Emphasis as a prosodic feature in Moroccan Arabic

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EMPHASIS AS A PROSODIC FEATURE
IN MOROCCAN ARABIC(*)

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Introduction

The analysis in this paper is an attempt to present an adequately simple interpretation of what seemed, up to now, a complex aspect of Arabic phonology, i.e. emphasis, hereafter E. However, the treatment of E as a prosody does not in any way set this feature apart from the other features of the phonological system of the language; it is believed that prosodic analysis will yield a fairly clear and exhaustive account of this phenomenon.

In phonetic terms E (sometimes also referred to as pharyngealisation) involves lateral expansion of the tongue throughout its length, a simultaneous flattening of its tip, and greater muscular tension, particularly at the back and root of the tongue, which are tensed up and are raised towards the palate. Phonologically, E is a relevant feature in the varieties of Arabic, though the types of consonants it may be associated with and, consequently, their number do vary from one dialect to the other.

Up to now, Moroccan Arabic, hereafter M.A. compared to other languages attracted very little attention from Western scholars, and hardly any from local linguists. This is perhaps one of the reasons why the few treatments it has received are so different one from the other that one may wonder whether they are about the same language. In Some of the few

(*) This paper was written while I was a British Council Scholar at Leeds University (1968-69). I am finally «letting it out» due to insistence from friends. Also, after all these years, I have not much to add about the feature of emphasis. My linguistic thinking has long ago evolved in relation to prosodic analysis, and to Firthian Linguistics in general, but I consider the facts presented in this paper, the findings and the conclusions as still basically valid. I wish to express my gratitude to my colleagues A. Benhallam, A. Boukous and J. Saib for reading the paper and making many editorial suggestions. I am responsible for all the rest.
works dealing with M.A. one finds constant reference to «the old language» and «the classical language», whatever this means. «The classical language» is constantly referred to for the final decision regarding a doubtful or intricate feature, or as a justification of one’s views as opposed to those of another investigator, as in the case of Cantineau and Harris, for example.

The four scholars referred to below gave phonemic analyses of the language with differences ranging between the places and manner of articulation of the sounds, the numbers of the sounds themselves, their distribution, etc.

Z. Harris (1942), for example, lists 20 consonantal phonemes i.e. 19 «linear phonemes», plus one for the feature of «back position» which he abstracts from the «so-called emphatic consonants», as well as «the distinction between /a/ and /æ/». In a strictly phonemic analysis, this distinction is unnecessary. As we shall see, the feature of length is non-distinctive in M.A. vowels, and «back position», i.e. E, does not function in the above vowels in all contexts (see pp. 17). There is hardly one thing on which one would agree in Harris’s study. One wonders just how far Harris himself (and Ferguson, who took up the work with the informants, Mr. and Mrs. Larbi) were aware of the limitations of the latter. One suspects that, somehow, the data were twisted. The study gives a misleading impression of clarity, facile analysis, and appropriateness of the method used.

The article is, in fact full of phonetic misrepresentations, errors at the phonological level not to mention mistakes in the translation of the examples cited. J. Cantineau (1950) criticised, more or less accurately, what he felt was incorrect in Harris’s study, though most of the time on historical grounds.

Concerning the question of «how many phonemes», for example, J. Cantineau concluded that M.A. had 26 consonantal ones, i.e. the ones arrived at for this paper less the 2 semi-vowels /yw/.

Louis Brunot, that same year (1950), lists 36 consonants among which he includes /v/, the affricates /tʃ/ and /dʒ/, the voiced and voiceless dental fricatives /θ/ and /ð/, a voiceless bilabial plosive /p/, an «emphatic lateral»

(1) Z.S. Harris (1942, p. 316)
(2) These were apparently the sole informants on whose speech the research is based. They come from Berrechid (French spelling) which is right in the heart of what might be described as Moroccan «Bedouin» territory, both on historical grounds and owing to present characteristics.
In a comparatively recent study, (Harrell, 1962), one finds 31 consonants, i.e. mine plus what he calls emphatic /b/, /m/, /l/. He dismisses the discussion of E, however, in a few sentences, i.e., «the emphatics /t/, /d/ and /s/ are quite common, with or without other emphatic consonants in the words in which they occur.» (p. 8). Where one would not agree with him at all is concerning the status, or even the existence of an emphatic /b/, /m/ or /l/. In fact, there is no reason why /b/ and /m/ should be given phonemic status, and not /f/ or /h/. Harrell does not even care to support his observation that «the occurrence of /b/, /m/, or /l/ in words where no /t/, /d/, /s/ or /r/ occurs is quite rare» (p. 8), with at least some instances of these rare occurrences. I, personally, could not find any utterances where /b/ and /m/ especially would be the focal point of the feature of E. However I have found the pair:

/Jcellah/, «he raised him, it».

and /cellah/, «for God» (used by beggars in asking for alms), but this is the only example: no examples can be found in which /b/ or /m/ would be the focal point of E. These authors will be discussed in more detail later (see pp. 34). For the time being, I would like, first, to clear the ground by briefly stating a few distributional facts concerning the consonants and vowels listed above.

