

## **Syllabic Licensing in Iraqi Arabic and Kuwaiti Arabic: A Phonotactic Study**

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### **Abstract**

This paper is a comparative study of syllable phonotactics in Iraqi Arabic ( IA) and Kuwaiti Arabic ( KA). The major concern of the researcher is to arrive at conclusions regarding the potential syllabic structures in the two dialects ( in terms of comparative phonology), and the revelation of identical syllabication principles. The prominent findings of the paper are:

- (1) The onset and coda both in IA and KA license either one or two consonants.
- (2) Both varieties permit syllabic patterning /-c+c-/ across syllable boundary within one and the same word.
- (3) All the possible types of syllabic structures in both varieties are eleven.
- (4) Both varieties show the same distributional characteristics of their syllabic patterning in different word-positions and in monosyllabics.
- (5) The rating of words having the syllable pattern / cvcc/ in KA is higher than the rating of words in IA. This is due to the predominance of the bedouin nature of the former.



البنية المقطعية في اللهجتين العراقية والكويتية: دراسة تراتبية = أ.م.د. محمد أحمد عبد الستار

## البنية المقطعية في اللهجتين العراقية والكويتية: دراسة تراتبية

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### الملخص:

يعد هذا البحث دراسة مقارنة للبنية المقطعية في اللهجتين العراقية والكويتية. يتلخص الهدف الرئيس من هذه الدراسة في تحديد الأنماط المقطعية في هاتين اللهجتين ( من وجهة نظر النظام الصوتي المقارن). وقد توصل البحث إلى النتائج التالية:

- ١- تبدأ الكلمة في اللهجتين إما بصامت واحد أو صامتتين.
- ٢- في حدود الكلمة الواحدة ، قد ينتهي المقطع الأول بصامت وكذلك المقطع المتجاور قد يبدأ بصامت أيضا.
- ٣- بلغ عدد الأنماط المقطعية في كلتي اللهجتين أحد عشر نمطا.
- ٤- تشابه التوزيع المقطعي في اللهجتين في المواقع المختلفة من الكلمة ( أولها ، وسطها و آخرها ) وكذلك ضمن الكلمة الأحادية المقطع .
- ٥- كانت نسبة النمط المقطعي ( صحيح علة صحيح صحيح ) هي الأكثر في اللهجة الكويتية بسبب الطبيعة البدوية لتلك اللهجة.



## 1- Introduction

Many Western as well as Arab investigators have shown special interest in studying different linguistic aspects of Arabic dialects including phonology (e.g. Harrel,1957; Anis, 1961; Erwin, 1963,1969; Cantineau, 1966; Johnstone,1967; Odden, 1978; Sallam, 1980; Ingham, 1982; Holes, 1984, 1989; Al-Bouni et al,2003; Biadsy and Hirschberg , 2009; Al-Shormani, 2010; Abdul Sattar, 2011). The present investigation has been undertaken in an effort to determine if Iraqi Arabic ( IA) and Kuwaiti Arabic( KA) show the same syllabic structure patterns and the same distribution of these patterns in different word-positions and in monosyllabics.

The attempt of studying syllabic structure in IA and KA arises from the researcher's interest in investigating Arabic philology in general and comparative phonology in particular since " speakers of the same language may speak with different accents, these differences being attributable to different regional, social or even purely idiosyncractic conditions" ( James, 1980:72). Besides, linguistic studies have been oriented recently to deal with the phonological topics, among many others, and to shed light on the difficulties encountered by phonology in any given language ( Al-Nu'aimi,1989). Arabic sounds have also received the great care of linguists in the past and recently in that they pointed out their characteristics, their place and manner of articulation which made them clear to any researcher who can judge, through a careful study, whether a given phonological concatenation is permitted in Arabic or not ( Al-Nu'aimi, ibid.).

It is aimed that the findings of the current study will contribute to adding some knowledge about Arabic phonology in general and Gulf Arabic in particular. These findings might be of value to those interested in Arabic dialectology as well.

