

SYLLABIC STRUCTURE AND STRESS IN CAIRENE ARABIC: A DIDACTIC APPROACH

La estructura silábica y la intensidad en el árabe de El Cairo: una aproximación didáctica

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Abstract: The linguistic variety spoken in Cairo follows phonetic rules that depend primarily on the syllabic structure of the phonological word and the new syllabic structure of the phonological phrase. This paper develops these rules systematically describing the Cairene Arabic phonotactic that deals with syllabic structure, shift of stress in discourse and their effect on vowels or rhymes. It shows the way the syllabic structure determines the placement of stress in the phonological word whatever its grammatical category is and the effect of this stress within the phonological phrase in which the word is involved while being uttered.

Resumen: La variedad lingüística coloquial en el Cairo sigue normas fonéticas que dependen primeramente de la estructura silábica de la palabra fonética y de la nueva estructura silábica de la oración fonológica. Esta investigación se centra en estas normas; describe la estructura fonética del árabe coloquial de El Cairo relacionada con la estructura silábica, el cambio de la intensidad durante el discurso y sus efectos sobre las vocales. La investigación muestra también cómo la estructura silábica determina el emplazamiento del acento en la frase fonológica cualquiera que sea su categoría gramatical así como el efecto de esta intensidad acentual dentro de la oración fonológica que se va formando a medida que se produce el discurso oral.

Key words: Phonology. Cairene Arabic. Syllable. Stress. Suffixation. Rhymes.

Palabras clave: Fonología. Dialecto de El Cairo. Sílabas. Sufijación. Vocal.

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1. INTRODUCCIÓN

When a native Arab speaks, he/she produces long vowels and tonic accents in his/her speech which might appear obscure to non-natives, used to read and listen to Classical Arabic linguistic variety with its special phonology¹. In his/her act of speech, the native Arab follows instinctively many phonetic rules that depend

1. By «native arab» it is meant the person whose mother tongue is the Arabic language; a native in Arabic lives anywhere in the Arab world, uses his colloquial instinctively and studies Classical Arabic as the prestigious variety. He is generally not aware of the grammatical relation between his speech and the classical arabic he learns at school, Janet Watson. *The phonology and morphology of Arabic*. Oxford: Oxford University Press, 2002, pp. 8-9. For an accurate summary of Classical Arabic phonology see Wolfdietch Fischer. "Classical Arabic". *Encyclopaedia of Arabic Language and Linguistics (EALL)*. K. Versteegh *et alii* (Eds.). Leiden: Brill, 2006, pp. 397-405.

primarily on the syllabic structure of the phonological word and on the new string of syllables in the phonological phrase formed by adding suffixes or clitic group². All colloquial linguistic varieties are spoken within grammatical constraints of the language normalised in Classical Arabic variety³.

This paper examines the Cairene colloquial linguistic variety⁴ to show how the syllabic structure determines the place of stress in the phonological word whatever its grammatical category is, and the reaction of this stress within the phonological phrase in which the word is involved while being spoken⁵. Because the Cairene variety is stable in its phonetic performance, these rules are regularly followed by the speaker in his/her speech and are easily spotted as will be shown in this paper.

2. SYLLABLES AND THE SYLLABIC TYPOLOGY OF CAIRENE ARABIC

The syllable has been traditionally considered the basic unit of phonological analysis in Arabic language as an “onset syllable” whether of the Classical Arabic

2. The terminology used in this paper is the one established by Nespov and Vogel given that it is the most adequate phonological theory expressing the taxonomy of the colloquial variety discussed in this paper, Marina Nespov and Irene Vogel. *Prosodic Phonology*. Dordrecht-Holland/Riverton-USA: Foris Publications, 1986.

