have to be found (e.g. the use of two letters to designate a single sound).

3. The influence of etymology also helps to widen the gap between spelling and pronunciation. (ibid, 27ff)

Jones (1972: 6f) adopts a similar view. He claims that the discrepancies between English pronunciation and orthography need not much to be noted. The number of possibilities available to pronounce a single vowel letter, e.g. "a" in gate, father, fall, any…etc., and in reverse to spell a single vowel sound, e.g. /i:/ meet, meat, achieve, seize…etc., can simply prove that.

O'Connor (1980: 7f) rejecting the idea of correspondence, he argues that English spelling is difficult to some extent, since it provides one with no help to know "what sounds the letters stand for". For instance, the letters "i, y, u, o, e and a" in city, busy, women, pretty, and village respectively, all stands for the vowel sound /I/. An instance like this is what makes English spelling be described as notoriously difficult, extravagant and vexing.

2.1.1.2 The Insight of the Proponent Linguists

The other reversing three insights once again have been taken up from different linguists; the presentation of these insights chronologically can be shown as follows:

Wijk (1966: 8f) considers it an exaggeration to think that English pronunciation is so confused, as most people are apt to do. Instead, he optimally shows the reverse and emphasizes that:

"The vast majority of English words, about ninety to ninety-five percent of the total vocabulary, do in fact follow certain regular patterns in regard to their spelling and pronunciation. It is, therefore, well worth making oneself familiar with the general rules that govern English".

For instance, Wijk shows that the vowel letter "a" has two principal pronunciations either short /æ/ or long /eI/, and a number of diverging ones. Knowing the correct pronunciation of this vowel, depends on its context, i.e. whether it is surrounded by a consonant or a vowel letter, occurs after or before a particular sound and pronounced with a similar degree of stress (see table (2ff) on page (50ff) for more details).

Admitting that English sound system is far from being phonetic does not prevent Chomsky and Halle (1968) from supposing that a logical system of effective regularity emerges on a

more abstract level. To them the inaccurate relationship between letters and sounds is to preserve an accurate one between symbol and meaning. This is what differentiates, for instance, to from two or too. A scientific practical realization of such insights can be seen in "The Sound Patterns of English" in 1968. In this book Chomsky and Halle (1968: 49) express such encouraging claim no fewer than six times, saying:

"It is noteworthy, but not too surprising that English orthography, despite it's often inconsistencies, comes remarkably close to being an optimal orthographic system for English."

Dickerson, on the other hand, has a significant contribution in this regard. The following words of him can reveal part of the way in which he views English orthography:

"The ideal spelling system, we are told, is the one in which there is a single graph (symbol) for each phonological segment (sound) in the language. English orthography is not so irregular that graphs (symbols) are used idiosyncratically in every word. That would be chaos. Between extremes of a one-to-one symbol-sound correspondence at all, there are spelling patterns which give English orthography its system." (Dickerson, 1980: 20).

2.1.2 The State of English Vowel Orthography

As a matter of fact, twenty-six letters in all are what make up the orthography system of English. Only these five letters "a, e, i, o, and u" are vowels, whereas the rest twenty-one letters are consonants. Among the total number of the letters, only "y" is the troublesome one. At times, it stands for a vowel sound especially when coming at the end or somewhere in the middle of a word, as in city, physical. Other times, particularly at the beginning of a word, it stands for a consonant, as in yet (Kenworthy, 1987: 100f).

Another important aspect to be pointed out is that these five vowel letters make twenty different vowel sounds. That is, the correspondences between vowel sounds and letters are very complex. Despite that there are some irregularities and some regularities regarding English Orthography.