## 2- Definition of Terms



It has been convenient at the outset of this paper to briefly define the basic terminology that will be referred to later.

## 2.1 The Syllable

One of the major arguments about the syllable among those who accept it concerns the nature of the syllable- is it phonetic, phonemic or phonological? Fudge (1969:254), for instance, has differentiated between two types of syllables: phonetic and phonemic. In his viewpoint, the phonetic syllable represents the norm of pronunciation and consists of bundles of articulatory features. The phonemic syllable provides a foundation for structural description of the language.

A number of scholars ( e.g. Stetson, 1951; Abercrombie, 1967; Gimson, 1970; Jakobson and Halle, 1968; Stageberg,1971) follow the phonetic approach in defining the syllable. Other scholars ( e.g. Robins, 1964; Crystal, 1980; Ladefoged, 1993, Radford et al, 1999, Roach, 2009) view the syllable as a phonological entity.

Other investigators suggest that the term " syllable" should not be used in either a phonetic or a phonological sense. They maintain that the syllable is a linguistic unit composed of phonemes that are concatenated according to certain phonotactic criteria. This view is upheld by MacCarthy ( 1978: 107) who defines the syllable as a " part of a word that can be separated from other parts in accordance with the 'structural rules ' of the given language." Such definition will be accepted in the current study since it correlates with our investigation of the possible syllabic structure and syllabication of both IA and KA that will be determined on the basis of the phonotactic possibilities that govern the phonology of these dialects.

## 2.2 Syllabication

The term syllabication has been generally defined as the division of a word into syllables ( Crystal, op.cit.).

## 2.3 Iraqi Arabic



Iraqi Arabic refers to that dialect used in everyday speech by almost all IA speakers. It is not limited to any particular region in the country, and it can be heard everywhere in Iraq.

## 2.4 Kuwaiti Arabic

Kuwaiti Arabic means that Arabic variety spoken in Kuwait excluding Bedouins.<sup>1</sup>

## 3- Methodology

The material concerned with syllable phonotactics in IA depends mainly on the researcher's intuitive knowledge being a native speaker of this dialect. In addition, a survey to "A Dictionary of Iraqi Arabic" published by Woodhead and Beene (1967) will be carried out. The data related to syllabic structure in KA is mainly collected from a previous work which tackled some distinctive features of KA conducted by Matar (1969). This study was in turn based on Kuwaiti informants. Besides, a comprehensive syllabic analysis was carried out to separate words collected from two volumes of the common Kuwaiti proverbs conducted by Al-Noori (n.d.). The researcher also made use of his personal information on KA which comes as a result of listening to Kuwait radio, Kuwait television and satellite channels over a period of time.

## 4- Research Questions

The current paper investigates the following research questions:

- 1- What are the potential syllable patterns in IA and KA?
- 2- How are these syllable patterns distributed in different word-positions and in monosyllabics?
- 3- Do the two varieties exhibit the same principles of syllabication?
- 4- Which syllable patterns score more frequency in the two varieties?

## 5. Syllabic Structure in Arabic



## 5.1 Literature Review

Syllabic structure in Standard Arabic ( SA) and other Arabic dialects has been examined by a large number of investigators. Anis ( 1961) notes that the researcher needs to divide the continuous speech into syllables. On the basis of these syllables, meters and the permitted word construction are determined. He assumes that word in Arabic is composed of a number of syllables. These syllables are joined together in a concatenated way to compose words. Thus, a word is a part of speech composed of one or a number of concatenated syllables.

Cantineau (1966) investigates the historical development of syllabic structure in Arabic. He contends that the syllable patterning in the Semitic language remains as it is in SA. He states that the syllable in SA begins with a single consonant only. Thus, if there are two consonants within a word, these consonants should be distributed between two succeeding syllables. Therefore, the word / qaTratun/" a drop", for example, is syllabified as /qaT-ra-tun/. The syllable in SA also ends with a vowel in which there is an open syllable, or with a consonant in which there is a closed syllable. He concludes that the rating of long syllables in modern Arabic dialects has become higher than in SA.

