

**Saaïd Ali Omar**

**Emphasis in the phonology Arabic Spoken in Libya**

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**التفخيم و الاصوات المفخمة في الدارجة الليبية**

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### **Abstract**

Various studies have been brought to the literature concerning 'emphasis' and its spread to the neighboring sounds in Arabic. Most studies have focused on the 'emphatic' consonants and their behavior in words but till the present time there is no agreement between researchers on the number of emphatics in Arabic and its varieties. This paper attempts to provide clear account that the emphatic low back vowel [a] is a phoneme, and it is not as claimed by some researchers that it is an allophone of the phoneme [a]. The analysis will be limited to the phonological phenomenon of the 'emphasis' the reasons stands behind our focus on 'emphasis' in this paper comes from my belief that the emphatic sounds play a crucial role of the acquired foreign words. Moreover, our conclusion on this respect will have direct implications for both the size and the structure of the whole inventory which what linguists need in grammar. The paper gives a background of the phenomena as an introduction followed by a review of the literature, the methodology of the study, the discussion and finally the conclusion.

### **التفخيم و الاصوات المفخمة في الدارجة الليبية**

ثمة دراسات موسعة في ادبيات الصوتيات حول التفخيم و انتشاره في الحروف المجاورة. حيث انه في الوقت الذي ذهبت معظم الدراسات الى التركيز على التفخيم في الصوامت و سلوكها في الكلمات الا انه لم يصل الباحثون الى وقتنا هذا الى اتفاق حول عدد الاصوات المفخمة في اللغة العربية و دارجاتها المختلفة. تعد هذه الورقة بمثابة محاولة نسعى من خلالها الى تقديم تفسير واضح مفاده ان صوت ال// المتحرك الخلفى المنخفض هو فونيمية ( allophone مستقلة و ليس كما يدعي بعض الباحثين انها بدل صوتي ) phoneme سيقنصر التحليل في هذه الدراسة على الظاهرة الصوتية المعروفة بالتفخيم و يرجع هذا لاعتقادي بأن الاصوات المفخمة تلعب دورا مهما في الكلمات الاجنبية المكتسبة. علاوة على

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ذلك, فان ماتوصلنا اليه في هذا الصدد سوف تكون له ارتدادات و نتائج من ناحية حجم و بنية المخزون ككل وهو الامر الذي يحتاجه النحات. ستقدم هذه الورقة البحثية خلفية عامة للظاهرة و ستكون على شكل مقدمة متنوعة بالخلفية المعرفية عن الموضوع و من ثم طريقة البحث المعتمدة و تفصيل المسألة و اخيرا الخاتمة.

**Introduction**

In Arabic, 'emphasis' has been considered a major feature that this language has, and it is widely known fact among Arabs that the language is called '**lugataddaad**', means the language of **addaad** the name of one of the emphatic consonants in Arabic. Such emphatic consonants are known to condition adjacent strings of segments to accept the same property; this mechanism is called 'emphasis spread' hence forth **ES**. ES is assimilation process by which a phonological feature 'emphatic' extends over more than one segment through a regular pattern (Owens 1993 :35). In classical Arabic there are only four emphatics / **s, t, d, ð** / sounds which are correspond to the four consonants referred to by Arab linguists as "**mutbaqa**" means covered. However, in other Arabic dialects, the number of emphatics differs and there is disagreement among researchers with respect to what segments can be considered emphatics as we can see in our review of these studies for example; Egyptian Arabic emphatics are classified into three categories: primary, secondary and marginal. The primary ones include ; / **t d s z** / , compared to the other emphatics. Harrell ( 1957,pp71-5) claimed that they are phonemic and the most frequent ones because they occur in all positions and in all vocalic contexts. The secondary emphatics can occur in the environment of those just mentioned ones (the primary /**t d s z**/) and are referred to as conjunct secondary emphatics. The secondary emphatics that occur in contexts other than those of primary emphatics are called independent secondary emphatics. Secondary emphatics which may include consonants like / **k l b r** / are considered rare and have limited distribution. The secondary and marginal emphatics seem to be similar given that the occurrence of both depends on the presence of the primary emphatics else where in the word as in / **s a t r** / 'line'. However, one may argue that languages do not work in such way, i.e. if a researcher is unable to provide some contrastive examples

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between certain set of emphatic and nonemphatic consonants, s/he must not classify them as marginal emphatics; in the rest of this paper I will present data that can make it clear that the appearance of the emphatic consonants do not only depends on the existence of the primary emphatic consonants in the word but to other factors which is the subject of this paper.