3. Each of the uncountable colloquial varieties of the Arabic language has its own phonologic particularities within the general templates provided by the grammatical structure of the language, Kristen Brustad. *The syntax of spoken Arabic. A comparative study of Moroccan, Egyptian, Syrian and Kuwaiti dialects*. Washington: Georgetown University Press, 2000; Janet Watson. “Word stress in Arabic”. *The Blackwell Companion to Phonology*. Oxford-Massachusetts: Blackwell Publishers, 2011, vol. V, pp. 2991-2992; 2010, pp. 139-187 and 2005, pp. 126-127. Grammatical constraints and its effect in phonology is an important issue in international theories, Juliette Blevins. “The syllable in Phonological Theory”. *The Handbook of phonological theory*. John Goldsmith (Ed.). Oxford-Massachusetts: Blackwell Publishers, 1996, p. 224; John McCarthy and Alan Prince. “Prosodic Morphology”. *The Handbook of phonological theory*. John Goldsmith (Ed.), Oxford-Massachusetts: Blackwell Publishers, 1994, pp. 318-366; Nespov and Vogel. *Prosodic Phonology*. Dordrecht.Holland/Riverton-USA, 1986, pp. 109-144; K. P. Mohanan. “The organization of grammar”. *The Handbook of phonological theory*. John Goldsmith (Ed.). Oxford-Massachusetts: Blackwell Publishers, 1996, pp. 1996.

4. As a general observation and without any statistic data, it seems that Cairene variety is the most renowned dialect among phonologists not specialized in Arabic Linguistics. This is probably due to the plethora of research already done by Arabist on the topic, Manfred Woidich. “Cairo Arabic”. *Encyclopaedia of Arabic Language and Linguistics (EALL)*. K. Versteegh et alii (Eds.). Leiden: Brill, 2006, pp. 323-333.

5. The stress or accent is the highest intensity of a prominent syllable in a phonologic word, René Kager. “The metrical theory of word stress”. *The Handbook of phonological theory*. John Goldsmith (Ed.), Oxford-Massachusetts: Blackwell Publishers, 1996, pp. 367-402; Gerard Janssens. *Stress in Arabic and word structure in the Modern Arabic dialects*. Lovaina: Orientalia Gandensia V, 1972; Morris Halle and Idsardi William. “General properties of Stress and metrical structure”. *The Handbook of phonological theory*. John Goldsmith (Ed.). Oxford-Massachusetts: Blackwell Publishers, 1996, pp. 403-443. As described by T. F. Mitchell. “The accented syllable typically carries the strongest stress (or breath force) and the highest pitch, T. F. Mitchell. *Pronouncing Arabic 1*. Oxford: Clarendon Press, 1990, pp. 102-103.

variety⁶ or the colloquial varieties⁷. Consequently, the syllable is the basic unit in this paper⁸ and the syllable's rhyme is described by its phonological length or quantity, long or short⁹.

There are five types of syllables in Cairene Arabic¹⁰:

6. W. Wright. *A grammar of the Arabic language*. Cambridge: Cambridge University Press, 1932; Régis Blachère and M. Gaudefroy Demombynes. *Grammaire de l'arabe classique*. Paris: Maisonneuve et Larose, 1975.

7. Nada Tomiche. *Le parler arabe du Caire*. Paris: Mouton and Co, 1964; Janssens. *Stress in Arabic*. Lovaina, 1972; Y. N. Zawadowski. *The Magrib Arabic dialects*. Moscow: Nauka Publishing House, 1978; Jeffrey Heath. "Ablaut and ambiguity". *Phonology of a Moroccan Arabic dialect*. Albany: State University of New York Press, 1987; Jean-Pierre Angoujard. "Accentuation et effacements vocaliques". *Développements récents en linguistique arabe et sémitique*. G. Bohas (Ed.). Damascus: Institut Français de Damas, 1993, pp. 57-75. Syllable is still the basic unit of analysis on international theories level that examine the spoken Arabic varieties, Elisabeth Selkirk. "Epenthesis and degenerate syllables in Cairene Arabic". *Theoretical issues in the grammar of Semitic languages*, 3. H. Borer and Y. Aoun (Eds.), Massachusetts: Cambridge University Press, 1981, pp. 209-232; Juliette Blevins. "The syllable in Phonological Theory". *The Handbook of phonological theory*. John Goldsmith (Ed.). Oxford-Massachusetts: Blackwell Publishers, 1996, pp. 206-244; Ellen Broselow. "Skeletal positions and moras". *The Handbook of Phonological Theory*. John Goldsmith (Ed.). Oxford-Massachusetts: Blackwell Publishers, 1996, pp. 175-205; E. Broselow, M. Huffman, Su-I-Chen and R. Hsieh. "The timing structure of CVVC Syllables". *Perspectives on Arabic linguistics VII*. Mushira Eid (Ed.). Amsterdam-Philadelphia: John Benjamins Publishing Company, 1995, pp. 119-138; Bruce Derwing, Dilworth Parkinson and Richard Beinert. "Experimental investigations of Arabic syllable structure". *Perspectives on Arabic linguistics VII*. Mushira Eid (Ed.). Amsterdam-Philadelphia: John Benjamins Publishing Company, 1995, pp. 107-118; Paul Kiparsky, "Syllables and moras in Arabic", *The Syllable in Optimality Theory*, Caroline Féry and Ruben van de Vijver (ed.), Cambridge, Cambridge University Press, 2003, 147-182; John McCarthy, "The Length of Stem-final Vowels in Colloquial Arabic", *Perspectives on Arabic Linguistics XVII-XVIII*, Mohammad T. Alhawary and Elabbas Benmamoun (ed.), Amsterdam-Philadelphia, John Benjamins Publishing Company, 2005, 1-26; Autor, 2010 and 2006, 439-442.