Ayyub ( 1968) identifies the syllable as a group of sounds with a peak of sonority. Broadly speaking, he classifies syllables into five types on account of the number of the phonemes that each syllable contains, the type of the vocalic element ( the nucleus), and the final element the syllable terminates with.

In ( 1970), Al-Ani carried out an acoustical and phonological investigation of Arabic phonology. The syllable in Arabic, as analyzed in this study, is based on the contrasted elements that compose its structure. These elements are made up of the segmental phonemes of the language. Each syllable has a main

part that stands out predominantly. This part is referred to as the nucleus of the syllable. Other components are referred to as marginal constituents. Acoustically, the predominant part of the syllable is represented by formant structures and it has more intensity than the marginals.

Al-Antaki ( 1971) recognizes the syllable as a phonological unit larger than the single phoneme. This unit consists of a single vowel ( short or long) with one or more consonants. He classifies syllables in Arabic according to the final element they end with into open, closed and double closed. Syllables in Arabic have also been classified into short, medium and long in terms of their length.<sup>2</sup>

In his study of prominence and syllabication in Arabic, Mitchell ( 1975) exhibits the common structures of syllables in SA in terms of consonants and vowels. He presents six syllable patterns, namely, /cv/, /cvv/, /cvc/, / cvvc/, / cvcc/ and /cvvcc/.

Hassan ( 1979) views the syllable from different point of view. He looks into the syllable as a phonetic, phonological and linguistic unit. For the purpose of simplicity and presentation, he has used different phonetic and linguistic symbols to refer to the common syllable structures in Arabic taking into account the length of the syllable and the final element it ends with.

In (1985), Abdul-Tawwab refers to the syllable as a perception peak to which other sounds, but not always, are added. These sounds precede or follow the peak as in /it/ where the peak is /t /. He presumes that the study of the syllable patterning in any language helps in deciding the forms that are permissible in that language, and in understanding the music of poetry and meters.

Mitchell ( 1956) investigates the phonology of Egyptian Colloquial Arabic (EQA). The sub-dialect chosen in this study was Cairene Arabic. In terms of consonants and vowels, he reports



that this dialect licenses the patterns /cv/, / cvv/, / cvc/, / cvvc/ and /cvcc/. These can be well illustrated by examples such as /darab/ " he hit", / ?aabal/ "he met/, / ?itwagad/ " it was found", /mafhuum/ "understood", and /darabt/ " I ,you hit".

In (1958), Garbell studies the historical phonology of East Mediterranean Arabic dialects ( EMA).<sup>3</sup> In reference to the syllabic structure of these dialects, he admits that these dialects have six syllable patterns, namely, /cv/, / cvv/, / cvc/, / cvvc/, /cvcc/, and / cvvcc/. He maintains that the first two patterns occur freely, while the other patterns occur only in monosyllabic words and in word-final position.

Qafisheh (1977) conducts a comprehensive study of Gulf Arabic. The study mainly presents phonological, morphological, and syntactic analyses of Gulf Arabic. In a brief reference to the syllable in this dialect, Qafisheh (ibid.) assumes that syllable in Gulf Arabic comprises either a short or a long vowel. He elaborates that every syllable may have one or two consonants initially. As for syllabic segmentation, he proposes that when there are two consonants in word-medial position, whether they are geminate or non-geminate, the first consonant should serve as a coda of the preceding syllable and the second as the onset of the following syllable.

A study on selected features of the phonology and morphology of the Omani

Arabic dialects was presented by Holes ( 1989). This study is mainly intended to place these dialects in a peninsula-wide typological framework. Among phonological topics, the researcher investigated syllable structure. He found that most Omani dialects show open and closed short syllables of the pattern /cv/ and /cvc/. However, the syllable pattern /ccv/ was elicited in the Najdi and Najdi-descended dialects. The examples provided were /Hmisa/ " turtle" ( Ras al-Hadd), / rguba/ " neck" ( Wadi





Aswad), / HTibteen/ " two pieces of wood" ( Suhar). Another finding was that the most common syllable forms in past tense were / cvcv(c)/ as in / gitiloh/ " they killed him" ( Harasis), / kitibuhum/ ' they wrote them" ( Duru), and / kubraw/ " they grew old" ( Suhar).