Researchers such Ghazali (1977) , Laradi ( 1983) and Card (1983) also adopt the primary and the secondary classification of the emphatics. Card(1983,p 32) pointed out that the primary emphatics are those phonologically and originaliy emphatic and the secondry emphatics as those acquiring emphasis by spreading . Others like Gazali who claimed that the primary emphatics have some features in common that make them different from the so-called secondary emphatics . these features include:

- 1 . They display similar articulatory and acoustic features.
- 2 . They affect adjacent segments in similar way.
- 3 . They can occur in different vocalic contexts without losing their phonemic status.

Despite the fact that one may identify certain set of primary emphatic consonants in Arabic, still these sets vary cross dialects and sometimes within the same dialect. However, in the following paragraphs we will review different sets of sounds that have been considered as the core primary emphatics.

The primary emphatics, that found in certain dialect, are grouped together since certain emphatics are consistenly present in one dialect but not in the other. The emphatics / **s t d** / are identified by Ghazali ( 1977) for Tunisian Arabic ; Bukshaisha (1985) for Qatari Arabic ; Hussain (1985) For Gulf Arabic ; Davis (1985) for the southern rural variety of Palestinian Arabic ; Daher (1998) for Damascus Syrian Arabic ; and Abumdas (1985) Banghazi and Zliten varieties of Libyan Arabic. The second group includes the emphatics \ **t d s z** \ these are reported by Harrel (1957) , Royal (1985) and Youssef (2006) for Egyptian Arabic; Laradi (1983) for Tripoli Libyan Arabic; Card

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(1983) and Herzalla (1990) for Palestinian Arabic and Bakalla (2002) for Saudi Arabic among many others.

Concerning the secondary emphatics found in some Arabic dialect, their number may also vary from dialect to dialect. In addition to the primary ones mentioned above, Lebanese Arabic have / **b m n l r** / as secondary emphatic consonants (Obrecht 1968,p.19).

The same emphatics are presented by Naser (1959, p.203) for Lebanese Arabic apart from /  **b** /.Obrecht (1968,pp.20,21) provides an example of the emphatic sound /  **b**  / in /ba:ba/, a minimal pair containing / **l** /vs / l / in / ?a l:a / ' God' and / ?al:a / ( he said). It is worth to note from the examples that the contrast is limited to the context of the low back vowel / **a** /. However, Kareba (2010) suggested that, these examples indicate that the secondary emphatics may have a phonemic role.

The treatment of certain segments as emphatics is sometimes based on phonetic rather than phonological grounds. Foreexample, Card (1983, pp101-3) states that, phonetic evidence represented by F2 lowering in the context of / **b m l** / compared to their non-emphatic counterparts . However, this is what led Card to treat / **b m l** / as emphatics in Palestinian Arabic . In another point of view, that so- called secondary emphatics may not display the phonic feature associated with the primary emphatics in all dialects . Ghazli (1977,pp.141,1780) rejected the classification of /  **b m l**  / as emphatics in Tunisian Arabic since their occurrence is associated with the low vowel and they were not found to induce the retraction of adjacent segments. However, the idea of splitting the low vowel / a / into emphatic and plain is not new it was discussed by Ferguson (1956,p.451 ), who makes reference to emphatic and plain forms of / **m b l** /, which are phonemically contrastive only in the context of low back vowel / **a** /. Moreover, according to Ghazali (1977), the possibility of having an /æ/ /a/ phonemic split in the western dialects of Arabic. are related to factors like sound change and borrowed words which retain their low back vowel in words like /ba:ba/ 'father' borrowed word from French and /la:mp/ from Italian. Ghazali (1977p.144) provides a minimal pair

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from Tunisian Arabic that shows how borrowings lead to the establishment of the phonemic distinction between /g ea z/ 'kerosene' and / gaz / 'butane'.

More recent study carried out by Abumdas (1985) on the phonology of Zliten Libyan Arabic states that the distinction between the low front vowel and low back vowel is considered to be totally phonemic in contexts of the so-called secondary emphatics as shown by the examples below:

/ bal:ah /	'he wet'	/ <b>bal:a</b> /	'by God'
/ wal:a /	'he returned'	/ <b>wal:a</b> /	'by god'
/ kaf: /	'palm of the hand'	/ <b>kaf:</b> /	'onomatopoei of falling object'
/ ba:bah /	'his door'	/ <b>ba:bah</b> /	'father'
/ ba:lah /	'his attention'	/ <b>ba:lah</b> /	'bale'

Abumdas (1985, pp .22-23 ) suggested two possible choices to solve the problem in the examples above : either to ascribe the phonemic role to the consonant, treating as emphatic, or to the low back vowel. He added that, he prefers the latter choice for economic purposes in the consonantal inventory of the dialect , although he states that Arabic developed minimal pairs of the secondary emphatics / b m n l r / in the context of low vowel .