As a proof of English pronunciation and orthography irregularities Wijk (1966: 56f) argues that "ough" is the most notorious group of letters. While it may lie in about thirty words in all, "ough" displays no less than nine different pronunciations in them, as in:

/aʊ/drought	/ɒf/cough	/ʌf/rough	/ɔːt/ ought	/ʌp/ hiccough	/ɔː/ thought
/əʊ/though	/ɔːk/hough	/ə/ thorough			

While the regularity can be shown, as Kelly(2000: 123) discusses, by shedding lights on such features as:

(a) Single Vowel Letter and Sound Association

Each English vowel letter, however, has, at least, two different principal associated sounds in addition to some other less common ones. For instance, the vowel letter "e" has the principal

sound value /e/, as in exit; and /i:/, as in scene, but it has also the secondary pronunciation of /I/, as in exact; and /eI/, as in fete (cf. Kenworthy, 1987: 94).

(b) Vowel Letter Combinations and Sounds

English orthography has what is known as vowel diagraphs. Wijk (1966: 46) defines a vowel diagraph as a combination of two vowel letters that stands for a single vowel sound, either a monophthong, as in each /i:tʃ/ or a diphthong, as in break /breIk/. A diagraph can have two or three different sound associations. Only one can be considered as principle, whereas the other(s) as a secondary or exceptional ones. For instance, in the majority of words containing "ea" the diagraph will be pronounced as /i:/, as in eat (Kelly, 2000: 124).

(c) English Vowel Letters Behave According to their Context

Predicting the correct pronunciation of many vowel letters depends, to a great extent, on the context in which they may fit. For instance, many vowel letters usually have their short sound-value, when being surrounded by consonant ones, as in con /ɒ/ and cut /ʌ/, whereas the addition of final "e" makes the preceding vowel say its name. That is, this final silent "e" marks an altered pronunciation for other vowels, as in cone /əʊ/ and cute /ju:/(Kenworthy, 1987: 96; Kelly, 2000: 124).

*2.2 Orthography and Pronunciation in Arabic*

2.2.1 Arabic Pronunciation and Orthography Relationship

To some great extent, Arabic is phonetic: "one letter represents one sound, and 'silent' letters (like 'gh' in English 'night') and digraphs (like English 'sh' or 'ea') do not occur". However, there are some exceptions. Such exceptions can be seen mainly with vowels. Arabic texts usually has long vowels but omit short ones, so the readers of such texts must use their knowledge of the language to supply the missing vowels. However, in the education system and especially in classes on Arabic grammar these vowels are used as they are significant to the grammar. An Arabic sentence can have a completely different meaning by a subtle change of the vowels. This may explain why in important religious texts such as the Qur'ān the short vowels are used. Also, children's books, elementary-school texts, and Arabic-language grammars in general will include diacritics to some degree. These are known as "vocalized" texts. In the Arabic handwriting of everyday use, in general publications, and on street signs, short vowels are typically not written, and such texts are known as "unvocalized" texts.

The short vowels in Arabic, usually known as /ħarakaat/ (inflexions) are /i, a, u/, which usually take the form of diacritics placed either above or below a consonant. They are representations of the Arabic terms /kasra/, /fatħa/, and /damma/ respectively. When placed in a particular phonetic environment, the articulation of an Arabic consonant is not released, nor is the movement of the articulators complete during its production unless by aid of these sounds. In other words, the carrying power is associated with these sounds in Arabic, which was a conclusion correctly arrived at by Al-Khalil hundreds of years ago. Adds to that, all Arabic vowels, short and long, follow a consonant; in Arabic, words like "Ali" or "alif", for example, begins with a consonant: "Aliyy", "alif". So, Words are a combination of

consonants and short vowels *(مَرَضٌ، مَلِكٌ)* (Al-Muṭṭalibi, 1984: 73)