I — The phonematic units

The data considred for the presentation here has been selected from recorded material of urban M.A. from the southern half of the country, more particularly Marrakesh. This regional variety has the following consonantal phonemes:

/b, f, m, t, d, s, z, r, n, l, ʃ, j, k, g, x, q, ɣ, ʰ, ʷ, w, y/

/t, d, ʃ, z, ɾ/

A dot under a letter indicates an emphatic consonant. The letter:

x represents a voiceless velar fricative
ɣ represents a voiced velar fricative
ʰ represents a voiceless pharyngeal fricative
ʷ represents a voiced pharyngeal

(3) For a definition of the term «focal point», see footnote 9
The other symbols, including the vowels /i, a, u, ə/ unless otherwise stated, have their usual IPA values.

Any of the consonants above can be associated with the feature of gemination (sometimes also referred to in Arabic and Berber linguistics as tension) in which case the symbol is doubled. This feature alone practically doubles the number of the phonemes of the system.

Phonetically, the four vowels listed above have each an impressive number of contextual variants. It was observed, however, that in terms of place and/or manner of articulation of the adjacent consonants, there are three types of allophones, i.e. those in the environment 1/ of front consonants, 2/ of emphatic consonants, 3/ of back or guttural consonants.

A. Simple vowels

In terms of the cardinal values, these allophonic variants can be described and symbolised in the following manner:

1. [i] Close front spread lax\(^{(4)}\) = [fil], «elephant» = [sidisliman], proper name
2. [i] Close central neutral tense\(^{(5)}\) slightly more retracted than cardinal 17 = [tibibt], «hedge sparrow» = [zina], «a dozen»
3. [+] Half close front spread lax = [b + x + r], «well» «I’m well» = [bi ʃ ], «sell!»
4. [æ] Half open front neutral lax = [mæt], «he died» = [lɔæt], «she twisted»
5. [a] Open back neutral tense = [tɔr], «he, it flew» = [ɔmɔt], «she is silent»
6. [a] Open front neutral lax = [lgaha], «he found her (it)» = [mạfiya], «a kind of local gin»
7. [ə] Half close central neutral lax = [bənt], «girl, daughter...» = [ʃəftih] = «you saw him (it)»
8. [ʌ] Half open central neutral lax = [xarja] = «(she) going out» = [xədma], «job»
9. [ɔ] Half close central neutral tense, slightly more advanced than cardinal 15. = [tɔl], «he peeped» = [srɔt] = «he swallowed»:

\(^{(4)}\) and \(^{(5)}\) the terms lax and tense refer to the lack of muscular energy or its existence depending on the conditioning respectively of simple emphatic or guttural environment.
10. [u] close back rounded lax = [mus], «knife» = [ktəbju], «I wrote it»

11. [v] half close back rounded lax = [xvx], peaches = [rvh] = «life — fuse».

12. [o] half open back rounded tense
   = [tob], «bricks made of mud and straw»
   = [sofjr], «yellow (masculine plural)»

B. Diphthongs

The term diphthong is used here in its established sense i.e., a sequence of vocalic glide within one syllable. (For a definition of the syllable see below). The diphthongs in M. have as their first element sounds in the region of e (an intermediate vowel sound between Cardinal 2 and Cardinal 3), [a] (my number 5) and [o] (in the region of my number 12). As a second element the diphthongs of M.A. have either:

   (1) a close or a half close front spread vowel, i.e.

       [ei] — [teiktəb]: «he writes (he is writing)» — [mtteib]: «I am repentent»
       [ai] — [taib]: cooked. (m.s.)
       — [qaimatai]: «he is in the process of making tea».
       [oi] — [boid]: «white (m. pl.)»
       — [troid]: «he, it, is exercised».

   Or:

   (2) they have a rounded vowel in the region of my number 10. i.e. [u]. But this sound forms the second element with [a] only, i.e.

       [au] — [ʃtauni]: «they gave me».
       — [ʃdauha]: «they took her».
       — [rʃbʃautlætin]: «thirty four».

This general assessment of the qualities of the vowel sounds and diphthongal glides can be summed up diagrammatically as follows:

Vowels

Diphthongs

![Diagram of Vowels and Diphthongs]
The second elements of the diphthongal glides i.e. /i/ and /u/ and the semi-vowels /y/ + /œ/ and /w/ + /œ/ respectively may be in free variation in some styles of speech e.g.