## 5.2 Syllabic Structure in Iraqi Arabic

The analysis of syllabic structure of IA undertaken in this paper is based on the findings revealed by the researcher's investigation of ( 1989) since it is, as far as he knows, the most in-depth work that tackled this phonological area. However, in the present study, a different sample for syllabic analysis adopted from a previous related work carried out by Woodhead and Beene ( op.cit.) is deployed. The following are the potential syllable patterns in IA with examples:<sup>4</sup>

**Table (1): Potential Syllable Pattern in IA**

Pattern No.	Syllable Pattern	Example	Meaning	Description
1	/cv/	/ 9Igdɑ/	knot	short, open
2	/ccv/	/nxɑlɑ/ <sup>5</sup>	a date-palm	medium
3	/cvv/	/9ɑɑlɑm/	world	medium
4	/ccvv/	/hnaɑ/	here	long, open
5	/cvc/	/maxbɑz/	bread shop	medium, closed
6	/ccvc/	/stɑD9ɑf/	to consider weak	medium, closed
7	/cvcc/	/ʃɑft/	shift	long, closed
8	/cvvc/	/tɪm/	figs	long, closed
9	/cvvcc/	/nɑɑr/	fire	long, closed
10	/ccvvc/	/yTɪr/	to fly	long, closed
11	/ccvcc/	/Sfɑr/	he turned yellow	long, closed



In so far as the frequency of the above cited syllable patterns is concerned, the first eight categories occur more frequently than the last three; the four open categories represent the most frequent patterns whereas the closed ones are the least frequent.

As for their syllabic distribution, syllables of /cv/, /cvv/, /cvc/ and /cvvc/ elements occur word-initially, word-medially, and word-finally as shown in the following examples.

**Table (2): Distribution of Syllable patterns in IA**

Pattern No.	Syllable Pattern	Initially	Medially	Finally
1	/cv/	/s <u>i</u> ma/ 'sky'	/ma <u>S</u> T <u>a</u> ba/ 'bench'	/fir <u>q</u> a/ 'team, band'
2	/cvv/	/saa <u>9</u> a/ 'hour, watch'	/dafa <u>a</u> ti <u>r</u> / 'notebooks'	/bi <u>9</u> ti/ 'Did you sell it'
3	/cvc/	/dax <u>l</u> a/ 'the wedding night'	/mu <u>s</u> ta <u>f</u> afa/ 'hospital'	/ma <u>x</u> fa <u>r</u> / 'guard-post'
4	/cvvc/	/we <u>e</u> nhu <u>m</u> / 'Where are they?'	/saa <u>9</u> a <u>a</u> thu <u>m</u> / 'their watches'	/xab <u>b</u> ba <u>a</u> z/ 'baker'

Syllables of the structures /cvcc/ and /cvvcc/ either occur word-finally as in /yiHtarr/ 'to become hot' and /miHtaarr/ 'confused', or they stand alone in monosyllabic words. On the other hand, syllables of /ccv/, /ccvc/, /ccvv/, and /ccvvc/ elements are always used word-initially as in /staHaqq/ 'he deserved', /staHyaf/ 'to consider something wrong', /flaaHa/ 'cultivation' and /dreewliyya/ 'drivers' in the order mentioned.

The number of syllables in an Iraqi word is identical to the number of the vowels it contains, whether these vowels are short or long. Consequently, there is one syllable in /bass/ 'enough' and /deen/ 'dept', two in /Gazwa/ 'raid' and /diinaar/ 'dinar', three in /makHala/ 'a long necked jar for kohl', four in maktabatna/ 'our library' and so on.