8. Minuscule "k" and "u" are used here to represent the onset and the rhyme and not the usual capital "C" for Consonant and "V" for Vowel to enable writing the tonic accent on the vowel "u", using the Spanish enabled computer.

9. G.N., Clements and Elizabeth Hume. "Internal organization of speech sounds". *The Handbook of phonological theory*. John Goldsmith (Ed.), Oxford-Massachusetts: Blackwell Publishers, 1996, pp. 256-257. Although the theory of quantity has received a big deal of critics nevertheless it is followed in this paper because of its adequacy with the topic dealt with, David Perlmutter. "Phonological quantity and multiple association". *The Handbook of phonological theory*. John Goldsmith (Ed.), Oxford-Massachusetts: Blackwell Publishers, 1996, pp. 307-317.

10. This section references mainly Mokhtar Ahmed. *Lehrbuch des Ägyptisch-Arabischen*. Wiesbaden: Otto Harrassowitz, 1992; Angoujard. "Accentuation"; T. F. Mitchell. *Introduction to Egyptian Colloquial Arabic*. Oxford: Oxford University Press, 1956; T. F. Mitchell. *Colloquial Arabic. The living language of Egypt*. London: The English University Press, 1962; Jacques Jomier. *Manuel d'arabe égyptien (parler du Caire)*. Paris: Librairie C. Klincksieck, 1964; Tomiche. *Le parler Arabe*; Manfred Woidich. "Das Ägyptische-Arabisches". *Handbuch der arabischen Dialekte*. W. Fischer and O. Jastrow (Eds.). Wiesbaden: Otto Harrassowitz, 1980, pp. 207-248; Manfred Woidich. "Short /a/ in Cairo Arabic Morphophonology". *Semitic Studies. In honor of Wolf Leslaw*, 1991, vol. II, pp. 1633-1651; Manfred Woidich and Rabha Heinen-Nasr. *Kullu tamam. An introduction to Egyptian Colloquial Arabic*. Cairo: American University of Cairo Press, 2004; Manfred Woidich. *Das kairenisch-arabische. Eine Grammatik*. Wiesbaden, Harrassowitz Verlag, 2006; Manfred Woidich, "Cairo Arabic", pp. 323-333; Watson. *The phonology and "Word stress"*, pp. 207-225.

1. Open syllable with short vowel /ku/, like the first syllable in *katab* (kataba)¹¹;
2. Open syllable with long vowel /kû/, like the first syllable in *kâteb* (kâtibun);
3. Closed syllable with short vowel /kuk/, like the first and the second syllable in *maktâb* (maktabun);
4. Closed syllable with long vowel /kûk/, like the second syllable in *ketâb* (kitâbun)
5. Double closed syllable with short vowel /kukk/, like the second syllable in *katabt* (katabtu; katabta).

In these examples three of the five words are stressed with intensive prominence in one of the syllables: the short and open syllable /ku/ of *kâtab*, the short and closed syllable /kuk-/ in the first syllable of *mâktab* and the vowel of the double closed syllable /-kukk/ in *katâbt*.