- [teiktøb] as well as [teyktøb]
- [xaib] as well as xayøb]
- [saub] as well as [sawøb]
- [boid] as well as boyød]

Their respective phonetic realisations however are quite discernible, and phonologically as well as morphologically they follow quite clear patterns as we shall see later. This explains perhaps why in four treatments\(^6\) of these elements especially, and in fact of the sound types of M.A. as whole, no two investigators came up with the same results.

In phonetic terms, I listed 12 different qualities of the vowel sounds. These 12 vowels were found, however, to be in complementary distribution in different context, i.e. in terms of adjoining consonantal sounds which can be said to colour or condition the vowels in their contiguity.

In this respect three consonantal features were found to be relevant, i.e. emphatic, guttural, non-emphatic, non-guttural.

C. The emphatics

The emphatic consonants always accompany what I referred to as tense vowels i.e. my numbers: 3 \([+)\], 6 \([a]\), 9 \([\ddot{a}]\], and 12 \([o]\)

These occur next to any emphatic or emphasised\(^7\) consonant but only in this context.

D. Gutturals

This category includes what may be described as « back consonants » i.e. the velar, the uvular and the glottal consonants /k, g, q, ŋ, x, h, (ʔ)/, not the pharyngal consonants.

The vowels occurring in the contiguity of these gutturals are my numbers: 2 \([i]\), 5 \([a]\), 8 \([ʌ]\) and 11 \([v]\)

\(^6\) Z. Harris : (1942)
J. Cantineau — (1950)
L. Brunot — (1950)
S. Harrel — (1962)

\(^7\) Emphasised is used here for any consonant that occurs adjacent to or within the same syllable where there is an emphatic consonant.
E. Non-emphatic, non-gutturals

This category includes all the remaining consonants i.e. /b.f.m.t.d.s.z.r. n.l.s.j. w. and y/. plus the two pharyngal consonants /ç/ and /h/.

Next to these occur only my numbers: 1 [i], 4 [æ], 7 [u] and 10 [u].

Thus we can conclude from the above restrictions on the occurrences of vowels and consonants that, at least at syllabic level, the feature of E predominates in conditioning the vowel quality. If there is no emphatic consonant, the feature of guttural predominates over non-emphasis, non-gutturality, and, therefore, conditions the adjoining vowel. This can be summed up in tabular form in the following manner:

<table>
<thead>
<tr>
<th></th>
<th>next to N. emp. N. Gut.</th>
<th>next to Guttural</th>
<th>next to Emphat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>close</td>
<td>i</td>
<td>i</td>
<td>+</td>
</tr>
<tr>
<td>open</td>
<td>æ</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>rounded</td>
<td>u</td>
<td>r</td>
<td>o</td>
</tr>
<tr>
<td>central</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>

The above distinctions enable us to generalise four main qualities in the vowels of M.A. From now on, these will be represented with just one symbol each instead of three since, given the consonantal environment, we can predict the phonetic realisation of the vowels, viz:

/ɪ/ for [i] [i] [+]
/a/ for [æ] [æ] [a]
/o/ for [o] [ɔ] [u]
/a/ for [a] [ɔ] [u]

and we will write without ambiguity e.g.

/tab/ «he repented» /tæb/ «it has cooked»
/sif/ «sword» /ʃif/ «summer»
/zerb/ «he hurried» /ʒərb/ «thorns»
/rab/ «to curdle» /ræb/ «in ruins»
/ç edd/ «to bite» /s edd/ «to count»

(8) For typographical reasons, [a] will be replaced by the letter [e] in the rest of this paper.
II — E as a prosody of the syllable

Up to now I have almost entirely dealt with listing and describing the qualitative features of the sound types of M.A. and to some extent their distribution in utterances, though only in a sketchy manner. I have, however, mentioned in passing that the features of gutturality and emphasis — especially the second — extend beyond the limits of the sound with which they are associated, or which initiates them. With the feature of gutturality, at least one syllable is involved while with E very often a whole utterance is affected. That these are prosodic features is quite obvious and only a prosodic analysis can best account for each of them.

At the phonetic level of statement, E as opposed to non E is clearly perceptible. In every utterance characterised by the prosodic feature of E there is at least present one of the four emphatics listed above i.e. /s/, /z/, /t/, /d/ and the alveolar roll /r/, although the latter is of less frequent occurrence. The above sounds initiate E and are its focal point. From this focal point — which may occur either in an initial medial or final position — emphasis extends to the following and/or preceding sounds, depending on the position of the focal point. This resembles in a way the act of pouring milk into a cup of black tea or pouring tea over milk, or a greasy stain on an absorbent material.

For the study of emphasis in prosodic terms we must first state the phonological structure of the syllable of M.A. This may be set up in terms of, first the phonematic elements — assignable to 3 places in the syllable i.e. initial, medial and final and designated as C and V (consonant and vowel).