IA is also characterized by the feature that the first syllable of a word either begins with one or two consonants. Syllables other than the first always begin with one consonant only. Accordingly, in case where two consonants, whether they are identical or non-identical, occur in the middle of the word, the syllable division is located between two consonants ( cf. Abdul Sattar, 1989). This is illustrated in words like /yif-di/ 'to sacrifice', /sik- kiir/ 'habitual drinker' and /Hat-tam/ 'to make necessary'.

### 5.3 Syllabic Structure in Kuwaiti Arabic

The corpus of data collected on KA reveals that this dialect, as in the case with IA, comprises eleven syllable patterns. The following table outlines all the possible syllable structures in KA.

**Table (3): Potential Syllable Patterns in KA**

Patten No.	Syllable Pattern	Example	Meaning	Description
1	/ cv /	/ <u>tabi</u> /	she wants, you want	short ,open
2	/ ccv/	/ <u>wriga</u> /	paper	medium, open
3	/ cvv/	/ <u>GaaDi</u> /	judge	medium, open
4	/ ccvv/	/ <u>kweeti</u> /	Kuwaiti	long, open
5	/ cvc/	/ <u>maynuun</u> /	crazy	medium, closed
6	/ ccvc/	/ <u>Sbayyaan</u> /	youths	medium, closed
7	/ cvcc/	/ <u>9aTT</u> /	give	long, closed
8	/ cvvc/	/ <u>naad</u> /	call	long, closed
9	/ cvvcc/	/ <u>yaart</u> /	neighbour	long, closed
10	/ ccvvc/	/ <u>Truuf</u> /	travellers	long, closed
11	/ ccvcc/	/ <u>Sbayy</u> /	young boy	long, closed



The data show that the first eight patterns occur more frequently than the last three patterns in KA. The four open categories constitute the most frequent structures whereas the closed ones are the least frequent.

Concerning their syllabic distribution, forms of / cv/, / cvv/, /cvc/, and / cvvc/ elements occur in different word-positions as is indicated below:

**Table (4): Distribution of Syllable Patterns in KA**

Syllable Structure	Initially	Medially	Finally
/ cv/	/ yuba / 'my father'	/ 9indina / 'with us'	/ fīḏi/ 'so'
/cvv/	/Guuzi/ 'barbecued little sheep'	/sībīḏfa/ "ingot, a proper name"	/ ?a9Tī/ 'Shall I give him?'
/cvc/	/kīllm/ 'every'	/mitqayyīr/ 'being changed'	/tīlīd/ 'she gives birth to a baby'
/cvvc/	/ yaarna/ 'our neighbour'	/ xuwaalhum/ 'their uncles'	/ zuwaay/ 'marriage'

The syllable pattern /ccv/ occurs only in word-initial position as in /wSalaw/ 'they arrived' and / yHasīd/ ' he envies'. The syllable pattern / ccv/ occurs word-initially or it stands alone in monosyllabic words. This is verified in words such as /Hzaaya/ 'riddle', and /hīī/ ' here', in the order mentioned. Syllables of / cvcc/ /cvvcc/, /cvvcc/, /cvvcc/ and /cvvcc/ stand alone in monosyllabic words only. In consequence, we find

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words in KA such as /mɪlH/'salt', /Haarr/'hot',/ydɪɪd/ 'new' and /Sbayy/'young boy', respectively.

The analysis of syllabic structure of KA exhibits that the number of syllables in Kuwaiti words is identical to the number of the vowels it contains, whether these vowels are short or long. Hence, there is one syllable in / Sall/ ' pray' , and /saas/ ' foundation', two in /yuba/ ' my father' and / fɪraan/ ' rats' , three in / maHraga/ ' trash dump', and / tɪnaanɪr/ ' skirts, ovens', and four in / diyayatna/ ' our hen', and so on.

The first syllable of the word in KA begins with one or two consonants such as / yanna/ ' paradise', and / yhara/ ' Al-Jahra' – a name of a city'. Syllables rather than the first begin with a single consonant. In consequence, where there are two consonants in the middle of a word, whether they are geminate or non-geminate, syllabic segmentation is made between these two consonants. This can be exemplified in words such as / gɪ-wɪ/ ' strong', /ʔɪstaH/ ' be ashamed of', /rag-gam/ 'he fixed numbers', / wɪd-dɪk/ ' would you prefer?', / qas-sal/ ' he washed thoroughly' and so on.