These are precisely the words that contain no long vowels. In the other two cases, the long vowels are situated on the first long and open syllable /kû/ in *kâteb* and on the final long and closed syllable /kûk/ of *ketâb*¹² with no stress on the phonological word. Any phonological word, regardless its grammatical category, whether it is a verb, noun, adjective or adverb, is stressed according to this basic syllabic structure as will be shown.

3. BASIC STRESS PATTERNS AT THE PHONOLOGICAL WORD LEVEL

The syllable on which a Cairene speaker naturally places his stress is variable although there are three fixed positions. Those are the following ones:

- a. At the end of phonological word when ending with a double closed syllable /-kukk/ as in *šâms* (šamsun), *ḍarâbt* (ḍarabtu; ḍarabta), *'ensâgâlt* ('inšâgaltu; inšâgalta),

11. The classical equivalent to the dialectal word is provided between brackets. When talking about verbs, their normalized equivalent is provided too. Besides person, gender and number are specified in case of ambiguity; nouns are given in nominative, generally with *tanwin* of no definiteness. The transcription of each variety is different. In Classical variety the traditional central-European transliteration system is used (Federico Corriente, "Acerca de la transcripción o transliteración del código grafémico árabe al latino, particularmente en su variante castellana", *Miscelánea de Estudios Árabes y Hebraicos. Sección Árabe-Islam*, 51 (2002), pp. 361-368.

In dialectal variety the transcription used is the one established by Fischer and Jastrow and followed in Abboud-Hagggar, 2010. Dialectal transcription is presented in cursive type and a circumflex accent as long vowel. Stress or accent is represented on the stressed vowel with a tonic accent, (W. Fischer and O. Jastrow. *Handbuch der arabischen Dialekte*. Wiesbaden: Harrassowitz Verlag, 1980.

12. See Angoujard. "Accentuation", pp. 63-64; Woidich. "Cairo Arabic", p. 325.

- b. On the first syllable when the phonological word is composed by 2 or 3 /-ku-/ short open syllables as in *háwa* (“hawā’un”), *bá’ara* (baqaratun), or *kánaba* (from French *canapé*, couch)¹³.
- c. The absence of stress is another fixed position. It occurs when there is a long vowel in a final long and closed /-kûk/ syllable. The long vowel prevents stress whether it occurs in a mono-syllabic word like *şéf* (şayfun), a bi-syllabic word like *mandîl* (mandîlun), or a tri-syllabic word like *baragît* (barāğîṭun).

Besides these three fixed cases, stress is placed in variable positions depending on the syllabic structure, as shown in the following cases¹⁴.

1. In a bi-syllabic phonological word with a syllabic structure composed by an open short and a closed short syllable /kukuk/, accent is placed on the first syllable /kúkuk/:
E.g. *lában* (labanun), *dáxal* (daḥala).
2. In a bi-syllabic word with a structure composed of two closed short syllables /kukkuk/ or a closed short and an open short syllable /kukku/, stress is placed on the first syllable /kúkkuk/ and /kúkku/:
E.g. *kássar* (kassara); *máktab* (maktabun); *góm’a* (ğumu’atun), *mánsi* (mansiyun).
3. In a tri-syllabic phonological word with a structure composed of open short, open short and closed short syllables /kukukuk/, stress is placed on the first syllable /kúkukuk/:
E.g. *házamet* (hazamat), *xáraget* (ḥarağat).
4. In a tri-syllabic word with a structure composed of a closed short, open short and open short syllable /kukkuku/, stress is placed on the second syllable /kukkúku/:
E.g. *maktába* (maktabatun), *madrása* (madrasiatun).
5. In a tri-syllabic word with a structure composed of open short, closed short, and open short syllables /kukukku/, or closed short, closed short, and open short syllables /kukkukku/, stress is placed on the second syllable /kúkukku/ and /kukkúku/.

13. Tomiche. *Le parler arabe*, pp. 78-93 and Woidich. “Cairo Arabic”, p. 326. Nevertheless, there are a few cases of plurals that do not follow this general rule like *bumúka* (plural of *bank*, from English ‘bank’), *sibíta* (plural of *sabat* from Persian ‘basket’) and *subúta* (plural of *sabt*, ‘Saturday’), Woidich. *ibidem*, p. 325.