But first, let us consider the syllable structure of M.A. (syllables being identified as composed of one or more consonantal sounds acting as the onset and/or closure, plus a vowel sound acting as nucleus, the whole coming in a single chest pulse)

There are six types of syllables, i.e.\(^{11}\)

1. CV. e.g. ba «he wanted»
   jiti «you came»

\(^{9}\) The term focal point is used in connection with the statement of E prosody, i.e. whenever there is lateral expansion of the tongue, flattening of its tip, muscular tension, etc. initiated by one particular consonant in the phonematic structure. This consonantal element is the focal point (see below). But E being applicable to the word as a structural unit my statements do not bear on the study of locality as such. The term is used simply as an orientation, and in some cases (where there may be emphatics and emphasised counterparts) to state which is the initiator.

\(^{11}\) Geminates or doubled consonants are considered as 2 C\(,\) elements with the same value as a cluster of 2 different C\('.\)
We shall find this statement of the syllable structure in M.A. very useful especially when we come to consider what I call exhaustion of E in compound utterances (i.e. in the affixed forms) at a « checking point »\(^{12}\), (see below). We shall restrict ourselves for the time being to the prosodic feature of E in relatively simple forms.

As a prosodic feature of utterances, \( \tilde{E} \), must be referred to at least one focal place corresponding to one particular \( /C/ \) element. These may be either \( /t\), \( /d\), \( /s\), \( /z/ \) or \( /r/ \). As exponents of E, they occur in all positions in the syllable, i.e. as \( C_1 - C_2 - C_3 - C_4 \), depending on the type of syllable.

In context, the exponent of E at one of the 4 positions stated above extends to the preceding and following \( /C/ \) and \( /V/ \) elements\(^{13}\).

The extension of E over the following utterances is phonologically symbolized by the superscript E over the line of the \( /C/ \) and \( /V/ \) elements of the syllable (or syllables) concerned, while the superscription of E above a particular \( /C/ \) element marks it as its focal point.

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(13) There are, to my knowledge, no monosyllabic forms in the language with the structure \( /C V/ \) associated with \( E \), this does not exclude the syllabic structure \( C V \). However, Benhullam rightly pointed out the existence of the expletive ra « there » which is, in fact, unique in the system.
Monosyllabic forms:

\[
\begin{array}{ll}
E & /\text{sarn}/ «to fast» /\text{daľ}/ «to waste» \\
CVC & /\text{boš}/ «cat disease» /\text{fľ}/ «flood» \\
E & /\text{dwa}/ «to become bright» /\text{žga}/ «to scream» \\
CCV & /\text{mda}/ «to become sharp» /\text{ža}/ «to become stiff» \\
E & /\text{šref}/ «to spend (money)» /\text{žber}/ «to prwne» \\
CCVC & /\text{hșed}/ «to reap» /\text{křem}/ «to be generous to somebody» \\
E & /\text{hbeľ}/ «to go down» /\text{šbar}/ «manure» \\
CCVC &
\end{array}
\]

Monosyllabic forms (Contd.)

\[
\begin{array}{ll}
E & /\text{šerb}/ «gutter» /\text{ďelm}/ «to do injustice to» \\
CVCC & /\text{berď}/ «to file» /\text{beřz}/ «to come out» \\
E & /\text{bers}/ «skin disease» /\text{xelț}/ «to join (somebody)» \\
CVCC & /\text{dđeb}/ «the pressure» /\text{ṭrabš}/ «hats» \\
E & /\text{mșerľ}/ «ditch» /\text{mdarb}/ «mattresses» \\
CCVC & /\text{mxatľ}/ «hooks» /\text{lboj}/ «the castle tower» \\
E & /\text{lerđ}/ «pension, alimony» /\text{mqabľ}/ «pins» \\
CCVC &
\end{array}
\]
On the whole, the same phenomenon is also observable in utterances with more than one syllable. In such cases, again, the exponent of E can occur with any /C/ element at syllable level and with any syllable in the utterance i.e. initially — medially or finally. Irrespective of which is its focal point in terms of these three positions, E extends beyond the syllabic structure where it has this focal point. Such a syllable will be referred to as the focal syllable. As one would expect, there are utterances with more than one (or what might appear as more than one) focal syllable. The existence in polysyllabic structures of more than one focal syllable does not however affect the above statements. Such structures will be tackled in more detail in the study of the grammatical status of E (i.e. in conjunction with affixed forms).

The following examples illustrate E with disyllabic and polysyllabic structure. For the time being, the focal syllable is referred to only one of the three positions mentioned above, i.e., initial, medial and final.