Concerning the phonemic contrast between the low vowel / a: / and / a: /, Laradi (1983) in her study of Tripoli Libyan Arabic , at the beginning she treats them as separate phonemes, while, noting that the phonemic /a: / is an open centralized vowel with limited occurrence but when she presents the examples illustrated below contain / r /, laradi (1983 p.231) latter argues that [ **a:** ] could be an allophone of /a: / that is backed in the context of / r /.

/ da:r /	'he did'	/ d <b>a:</b> r /	'room'
/ ma : r /	'common'	/ m <b>a:</b> r /	'passing'
/ h a : r /	'puzzled'	/ h <b>a:</b> r /	'hot'

On the other hand, the low back vowel is accounted for in different way in the context of primary emphatic. According to ( Ghazali 1977; Laradi 1983 and Abumdas 1985 ) its an allophone of the low front

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vowel in the emphatic context and acquires its backing from those consonants. Ghazali (1977, p. 133 ) indicates that the occurrence of a primary emphatic consonant next to low vowel is a sufficient condition of the emphaticness of the latter. Laradi ( 1983, p. 18 ) presented the example words [dɑ:r ] ‘harmful’ , [tɑ:b] ‘ cooked’ and [sɑ:m] ‘he fsted’ in which the low back vowel is treated as an allophone of /ɑ:/ in the context of the primary emphatics.

So far we have provided two different views about the emphaticness of the low back vowel /ɑ:(:)/ . In the context of primary emphatics it is considered as an allophone of the low vowel. While in the context of what so-called secondary emphatics, scholars disagree on whether it is a phonemic and spreads emphasis in the consonant or whether it is still an allophone of /ɑ:(:)/ . However, before we sum up our review, let us shed some light on some secondary emphatics and their relation to the low back vowel.

In the treatment of [ ɰ ] as a primary pharyngealised emphatic in Tripoli Libyan Arabic , for instance, is based on radiographic and endoscopic examination of [ ɰ ] which displays the phonological features of pharyngealisation as well as Laradi’s intuitions as a native speaker of TLA, but not on phonological grounds ( Laradi 1983,pp.228,271). Here we can say that this emphatic differs from other emphatic (pharyngealised) sounds in that its occurrence is restricted to the context of the low vowel /ɑ/ or /ɑ:(:)/ in most dialects . (Kreba , 2010 pointed out that [ ɰ ] has more features in common with secondary emphatics like /b/ and /m/ than those of the primary emphatics. Therefore [ ɰ ] must be an allophone of /ɑ/.

**Methodology**

Being a native speaker of the dialect ; more than twenty minimal pairs were presented and we excluded the words that contain any primary emphatic sound.

The Parallel Structures Model of Feature Geometry ( Bruce Moren, 2003 ) is applied to the data used in this paper. However, it has long been established that the feature, not the segment, is the basic unit of

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phonological representation, and the feature combine in variety of ways to form speech sounds. We choose this model because , it is not only eliminates a large number of features from the grammar ( including the major class features) but it provides a unified analysis for consonants, vowels, place, manner, tones, complex and contour segments in spoken languages.

**Hypotythesis**

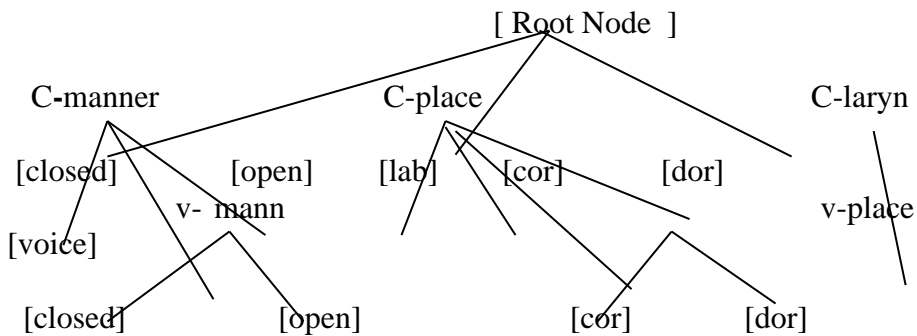
- emphatic sounds display similar articulatory and acoustic features.
- they affect adjacent segments in similar ways.
- they can take place in different vocalic contexts without losing their phonemic status.