14. The examples given in this section are mainly phonological words, without clitic word. Nevertheless, in tetra-syllabic words, in which the placement of stress still depends on the syllabic structure, the examples given are phonological words with clitic word. Longer syllable strings are not considered here because the placement of stress is decided in the last three syllables, Angoujard. “Accentuation”, p. 63; Mitchell. *Pronouncing*, p. 115.

E.g. *Ḍarábna* (ḍarabnā); *šagálna* (šagalanā); *mašgálna* (mašğalunâ), *maktábna* (maktabunā).

6. In a tetra-syllabic phonological word with a structure composed of a closed short, open short, open short and closed short syllables /kukkukukuk/, the second syllable /kukkúkukuk/ is stressed:

E.g. *'enházamet* ('inhazamat), *'eltázamet* ('iltazamat).

7. In a tetra-syllabic word with a structure composed of open short, open short, open short and closed short syllables /kukukukuk/, the third syllable /kukúkukuk/ is stressed:

E.g. *šatamétek* (šatamatuki), *ḍarabétak* (ḍarabatuka).

8. In a tetra-syllabic word with a structure composed by closed short, open short, closed short, and open short syllables /kukkukukkuk/ or open short, open short, closed short and open short /kukukukku/, the third syllable is stressed: /kukkúkúkkuk/ and /kukúkúkku/.

E.g. *markebéthom* (markabatuhum); *moloxyya* (muluḥiyyatun); *'amarétna* (qamaratunā).

Any phonological word, regardless its grammatical category, whether it is a verb, noun, adjective or adverb, is stressed according to these basic syllabic structures.

4. FEATURES OF CAIRENE STRESS

Based on these observations on syllabic structures, four basic features of stress in Cairene must be highlighted.

1. *Stress is automatic and predictable*

a. A short closed syllable /kuk/, standing in penultimate position in whatever syllabic structure, whether formed by 2, 3, 4, 5, 6 or even 7 syllables –without a double closed syllable or closed long syllable at the end of structure– always attracts the accent. The following are examples of closed short syllables found in penultimate position in frequently used syllabic structures:

a. Bi-syllabic: *'áḥmad* (Aḥmadu), *báhga* (bahğatun);

b. Tri-syllabic: *'amálna* ('amalnā), *ra'ádna* (raqadnā);

c. Tetra-syllabic: *'amaléyya* ('amaliyyatun); *maḥsubéyya* (maḥsūbiyyatun); *šagalétna* (šagalatnā); *ḍarabéthom* (ḍarabathum).

The prominence of the intensity of the short and closed syllable /-kuk-/ falling in the penultimate position of the phonological word or phonological phrase, even in a long syllabic string is one of the main features of Cairene rhythm¹⁵.

¹⁵ Angoujard, "Accentuation", 63.

- b. Only one long vowel is tolerated, either at the end of the phonological word or at the end of the phonological phrase. This is why in words that in *fušḥa* bear a double long vowels like “šābūn”, “qānūn”, or in words whose plural is formed by two long vowels like “manādīl” or “fawānīs”, only one long vowel, the last one on the last syllable, is pronounced by natives: *šabūn*, *ʿanūn*, *manadīl*, and *fawanīs*;
- c. No long vowel at the end of the phonological word or the phonological phrase in an open syllable is tolerated. This shortening occurs in the final long [ū] of the third person plural in verbs which become a short [o], like in *shérbo* (šaribū) and *féhmo* (fahimū), and in the clitics of verbal suffixes like -hā, -nā, -nī or -ī as in *šāfha* (raʿāhā), *šāfna* (raʿānā), *šāfnī* (raʿānī) or *ʿāndī* (ʿindī).

2. Stress shifts

Stress in Cairene Arabic is also considered mobile because it shifts its position depending on the readjusted new syllabic structure formed when uttered. Mobility of stress will be examined in four situations: with a suffixed clitic group, whether entire syllables or ill syllable as determined by grammatical constraints; when the junction in speech with other phonological words takes place, generally not obeying to any grammatical constraint; when a consonant cluster occurs because of grammatical causes or phonetic ones; and finally when the constructive state of *iḍāfa* changes the syllabic structure.