**Initially**

<table>
<thead>
<tr>
<th>Word</th>
<th>Syllable Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>şala «bedroom»</td>
<td>E CVCV</td>
</tr>
<tr>
<td>ıralel «moving away»</td>
<td>E CVCVC</td>
</tr>
<tr>
<td>zayani «from the Zayan tribe»</td>
<td>E CVCVCV</td>
</tr>
<tr>
<td>ıaramabila «a swallow»</td>
<td>E CVCVCVCVCVC</td>
</tr>
</tbody>
</table>

**Medially**

<table>
<thead>
<tr>
<th>Word</th>
<th>Syllable Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>ıaşifa «tempest»</td>
<td>E CVCVCV</td>
</tr>
<tr>
<td>ıerrekşi «from Marrakesh»</td>
<td>E CVCCVCCV</td>
</tr>
<tr>
<td>ıozona «a farthing»</td>
<td>E CVCVCV</td>
</tr>
<tr>
<td>ıatişia «tomato»</td>
<td>E CVCVCV</td>
</tr>
<tr>
<td>ızeddarin «Vegetable vendors' street»</td>
<td>E CVCVCCVCVC</td>
</tr>
</tbody>
</table>

(14) In regard to polysyllabic forms, research revealed that combinations of the syllabic structures listed above can yield structures of up to six syllables including certain types of affixes e.g. men taramabilat «from the swallows», and in any case not exceeding six.
Finally:

\[ \text{messan} \quad \langle \text{Sucking} \rangle \quad \text{CVCCVCC} \]

\[ \text{bezzat} \quad \langle \text{Fat tummies} \rangle \quad \text{CVCCVCC} \]

\[ \text{lexyata} \quad \langle \text{Sewing} \rangle \quad \text{CVCCVCCV} \]

\[ \text{ferstelhamd} \quad \langle \text{Lemon orchard} \rangle \quad \text{CVCCVCCVCCVCC} \]

\[ \text{qafetbennahid} \quad \langle \text{District name} \rangle \quad \text{CVCCVCCVCCVCCVCC} \]

These are only a few examples of disyllabic and polysyllabic structures characterised by E irrespective of the position of the focal syllable. In fact all the examples given up to now have E extending over all the phonematic units. In regard to my earlier statement concerning the «exhaustion» and /or «checking point» of E, the facts up to this stage imply that the limit of E is the word boundary. Thus word boundary is the most obvious and most common checker of E. This was recognised, or at least it was implicit, in Cantineau’s statement about emphasis, though it was expressed in somewhat psychological terms, i.e.:

«Le synharmonisme est la conséquence d’une tendance de ces parlers à éviter les brusques contrastes phoniques, à accommorder la réalisation des voyelles à la classe articulatoire des consonnes voisines, et à faire dépendre dans une certaine mesure la réalisation des consonnes du timbre des voyelles qui les entourent\(^\text{15}\).”

However in his review of Harris’s article, Cantineau notes that:

«En ce qui concerne la corrélation d’emphase, Harris a bien vu qu’une consonne emphatique dans un mot tend à emphatiser d’autres consonnes du mot et communique aux voyelles un timbre particulier, de sorte qu’une partie du mot, voire le mot tout entier\(^\text{16}\) devient emphatique : l’emphase déborde le phonème consonantique pour devenir un trait caractérisant une ou plusieurs syllabes, en somme, un trait prosodique de différenciation »\(^\text{17}\).

But Harris’s recognition of emphasis is one thing, his treatment of it is quite another. His main concern apparently is the environmental distribu-

\(\text{15}\) J. Cantineau — 1951, p. 194.

\(\text{16}\) My underlining.

\(\text{17}\) J. Cantineau — 1950 p. 206.
tion of sounds, and it seems as though this is the only criterion for the definition and analysis of these sounds. The following quotation\(^\text{18}\) can be given as typical of his treatment of the phonology of the language:

«A domal tongue-tip trill /r/ occurs in morphemes containing t-d-s(\(^\text{2}\)) or q(\(^\text{19}\)) and in a few other words (often of foreign origin): d hər(\(^\text{20}\)) «back».

He does not go beyond such generalisations and mapping of the phonic data. In fact the most unsatisfactory treatment of emphasis is that proposed by Harris. After what seems a long hesitation about what to do with the emphatic consonants, he decides to «separate» off the feature of back position from the consonants (and from the few cases of [a] not next to emphatics) and consider it a distinct phoneme «/r/... and use it both for the so-called emphatic consonants and for the distinction between /a/ and /æ/»(\(^\text{21}\))

Then he gives a series of examples:

\[
\begin{align*}
/l\text{ilah}/ & = /l\text{la} \ h/ \\
/z\text{ina}/ & = z\text{ina} , \text{etc}
\end{align*}
\]

substituting, thus, one diacritic for another, which is an unnecessary complication and a misrepresentation of the facts.

As regards Louis Brunot’s and Harrell’s studies, though one finds a more or less similar preoccupation with phonemic analysis in terms of environment, there is no reference whatsoever to emphasis as a prosodic or suprasegmental feature.