## 6- A Comparison of IA and KA Syllabic Structure

### 6.1 Method of Comparison

The survey of the syllable structures both in IA and KA done in this paper indicates that both language varieties under investigation permit eleven structure patterns. Besides, the syllable in both dialects begins with one or two consonants and terminates also with one or two consonants, whether they are identical or not. To point out such similarity, all the possible syllable patterns in both language varieties and the distribution of these patterns will be tabulated in a chart followed by an analysis of the results.

**Table (5): A Comparison of Syllable Structure Patterns in IA and KA with their Distribution\***

Pattern No.	Syllable Pattern in IA	Syllable Pattern in KA	In Word-Initial Position		In Word-Medial Position		In Word-Final Position		In Monosyllabic Words	
			IA	KA	IA	KA	IA	KA	IA	KA
1	/cv/	/cv/	+	+	+	+	+	+	-	-
2	/ccv/	/ccv/	+	+	-	-	-	-	-	-
3	/cvv/	/cvv/	+	+	+	+	+	+	-	-
4	/ccvv/	/ccvv/	+	+	-	-	-	-	+	+
5	/cvc/	/cvc/	+	+	+	+	+	+	-	-
6	/ccvc/	/ccvc/	+	+	-	-	-	-	-	-
7	/cvcc/	/cvcc/	-	-	-	-	+	+	+	+
8	/cvvc/	/cvvc/	+	+	+	+	+	+	+	+
9	/cvvcc/	/cvvcc/	-	-	-	-	+	+	+	+
10	/ccvvc/	/ccvvc/	-	-	-	-	-	-	+	+
11	/ccvcc/	/ccvcc/	-	-	-	-	-	-	+	+

\*The plus sign indicates that the pattern is licensed in this position, whereas the minus sign shows that the pattern is not licensed.

## 6.2 Analysis of Results and Discussion

Table (5) shows that both IA and KA permit eleven syllable patterns. These patterns demonstrate the same distributional principles in different word-positions and in monosyllabics. Syllables of the elements /cv/, /cvv/, and /cvc/ occur freely in both language varieties. The pattern /cvvc/ occurs in different

word-positions and in monosyllabics in both dialects. Structures of /ccv/, and /ccvc/ elements occur only in word-initial position in both varieties. The syllable structure /ccv/ occurs word-initially and in monosyllabics in both varieties. Syllable patterns of the elements /cvcc/ and /cvvcc/ occur word-finally and in monosyllabics. The last two patterns, namely, /ccvvc/ and /ccvcc/ are only licensed in monosyllabic words in both dialects.

### 6.3 Conclusions

The major conclusions that can be drawn from this study are the following:

- 1- The word in IA and KA begins and ends either with one or two consonants.  
Consequently, syllable structure in the two dialects is represented by the formula  $C_{1-2} V C_{1-2}$ .
- 2- Both varieties contain syllabic patterning / - c+ c- / across syllable boundary within one and the same word.
- 3- All the possible types of syllabic structures in both varieties are eleven in number.
- 4- Both varieties show the same distributional characteristics of their syllabic patterning in different word-positions and in monosyllabics.
- 5- The rating of words having the syllable pattern /cvcc/ in KA is higher than the rating of these words in IA. This is due to the predominance of the Bedouin nature of KA.

## Notes

- 1- For more details on the variety spoken by Bedouins in the region unconsidered in this study, see Johnstone ( 1961)
- 2- For more details on different aspects of syllabic structure in Arabic, see Al-Toma, 1966; Flish, 1966; Al-Antaki, 1969; Al-Antaki, 1969; Hujazi, 1978; and Shahin, 1980.
- 3- The dialects include those spoken in Syria, Lebanon and Palestine.
- 4- In words of more than one syllable, the required syllable is underlined.
- 5- It may also be heard as / naxla/

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