1. Stress shifts with clitic suffixation, usually pronouns. These can be a complete syllable or part of it:

- *ʿatal* (qatala), *ʿatālha* (qatalahā), *ʿatalétkom* (qatalatkum), *ʿatalnāha* (qatalnāhā);
- *fātaḥ* (fataḥa), *fāttaḥ* (fattaḥa), *fattāḥha* (fattaḥahā), *fattaḥnālahom* (fattaḥnālahum), *fattaḥnahālahom* (fattaḥnā iyyāhālahum), *fattaḥnahomlóhom* (fattaḥnā iyyāhumlahum).
- *bālah* (balaḥun), *bālaḥa* (balaḥatun), *balāḥto* (balaḥathu), *balahétna* (balaḥatunā).

Accenting motivates a re-syllabification of the syllabic string on the phonological phrase level and affects it following the dialect’s phonetic rules.

2. Stress shifts in a consonant cluster: A definitive element in suffixation, directly related to the accent and rhythm of speech in Cairene Arabic, is the intolerance of a three-consonant cluster anywhere in the phonological word. This cluster motivates the insertion of a vowel of disjunction, which generally is a schwa

that is inserted between the second and the third consonant¹⁶. The epenthetic vowel can also be [a] or [o] for vocalic harmony purposes, This additional vowel can be stressed or maintained unstressed in the new phonological phrase, depending on the syllabic structure and on the rules of accent that govern speech. Some examples are given in the following paragraph:

- a. In a mono-syllabic word formed by one double closed syllable, any suffixation will open the double consonant cluster, affect the original stressed vowel of the syllable, and make it change.
 - *báxt* → *báxt-na* → *baxt-é-na*¹⁷ (baḥtun; baḥtunā);
 - *báxt* → *báxt-hom* → *baxt-ó-hom*¹⁸ (baḥtun; baḥtuhum).
- b. The junction of two words easily results in a three-consonant cluster which then requires separation with a disjunction vowel and a “re-syllabification” of the phonological phrase.
 - *mádd réglo(h)* → *madd-e-réglo(h)* → *madderéglo(h)*¹⁹ (madda qadamahu);
 - *šáms belâdi* → *šams-e-b(e)lâdi* → *šamseblâdi*²⁰ (šamsu bilâdī);
 - *‘el-kâlb da* → *‘ekkálb-e-da* → *‘ekkalbéda*²¹ (hāḏā al-kalbu).

3. Stress shifts in genitive cases

Another fundamental aspect of phonology, related directly to Cairene Arabic’s accent and rhythm of speech is the formation of the “Construct State” (*iḏāfa form*) in feminine nouns. As normalized in Arabic *fuṣṣa*, these nouns ended with a *tā’ marbūṭa*, that were elided phonetically in dialectal speech and replaced by an open final short rhyme [-a], as a feminine marker. The suffixation of the second phonological word of the *iḏāfa* to the first phonological one implies the insertion of a /schwa + -t-/ syllable. The insertion of this ill-formed syllable gives way to a “re-syllabification” of the newly formed phonological phrase following stress patterns already shown above.

The following are examples of the stress in these cases:

- *‘arūsa* → *‘arusétha* (‘arūsatur; ‘arūsaturhā)

16. As observed by Blevins, “the epenthesis is a strategy for saving otherwise un-syllabifiable strings”, Blevins. “The syllable”, p. 224. As stated before a three consonant cluster in Cairene Arabic cannot form a viable syllable, Tomiche. *Le parler arabe*, pp. 42-43).

17. The syllabic structure becomes short closed, short open, and short open syllables /kukkuku/, with stress on the second syllable /kukkúku/.

18. The syllabic structure becomes short closed, short open, and short closed syllables /kukkukuk/, with stress on the second syllable /kukkúkuk/.

19. The word is formed by short closed, short open, short closed and short closed syllables, /kukkukukku/ with the short and closed syllable in penultimate position stressed: /kukkukúku/.

20. The new phonological word is a succession of /kukkukkúku/, with one long vowel in an open syllable in penultimate position.

21. The new phonological word is a succession of /kukkukkuku/ with stress on the open syllable with short rhyme in penultimate position /kukkukkúku/.