In the case of Harrell, however, discussing emphasis in general terms in another work (Harrell, 1956, p. 27) and this time as «suprasegmental feature» he comments that:

«The traditional approach has been to treat independent emphatics as separate phonemes and conjunct\(^\text{22}\) emphatics as allophones of non-emphatics... To the present author’s knowledge no analyst has yet succeeded in precisely stating, either for classical Arabic or the dialects, the environments in which the independent emphatics call for emphatic allophones of the consonants».

Bearing in mind the results arrived at up to now in this paper and

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\(^{18}\) Harris — 1942 p. 311. / 1. 31.

\(^{19}\) He considers [q] V — less uvular plosive as the emphatic counterpart of [k].

\(^{20}\) This form is unknown to me. It is to be transcribed [dhaər]

\(^{21}\) Harris, 1942 — p. 316.

\(^{22}\) What I called emphasised consonant.
considering that M.A. is one of the «dialects», I think it is more relevant and more fruitful to reverse the terms of the question, i.e. stating precisely the «environments» in which emphasis is checked.

III — The morphological distribution of E

Up to this point the structure dealt with in terms of E prosody were relatively short or simple. But a more comprehensive study of E in M.A. must include longer utterances and more complex structures. Such an analysis is, however, inconceivable without reference to grammar. So far the grammatical status of utterances characterised by E was left aside. But observation of the data revealed that, especially in regard to the checking of E, certain types morphological boundaries must be considered. In what follows I shall therefore concern myself with the morphological and syntactic characteristics of the two major word classes i.e. verbals and nominals in terms of roots and affixes.

The term «nominal» is used as a common label for the exemplification of the categories of nouns, adjectives, numerals and certain participials. The affixes with which I am concerned are prefixes and suffixes. As for the term «root» a word of warning is in order, i.e. it is used in a sense larger than the institutionalised canonic forms. Many grammatical distinctions involve both affixation and differences of syllabication and vowel quality operating within the framework of a consonantal skeleton. For my purposes these differences are not relevant. The label «root» is used here for any linguistic item in its simplest or shortest and utterable\(^{23}\) form but with at least one lexical connotation. The affixes listed below are only those which reject or check E.

The affixes in question are of various forms and fill each a distinct grammatical function in particular syntagms. In phonetic and phonological terms, however, these affixes have as a central consonantal element either /t/, /y/, /w/ or /k/, and /or any combination of them.

Very briefly:

1. Perfective personal suffixes

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person</td>
<td>R(^{24}) + t</td>
<td>ḫtebt</td>
</tr>
<tr>
<td>2nd person</td>
<td>R + ti</td>
<td>ḫtebtį</td>
</tr>
<tr>
<td>3rd person fem.</td>
<td>R + at</td>
<td>ḫeḥbat</td>
</tr>
</tbody>
</table>

\(^{23}\) When /t/ /k/, as affix-radicals, are not emphasised for the reasons stated below, they are slightly aspirated. /t/ final in utterances is even slightly affricated /tʰ/.

\(^{24}\) R = any root.

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2. Non-perfective personal prefixes

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd. person</td>
<td></td>
</tr>
<tr>
<td>t (e) + R</td>
<td>t (e) + R + e.g.</td>
</tr>
<tr>
<td>3rd. person masc.</td>
<td>y (e) + R</td>
</tr>
<tr>
<td>y (e) + R</td>
<td>y (e) + R + e.g.</td>
</tr>
<tr>
<td>3rd. person fem.</td>
<td>t (e) + R</td>
</tr>
<tr>
<td>t (e) + R</td>
<td>y (e) + R + e.g.</td>
</tr>
</tbody>
</table>

3. Non-perfective continuative or habitual prefixes

(In this category /t/ and /k/ are in free variation)

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person</td>
<td>tan + R or k + R</td>
</tr>
<tr>
<td>/tanē+hēb/ or /kaneh_/</td>
<td></td>
</tr>
<tr>
<td>2nd person masc.</td>
<td>tat + R or kt + R</td>
</tr>
<tr>
<td>/tate+hēb/ or /katēh_/</td>
<td></td>
</tr>
<tr>
<td>2nd person fem.</td>
<td>tat + R + i kt + R + i</td>
</tr>
<tr>
<td>/tathēti/</td>
<td></td>
</tr>
<tr>
<td>3rd person masc.</td>
<td>t(aye) ei + R or k(aye)ei</td>
</tr>
<tr>
<td>e.g. /tayē+hēb/ or /kayeh_/</td>
<td></td>
</tr>
<tr>
<td>3rd person fem.</td>
<td>tat + R or kat + R</td>
</tr>
<tr>
<td>e.g. /tate+hēb/ or /katēh_/</td>
<td></td>
</tr>
</tbody>
</table>