Rubba (2009:3) argues that reading correctly in Arabic needs vowelizing word endings along with their grammatical function in the sentence, which is "an advanced phonological and syntactical ability". Skilled readers are expected to read mainly texts without short vowels *(يَتَعَلَّمُ)*, in contrast poor and beginners readers read with short vowels *(يتَعلم الطلاب في المدرسة .)*. *الطُّلَّابُ فِي المَدْرَسَةِ* A number of researches indicate that short vowels affected reading correctly among beginners, poor, dyslexic, and skilled readers in reading isolated words and texts. Such a result is also noticed among adult university students and university graduates who specialized in Arabic. Thus, Arabic does not have one-to one letter to sound correspondence. It is in a need to the use of vowelized Arabic is considered shallow or simple orthography and unvowelized Arabic is considered deep or complex orthography. An orthography is considered shallow when unequivocally represents its phonology. That is, when it follows simple grapheme–phoneme correspondences. In contrast, in a deep orthography the relation of phonology to orthography is more complex. The Arabic orthography, consequently, has two optional forms: fully and partially vowelized. Fully vowelized orthography includes both letters and diacritics that practically represent all consonants and vowels and can be considered a shallow orthography. Partially vowelized orthography, which includes only letters so that short vowels are not represented, is hence considered a deeper orthography (Levin, 2007: 4). Rubba (2009:2) reports that many partially vowelized words are homographs, and therefore they can be read as different lexical items. The diacritics that mark the short vowels (in fully vowelized orthography) often clarify the correct pronunciation of the written word. Let's consider this example
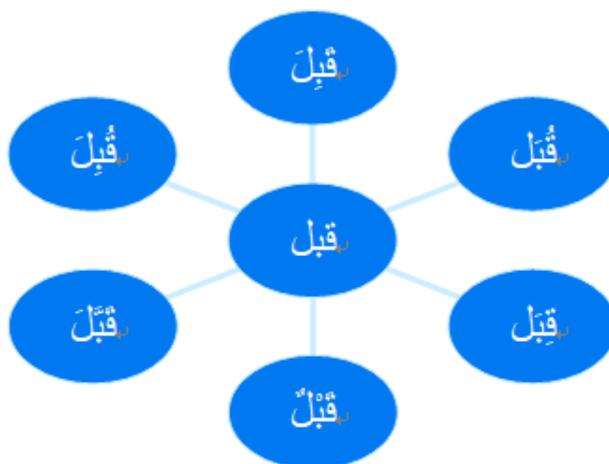
Thus the diacritics that mark the short vowels are very important for correct pronunciation and orthographic representation because this language contains a number minimal pairs of words that differ from each other only by these diacritics and their absence may cause some ambiguity and/or confusion (Ibid).

2.2.2 State of Arabic Orthography

The Arabic alphabet, as Abu-Chacra (2007: 23) argues, or Arabic abjad is the Arabic script as

it is codified for writing the Arabic language. As far as the writing system is concerned, Arabic script is cursive and it is written from right to left having no capital and small letters. Unlike cursive writing based on the Latin alphabet, the standard Arabic style is to have a substantially different shape depending on whether it will be connecting with a preceding and/or a succeeding letter, thus all primary letters have conditional forms (allographs), depending on whether they are at the beginning, middle or end of a word, so they may exhibit four distinct forms (initial, medial, final or isolated). However, six letters (ا د ذ ر ز و) have only an isolated or final form, and so force the following letter (if any) to take an initial or isolated form, as if there were a word break. For example, أرارات (Ararat) has only isolated forms, because each letter cannot be connected to its adjacent one. Some letters look almost the same in all four forms, while others show considerable variation. Generally, the initial and middle forms look similar except that in some letters the middle form starts with a short horizontal line on the right to ensure that it will connect with its preceding letter. The final and isolated forms are also similar in appearance but the final form will also have a horizontal stroke on the right and, for some letters, a loop or longer line on the left with which to finish the word with a subtle ornamental flourish. In addition, some letter combinations are written as ligatures (special shapes), including lām-'alif.[3] Most Arabic letters have more than one written form(ع، عـ، ـع/ ف،فـ،ـف). Thus, letters are divided into categories according to basic letter shapes, and the difference between them is the number of dots on, in or under the letter(ب،ت،ث/،س،ش/،ج،ح،خ/،غ،ع/) Diacritical marks/ short vowels that contribute phonology to the Arabic script بِ،بَ،بُ،بْ،بّ،بٍ،بٌّ،ب .