My claim in this paper is that (there will be no emphaticness in the environment that one of these sounds [ s ,t d ,a ð ] are not exist in the string.

**Phonological Features in Libyan Arabic:**

The feature geometric structure of Libyan Arabic is given below, assuming the Parallel Structures Model ( Moren 2003 ). Based on the contrastive behavior of consonants and vowels discussed so far, this can make some assumptions to justify the phonological feature specifications for each segment in L A.However,our discussion here will be limited to the low back vowel / a / .

*Libyan Arabic PSM Geometry*



The Parallel Structures Model of features geometry served as the framework for this study. It can account for the generalizations in straightforward way. The advantages of using this model is that it unifies the classes of participating segments through distinctive features e.g. V- place [dor] and V place {cor}..

### Discussion

Before we start our discussion, it is important to present some data that it makes our account of the emphaticness of the low vowel / **a** / clear.

1-a- [ maali ] ‘my money’	b- [ <b>maali</b> ] ‘from Mali’
2-a- [ walla ] ‘returned’	b- [ <b>walla</b> ] ‘by God’
3-a- [ baabah ] ‘his door’	b- [ <b>baabah</b> ] ‘ father ‘
4-a- [ gaal ] ‘he exempted’	b- [ <b>gaal</b> ] ‘ he said ‘
5-a- [ maar ] ‘ common’	b- [ <b>maar</b> ] ‘ passing ‘
6-a- [ haar ] ‘ puzzled ‘	b- [ <b>haar</b> ] ‘ hot ‘
7-a- [ xaali ] ‘ empty’	b- [ <b>xaali</b> ] ‘ my uncle ‘
8-a- [ naari ] ‘ fiery ‘	b - [ <b>naari</b> ] ‘my fire ‘
9-a- [ fatar ] ‘warm’ breakfast’	b- [ <b>fatar</b> ] ‘ had
10-a- [ faar ] ‘escaping’	b- [ <b>faar</b> ] ‘mouse’

As can be noted from our data that primary emphatic sounds were excluded from the illstreted minimal pair examples above ,this is however, done in purpose to show that there will be no ‘ secondary emphatics’ in string not containing one of the emphatics **s**, **t**, **d**, **ð** or the low back vowel / **a** /.

Referring to this balancing distribution , one can make many claims about the underling nature of both vowels and consonants in LA .the fact that needs to be born in minds is that : all consonants are pharyngealized or emphatic in the environment of the low back vowel [ **a** ] this is clearly shown through the minimal pair examples above, However, its evidence that this vowel has an underling

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pharyngealization ‘emphatic’ feature. On the other hand, the nonappearance of the low vowel [ a ] in a syllable suggested the presence or the absence of pharyngealization is contrastive for the consonants [ s, t, d, ð ]. In addition to assimilation within syllable ; LA also exhibits what is called ‘emphasis spread’ . This is, fundamentally, long distance assimilation of the pharyngealization feature throughout the phonological word domain, triggered by a segment that bear this feature contrastively.

Another issue needed to be considered is the effect of emphasis spread ES . ES is a segmental process by which the pharyngealization feature spreads from an underlying segment and expands over a larger domain. The quality of both consonants and vowels in this domain is affected to varying degrees. Target consonants become pharyngealized , while vowels in emphatic environments tend to become lower ,retracted or more centralized than those in non-emphatic environments ( Hetzron 1997). Where this influence is unclear, It can be predicted from surrounding emphatic consonants (Kaye 1997). Therefore, I may describe this effect on vowels as pharyngealization. In practice, all can be pharyngealized as a result of ES. However, emphasis does not spread a cross word boundary but on contrast, it can affect morpheme boundaries.

**Conclusion**

Based on our data and from the traditional Emphasis spread analyses, I come to the conclusion that the low back vowel [ a ] is only the underlying emphatic vowel and all consonants are necessarily emphatic in a string containing this vowel. This is strong evidence that the low back vowel [ a ] is a trigger of ES, what have been missed in all the studies reviewed and their analyses is what called “ secondary emphatics” are underlyingly plain consonants which become targets of ES triggered by [ a ]. Besides the low vowel [a ] I argued that the only underlying emphatic consonants in LA are [ s, t, d, ð ] , Underlying emphatic phonemes in Libyan Arabic form only one class ; [s,t,d, ð, a] which is structurally distinguished by a V-place [dor] feature. Members of this class of segments trigger emphasis spread

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bidirectionally in the phonological word causing targets in this domain to bear an additional V-place [dor] feature.

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