Plural

| 1st person                | tan + R                 |
| tanē+hēbo                 |
| 2nd person                | tat + R                 |
| tatē+hēbo                 |
| 3rd person                | t (av) ei               |
| tayē+hēbo                 |

4. Verbal noun prefixes

| t (e) + R : (the act of doing something) |
| tešjab (sweeping the floor) |

5. Nouns of professions and personal characteristics affixes

| t + R + t /t a x e d a r t/: «the profession of a greengrocer.» |
| /t a s e f a r t/: «the profession of a thief» |

6. Nominal Feminine Plural suffixes

| R + at /γ l a d a t/: «fat ones» |

7. Suffixes of origin

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Masc.) R + wi</td>
<td>R + wi</td>
</tr>
<tr>
<td>(Fem.) R + wi + ya</td>
<td>R + wi + ya t.</td>
</tr>
<tr>
<td>/b i d a w i/:</td>
<td>(a man from Casablanca).</td>
</tr>
<tr>
<td>/b i d a w a/:</td>
<td>(men from Casablanca.)</td>
</tr>
<tr>
<td>/b i d a w i y a/:</td>
<td>(a woman from Casablanca.</td>
</tr>
<tr>
<td>/b i d a w i y a t/:</td>
<td>(women from Casablanca.)</td>
</tr>
</tbody>
</table>
8. Feminine Possessive suffixes

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>R + ti :</td>
<td>«my»</td>
</tr>
<tr>
<td>R + tek :</td>
<td>«your»</td>
</tr>
<tr>
<td>R + to :</td>
<td>«his»</td>
</tr>
<tr>
<td>R + tha :</td>
<td>«her»</td>
</tr>
</tbody>
</table>

IV — Extent and limits of E

All these affixes and a few other particles were found to bring about the onset of non E. On the other hand, utterances of the grammatical and phonological structural forms listed below are perhaps the only ones which, in combination with the above affixes, exhibit this feature of E checking; this can only occur at specific syllable boundaries — the word «specific» is underlined because whenever there is one of the structural forms listed below there is a check point.

The condition of checking or non-checking is referable to the position of the focal syllable in structures — i.e. it was found that in relation to the above affixes, E is irremediably checked if the focal syllable is separated from the affix by at least one syllable. If the affix is immediately after or before the focal syllable, E extends unchecked.

These rules can be represented formulaically as follows:

- **Definition of the symbols used:**
  
  CV — any of the syllabic structures in M.A. (see above)
  
P — (under the line of the phonematic units) refers to the domain of the prefix.
  
  R — (under the line of the phonematic C and V elements) delimits what can be considered as the root.
  
  S — Suffix.
  
  / — (A slant line between the phonematic elements) marks the checking point.
  
  E — (above the line of the phonematic elements) as before marks the focal point.
  
  — (above the phonematic elements) marks the domain of E.

As an orientation, the structures of P, R and S are delimited by — — under the line of the phonematic elements.
All the following rules are exemplified using most of the affixes listed above. As an indication of which ones are used, a number is given with each example referring to the entry number of one of the nine types of affixes listed above.

Rule 1.
E extends over the affixes if these are next to the focal syllable.

Symbolisation

\[
\begin{array}{c}
E \\
\overbrace{CV CV CV} \\
P \quad R \quad S
\end{array}
\]

Examples:
(a) \(\text{ṁ ṭ e b t i} \) (i)\(^{(25)}\)
   «you picked up wood»
   but ṣelliti
   «you prayed»

Examples:
(b) \(\text{y e ŏ l e ŝ} \) (II)
   «he goes up»

(c) \(\text{kattbe ŝ} \) (III)
   «you (she) is stamping»

(d) \(\text{t e ŕ w i r} \) (IV)
   «photography making»

(e) \(\text{l e ŕ l i d a t} \) (VI)
   «the fat ones (fem.)»

Structural formula

\[
\begin{array}{c}
-E \\
\overbrace{C C V C C V} \\
R \quad S
\end{array}
\]

(25) The small Roman numbers between brackets refer to the eight morphological rules above.
Examples:

(g) brātha (VIII)
«her repudiation document»

(h) testikom (II)
(+ Nom-suf-object.)

Rule 2.

E does not extend over the affixes if at least one other syllable separates them from the focal syllable.

Symbolisation

\[
\text{CV} / \text{CVCCVCV} / \text{CV}
\]
\[
P \quad R \quad S
\]

Examples:

1. E checked on the prefix (not on the suffix if there is one as well).

(a) taiwessel (III)
«he gets — is getting
(something to somebody).»

(b) kay e h di (III)
«he keeps — is keeping an eye on...»