In contrast, the sound system of Arabic includes twenty-eight consonant sounds and six vowel sounds. So, the vowel system of Arabic has a basic structure of six distinctive vowels, defined as 'almadd' sounds. They are generally taken to include the short vowels /i/, /a/, /u/ and their long equivalents /i:/, /a:/ and /u:/—although the actual pronunciation of these phonemes may vary widely. The short vowels /a/, /u/, and /i/ are represented through an optional system of superscripted diacritics. In general, long vowels as always marked through letters are produced easer and/or better than short vowels (Levin, 2007: 5). Rubba (2009: 3) says that Arabic as in all Semitic languages is said to work along the "WYSIWYG ('What you see is what you get') principle" in that their spelling systems precisely represent their phonemic inventories, i.e. the sounds used in them. Arabic language, like any other Semitic languages, in addition, is based on the concept of 'consonantal root system'. In fact, Arabic words are derived from a 'root' (usually a verb) which consist of three letters usually. By adding prefixes or suffixes to the root, the root gets alternation to create other new words. These prefixes and suffixes are most either long or short vowels. That is why she (Ibid) argues that it seems both literary and spoken Arabic are rich with morphological structures, and the similarity of written words, phonologically and visually, usually relate to the same root, this causes different morphological types of errors while reading real words especially if the short vowels are not presented in the form of diacritics.

3. Contrastive Analysis

The contrastive analysis intended here will be conducted at the meaning, relationship, and states levels.

1). Meaning: there is a rather complete sameness between English and Arabic explanation of both orthography and pronunciation. Both languages reflect that orthography is a graphic representation of spoken sounds. Similarly, pronunciation, in both languages, refers to the process or the style of uttering a word or a language particularly in an accepted or generally understood (utterance of speech) way.

2). As far as orthography and pronunciation relationship is concerned, English is said to be not phonetic, or has deep orthography, in the sense that it does not have one-to one correspondence between its letter and its sounds. On the contrary, Arabic is said to be to some great extent phonetic. In other words, Arabic has a shallow orthography if the short vowels are shown in the orthographic system by the diacritics. Yet, it may have somewhat a deep orthography if the short vowels are not shown in the orthographic system.

3). The large number of English sounds if contrasted to the five vowel letters of English may be the main reason behind the non-phonetic nature of English pronunciation. That may be what led to having proponent ant opponent insights of the relationship of English orthography and pronunciation. Whereas there is no such contradictory insights related to the relationship of Arabic orthography and pronunciation. That may attributed to the fact that Arabic is to some great extent is phonetic.

4). Arabic is non-Latin' alphabets, if contrasted to English as a Latin alphabet. Arabic uses entirely different characters from that of English to represent its sounds. Arabic script usually written from right to left, while English from left to right. However, Arabic alphabet is comparable in size to the 'English alphabet'.

5. The sound system of Arabic includes more consonant sounds and fewer vowel sounds than that of English. Arabic has twenty-eight consonants and only six vowel sounds. English, on the other hand, has twenty-four consonants and twenty vowel sounds.

4. Conclusions

The study presented a survey of orthography and pronunciation notion, state and relationship in English and Arabic especially that of vowel. Depending on this survey, the study comes out with significant points of contrast and similarity between the two languages as far as orthography and pronunciation relationship is concerned. Obviously, from the previous sections, it can be concluded that the contrast are much more than the similarities between the two languages especially in regards to vowel orthography and pronunciation. The main significant contrast cause can be attributed to the fact that English language is not phonetic, while Arabic language is phonetic. English language has twenty vowel sounds for five vowel letters, i.e. it has a deep or complex relation of phonology to orthography. In contrast, Arabic language has six vowel sounds for three vowel letters, in addition to three /ħarakaat/ (inflexions or diacritics), i.e. it has a shallow or simple orthography where its phonology following simple letter–sound correspondences. Consequently, Arab learners being accustomed to sound-letter correspondences in Arabic, will almost always transfer this tendency to English, and will thus provide a spelling pronunciation of the English words, which will in its turn indicate the foreignness of the speaker.

The study, then, has some pedagogical implications, in that it may be useful to linguists and students of general linguistics and/or phonology in both languages. It may also be of help to teachers of English and Arabic when they deal with the orthography and pronunciation, specifically that of vowel, relationship.

Acknowledgments

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