Hollow and defective verbs: a lexical explanation
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My aim is to provide a pedagogically usable and exhaustive explanation of the conjugation of hollow and defective verbs. This implies that the difference between the form provided by morphology and the phonetic realisation is either trivial as in /rama+a/>ramā or involves a minimal phonetic modification. Thus I consider the following transformation acceptable: /uw/ is transformed into ā in /katab+uw/>katabū, all the more so as /uw/ is precisely the graphical representation of the long vowel ā in Arabic: كتبوا katabuwa. On the other hand, derivations such as the following are impossible:
/qawal+at/>/qawul+at/>qawala+at/>/qaal+at/> qālat (BRAME, 1970);
/qawal+at/>/qawul+at/>qawala+at/>/qaal+at/> qālat (KOULOUGHLI, 1979).

My approach is purely synchronic. Here I am not interested in whether or not at a certain distant moment or period in the language’s history – which is inaccessible to us anyway – native speakers pronounced as *qawala what is nowadays pronounced qāla. I am interested in the fact that when, concerning qultu, a present day native

1 I deliberately use the term “conjugation”; I will not be dealing with nominal morphology and phonology.
2 Instead of writing phonetic representations between square brackets […], I will use italic typeface.
3 For these two competing derivations, see KOULOUGHLI (1979, p. 69).
speaker is asked, “What is this verb?” he/she answers: “It’s the verb qāla!” and not a hypothetical *qawala or *qawaltu. I have demonstrated at length (BOHAS, 2002) that most present day native speakers have no conscious awareness of these abstract phonological representations: /qawal+a/ and /qawal+tu/. If these speakers cannot access such abstract levels, why did certain linguists so stubbornly and at such length strive, and still do so, to make them the starting point of their analyses? J.-P. Angoujard’s declarative phonology perspective represents the polar opposite to this abstract approach. For him, grammar comprises neither abstract representations nor rules; but I do not see how one can pedagogically exploit the surface representations he proposes, such as, for example, the representation of *ramat (ANGOUJARD, 2006, p. 165):

\[
\left\{ \begin{array}{l}
\langle r, \overline{1}, m, \overline{2}, (I \lor \emptyset) \rangle \varnothing \langle a, t \rangle \\
\land v \_ acc = a_{\overline{2}} \\
\land accompli \Rightarrow a_{\overline{1}} \\
\land G \_ et \_ son \\
\land PCO \\
\land mod \_ H \\
\end{array} \right.
\]

\[= < r, a, m, a_{\overline{2}}, t > \]

Fig. 7.9 – Forme /ramat/

Clearly, his aim was purely linguistic and definitely not pedagogical.

This study pursues the line of research I have undertaken into the Arabic lexicon published in Théorie des matrices et des étymons (see BOHAS & DAT, 2007). Since I have replaced the root with the radical in the lexicon, I do not see why I should use the root in morphology or phonology. The starting point for this explanation will thus be the radical, in other words, a pronounceable, audibly perceptible object including consonants and vowels, not a purely consonantal skeleton which is nothing more than a grammarian’s concept that is inaccessible to native speakers.

If one wishes to organize a phonology which does not use the “root” level representation, while still basing it upon the Arabic grammarians’ idea that the basic form of the conjugation is the perfective (which is, as

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4 See, for example, PRUNET & alii (2000).
we all know, diachronically false), one has to abandon the elegant parallelism:

\[
\text{CaCaC+a}
\]
\[
/katab+a/
\]
\[
/\text{ramay+a}/
\]
\[
/qawal+a/
\]

in favour of katab+a, rama+a, qāl+a. In other words, my approach implies that we no longer posit the existence of a single triconsonantal radical – CVCVC – for the perfective and ya+CCVC for the imperfective, but that we rather base the analysis upon various observable radicals. Nevertheless, no matter which model one adopts, one datum remains essential: the knowledge of the apophonic vowel, namely, the vowel of the imperfective. In other words, the lexicon must provide the information: katab/u (that is, the imperfective of kataba will be yak\text{tubu} not *yaktibu or *yakt\text{a}bu), which all dictionaries present in one way or another. We thus have katab/u and ḏarab/i as starting points leading to yak\text{tubu} and yaḍribu as the imperfective form.