- *wárda* → *wardéti* (wardatun; wardatī).
- *ba'ara* → *ba'ar+e+to(h)* → *ba'árto(h)* (baqara; baqaratuhu);

It should be observed that the [-et] (/schwa + -t-/) discussed here, which is the phonetic result of the *iḏāfa* should be differentiated from the [-et] of the verbal suffix of the third person feminine singular; the latter is never elided because of grammatical constraint:

- *šátamet* → *šataméto(h)* (šatamat; šatamathu).
- *'ámalet* → *'amaléto(h)* ('amat; 'amalathu).

5. EFFECT OF STRESS ON VOWELS AT A PHONOLOGICAL PHRASE LEVEL

Stress acts on long and short vowels in a very particular way giving the Cairene Arabic dialect its internal harmony and rhythm as observed in the following cases.

1. Effects of stress on long vowels

Stress affects long vowels by shortening their quantity and increasing their intensity.

1. Stress shortens the long rhyme of a closed syllable /-kûk/, positioned necessarily at the end of the enclitic phonological word or phonological phrase, and the long rhyme of an open syllable /-kû-/ positioned necessarily in the middle of the word²².
 - a. Shortening of the long rhyme of a closed syllable /-kûk/ at the end of word takes place when the syllable becomes a short double closed /-kukk/ syllable because of suffixation, as with the following verbs:
 - *texâf* → *mat(e)xâfš* → *matxâfš* (taḥāfu; lā taḥāfu)²³;
 - *tenshâl* → *matenshâls* (tuḥmal; lā tuḥmal);
 - b. It also occurs if the long closed syllable /-kûk/ becomes a closed syllable /-kuk-/ in the penultimate position because of suffixation:
 - *manadîl* → *manadîlhom* (manādîlun; manādîluhum);
 - *muwazzafîn* → *muwazzafinna* (muwazzafûn; muwazzafûnā)
 - c. Shortening of the long vowel also occurs in the long closed syllable /-kûk/ at the end of the word when it is followed by another syllable with a long vowel.
 - *bêt* → *betên* (baytun; baytāni);

22. On vowel shortening in other Arabic dialects with special reference to Cairene Arabic, see Munther Younes. "On vowel shortening in Palestinian Arabic". *Perspectives on Arabic linguistics VII*. Mu-shira Eid (Ed.). Amsterdam-Philadelphia: John Benjamins Publishing Company, 1995, pp. 157-171.

23. The elision of the vowel observed in this example and the following ones will be addressed in the next section.

— *raṣīf* → *raṣīfēn* (raṣīfun; raṣīfāni).

2. Shortening occurs in a long open syllable /-kû-/ when it falls in the middle of a word as shown in the following cases of suffixation:

a. If the clitic is a syllable with long vowel, the first long vowel is shortened:

— *sâ'a* → *sâ'-a-t-ēn* → *sa'tēn* (sā'atun; sā'atāni);

— *sâ'a* → *sa'ât* (sā'atun; sā'ātun);

— *fâhem* → *fah-e-mîn* → *fahmîn* (fāhimun; fāhimūna; fāhimāt).

b. If in the re-syllabified string the clitic forms a syllabic string with a short closed syllable /-kuk-/ in penultimate position the long vowel loses its quantity and is stressed:

— *wâled* → *wâldi*²⁴ (wālidun; wālidī);

— *wâxed* → *wâxda* (āḥidun; āḥidatun);

— *mâher* → *mâhra* (māhirun; māhiratun).

2. Effects of stress on short vowels

Stress affects short vowels by their elision or their lengthening:

1. Rhyme elision: Although short rhymes in Cairene Arabic tend to be maintained in open and closed syllables²⁵, there are, nevertheless, some cases in which they are elided after suffixation because of the syllabic structure of the new phonological phrase in a stray erasure process²⁶:

a. Within the enclitic phonological word or phonological phrase as in the following examples:

— *mâleh* → *mâl(e)|a* → *mâlha* (māliḥun; māliḥatun);

— *râbaṭo* → *râbaṭo+l+o+hom* → *rabaṭû+lôhom* → *rabaṭûl(o)hom* → *rabaṭûlhom* (rabaṭû; rabaṭû la-hum).

b. When two phonological words come together in speech, as in the following examples:

— *'âna fehémt* → *'anaḥ(e)hém* → *'anaḥémt* ('anā fahimtu).