(26) In sequences of prefixes or suffixes e.g. P + P + R or R + S + S etc. E is characteristic of only the one immediately after or before the focal syllable, e.g. tatehteb =

\[
\text{CV} / \text{CVCCVCV}
\]
\[
R1 \quad R2 \quad R
\]
Examples:

(c) ṭaṭṭleṣ (III)  
«she comes up — is coming up»

Examples:

ttbendid (IV)  
(the act of showing off)

(e) txeḍdar(e)t (V)  
(the profession of vegetable selling)

(f) tasʃeffaṛ(e)t (V)  
(the characteristic of being a thief).

2. E checked on the suffix (not on the prefix if there is one.)

(a) žeṛrebti (I)  
you have surrounded with a hedge.

(b) ṭeyyabat (VI)  
ladies' masseuse in a moorish bath.

Examples: (Contd.)

(c) tanjawi (VII)  
(a man from Tangiers)

but

(d) tanjawiyaya (VII)  
(a lady from the same city)

(e) sabonti (VIII)  
«my piece of soap»

3. **E checked on both prefix and suffix**

(It must be borne in mind here again that the affixes referred to are the initial prefix and ultimate suffix only).

(a) **t a m e r r a k ˘ s i y (e) t (V)**
(The behaviour of a native of Marrakesh)

(b) **t a b o t a l i y (e) t (V)**
(the characteristic of laying calumnies on people).

(c) **teibet ˛ enhalik (III) and (IV)**
«he is lining it (a dress) for you.»

Beside word boundary, the environments stated above are on the whole the most current ones at which E is checked; otherwise, it extends over the whole of the syntagm, not to say the sentence. But to leave the statements as they are at this point of the analysis of E would imply that E is a prosody of the «word» alone, as it was suggested by Harris and Cantineau.

Observation of many relatively long utterances including collocations, word-compounds, phrases, and sometimes short sentences, revealed that in the absence of one of the conditions stated above, in conjunction with affixes and particles, E extends beyond the unit in which it has its focal syllable, until it exhausts itself either before an affix or a pause.:

The following are a few examples of collocations, phrases and relatively short sentences characterized by E prosody. The units over which E extends are underlined once, and their focal syllable twice. The check-point — when there is one — is indicated by a slant line. It is quite difficult at this level to state precisely where the check-point occurs, specially in connected rapid speech. In the dialect considered, the domain of E may vary between two people, and even in the speech of the same person, though less frequently.
Compounds and collocations

1. With ben (« son of » also a proper name), used also as an insult when it collocates with the name of a beast, a bodily defect, etc.:

- bentṭaher: proper name: Tahar’s son.
- beneśṣeṭfar: « son of a thief »
- beneddbeṭ: « son of a hyena »
- benettellab: « son of a beggar »

2. With /bent/ (fem. form of the above cx.), E is checked in certain contexts:

- bentṭettar: « the spice vendor’s daughter »
- bentṭatalb: « the teacher’s daughter »
- bentelṭeddar: « the greengrocer’s daughter »
- benteddalem: « the unjust man’s daughter (an insult) »

3. With soq (market):

- soqṭṭihan: « the bladder market »
- soqezzrabī: « the carpet market »
- soqbatata: « the potato market »
- soqṭṭalt: « the market held on Tuesdays »
- soqlemdaṭ: « the belt market »

4. With mol (the person owning, or in charge of, something):

- molṭṭar: « the head of the family »
- moleddo: « the electricity board controller »

5. With nel (to curse — in the imperative, collocates with « iblis » and « šītan », both meaning the devil.):

- nelissītan: « curse Satan and be sensible »

6. With wad (wadi, river)

- wadro: « the Dra wadi »
- wademmerbī: « the Oumerbia wadi », etc.

Phrases and short sentences

For an exemplification of E extending over these, transcriptions of a short text of connected speech is given below. The text is an adaptation of the well known story « the North Wind and the Sun »(27). The domain of E is delimited as in the preceding section.

Conclusion

I have tried, in this paper, to show how the phonetic feature of emphasis in Moroccan Arabic can be accounted for, in a systematic way. I have done this in accordance with the current methods of phonological analysis as developed in British linguistics, more currently referred to as Firthian Linguistics.

I realize, however, that in my treatment of emphasis an element is missing, i.e., precise physiological and acoustic measurement of the feature studied. All along, I had the feeling that, as regards tenseness, there is a peak reached on the focal syllable, before and after which occur, respectively, an increase in the degree of emphasis and a decrease towards normal position. But again, these qualities of emphasis would have to be measured only in physiological terms for check and corroboration.
BIBLIOGRAPHY


Textes Arabes de Rabat, Publications de l'Institut des Hautes Études Marocaines, tome XX. Paris, 1931


«The Active Participle in an Arabic Dialect of Cyrenaica,» B.S.O.A.S., 14, 1, 1952

Colloquial Arabic, the Living Language of Egypt, Teach Yourself Series. London, 1962