— *yâ Selîm* → *yas(e)lîm* → *yaslîm* (yā Salîm)

2. Lengthening of short rhymes: Re-syllabification affects the short rhyme in phonological word ending with an open syllable (/ku/) by lengthening that rhyme that was a long vowel in Classical Arabic that had been shortened according to rules of speech. The following examples are taken from daily speech:

24. This shortening affects all of the "Ismu l-fā'il" present participles of the verbs in their Form I.

25. Tomiche. *Le parler arabe*, p. 54; Heath. "Ablaut and ambiguity"; Ahmed. *Lehrbuch des Ägyptisch*, pp. 9-10.

26. Blevins. "The Syllable", p. 223.

- a. The /o/ of the 3rd person plural becomes /û/ with the suffixation of whatever grammatical element is added, forming a new syllabic structure as in the following examples:

— *ḍarabo* → *ḍarabû(h)* (ḍarabû; ḍarabûhu);

— *lâ'bo* → *la'bû(h)* (lâ'abû; lâ'abûhu).

- b. The first person pronoun /i/ becomes /î/:

— *šâfni* → *mašâfniš* (ra'ânî; mā ra'ânî);

— *samêhni* → *masamehniš* (sāmaḥanî, mā sāmaḥanî).

This lengthening occurs with the originally long /î/ of the defective roots as in the following examples:

— *muḥâmi* → *muḥamîna* (muḥāmî, muḥāmîna).

— *râmi* → *ramîhom* (rāmî, rāmîhum).

- c. The originally shortened final *hamza* in /a/ word becomes /â/ as in:

— *hâwa* → *hawâna* (hawâ', hawâ'unâ);

— *hâna* → *hanâki* (hanâ'; hanâ'uki).

It is also applied to distinguish the feminine in words which end with /a/ as in:

— *ḥawâga* → *ḥawagâya* (ḥawâġa)

— *mânga* → *mangâya*²⁷ (mangu; mangatun)

6. CONCLUSIONS

The paper aimed at describing the basic rules that regulate stress in Cairene Arabic in order to explain the reasons that make Cairene speech sounds as it sounds to natives and to foreigner listeners. It also aimed at showing the vowel on which a foreigner reader has to put the stress while reading or speaking that dialect. The examples given were accompanied by their classical equivalent to help establishing the relation between the dialectal phonology and Classical variety²⁸.

It also aimed at showing that dialectal phonetics and grammar are closely related. The first cannot be completely understood without taking into consideration the grammatical constraints of the language described in grammar books. Much more has to be studied about this fundamental relation to understand speaking process in Arabic dialectal varieties.

27. Woidich. *Das kairenisch-arabische*, p. 33; El Said Badawi y Martin Hinds. *A Dictionary of Egyptian Arabic. Arabic-English*. Beirut: Librairie du Liban, 1986, [s.v. HWĠ].

28. The description of the phonotactic of Cairene variety compared to Classical Arabic can be extended to any other Arabic dialect. It would allow a solid comparative platform between the uncountable Arabic dialectal varieties. K. Brustad. *The syntax*, pp. 1-3.

The importance of syllabic structure and stress in Arabic colloquial varieties is increasing²⁹. Not only that they have become valid criteria to distinguish between the uncountable dialectal varieties but it is also an accurate isogloss between those varieties. They are the way to assist introducing all dialectal varieties of Arabic in modern universal phonological and phonetic theories³⁰.

29. Actually, the most recent taxonomies of the main Arabic dialects take into consideration the syllabic structure and stress placement because of the awareness of today's linguists that these two items determine a main feature of the dialect. They constitute an adequate isogloss in tracing linguistics maps, see in the *Encyclopedia of Arabic Language and Linguistics*. Brill, Leiden: Brill, 2006, vol. I: Samia Na'im. "Beirut Arabic", pp. 274-286, Farida Abu-Haidar. "Baghdad Arabic", pp. 222-231, Manfred Woidich. "Cairene Arabic", pp. 323-333 and Jérôme Lantin. "Damascus Arabic", pp. 546-555.

30. Kiparsky. "Syllables and moras", p. 151; Blevins. "The syllable", p. 224; John McCarthy and Alan Prince. "Prosodic Morphology". *The Handbook of phonological theory*. John Goldsmith (Ed.). Oxford-Massachusetts: Blackwell Publishers, 1994, pp. 318-366.