1. Hollow verbs

As far as hollow verbs are concerned, the lexicon will have to provide two radicals for the perfective, as well as the apophonic vowel: a ġāC radical when the suffix begins with a vowel; and a CvC radical when the suffix begins with a consonant. For the imperfective, a CūC\textsuperscript{5} radical will suffice.

1.1. qāla, qultu, yaq\text{ulu}

1.1.1. perfective

\[
\text{RA}D 1 \quad \text{qāl/}_V
\]
\[
\text{RA}D 2 \quad \text{qul/}_C
\]
\[
\text{VA} \quad \text{u}
\]

The above is to be read as follows: radical = qāl if followed by a suffix beginning with a vowel; radical = qul if followed by a suffix beginning with a consonant; VA = the apophonic vowel: u.

\textsuperscript{5} I use the symbol ū for long vowels since my software does not provide the sign v overlined.
Forms with a suffix beginning with a vowel: \text{RAD 1}

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>3 s. m.</td>
<td>qāl+ā</td>
<td>qāla</td>
</tr>
<tr>
<td>3 s. f.</td>
<td>qāl+at (⁺ā dual)</td>
<td>qālāt/qālatā</td>
</tr>
<tr>
<td>3 pl. m.</td>
<td>qāl+ū</td>
<td>qālū</td>
</tr>
<tr>
<td>3 du. m.</td>
<td>qāl+ā</td>
<td>qālā</td>
</tr>
</tbody>
</table>

Forms with a suffix beginning with a consonant: \text{RAD 2}

<p>| | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>qul+tu</td>
<td>qultu</td>
</tr>
<tr>
<td>2 s. m.</td>
<td>qul+ta</td>
<td>qulta</td>
</tr>
<tr>
<td>2 s. f.</td>
<td>qul+tī</td>
<td>qulti</td>
</tr>
<tr>
<td>1 pl.</td>
<td>qul+nā</td>
<td>qulnā</td>
</tr>
<tr>
<td>2 pl. m.</td>
<td>qul+tum+(ā du.)</td>
<td>qultum/qultumā</td>
</tr>
<tr>
<td>2 pl. f.</td>
<td>qul+tunna</td>
<td>qultunna</td>
</tr>
<tr>
<td>3 pl. f.</td>
<td>qul+na</td>
<td>qulna</td>
</tr>
</tbody>
</table>

1.1.2. Imperfective

Given the radical CῡC and the apophonic vowel u, the ya+qūl+u form is immediate: \text{yaqūlu}. The same applies to ya+qūl+ūna > yaqūlūna, ya+qūl+āni > yaqūlāni.

The only forms of the imperfective indicative which require the intervention of a rule will be 2 pl. f. \text{taqūlna} and 3 pl. f. \text{yaqūlna}. The initial representation will be: /ya+qūl+na/. Therefore, the only rule required is:

\text{ABR}: \text{in a closed syllable, a long vowel will be abbreviated:}

/yaqūlna/ > yaqūlna and /taqūlna/ > taqūlna.

In apocope, the abbreviation rule obviously applies to lam /taqūl/ > \text{taqūl}, &c., since in taqūl, the ū is in a closed syllable.

1.2. bāʾa/biʿtu/yabiʿu

1.2.1. Perfective

\text{RAD 1} \quad bāʾ/\_V
\text{RAD 2} \quad biʾ/\_C
\text{VA} \quad i
Forms with a suffix beginning with a vowel: RAD 1

3 s. m. bāʿ+ a bāʿa
3 s. f. bāʿ+ at (+ā du.) bāʿat/ bāʿatā
3 pl. m. bāʿ+ ū bāʿū
3 du. m. bāʿ+ ā bāʿā

Forms with a suffix beginning with a consonant: RAD 2

1 s. m. biʿ+ tu biʿtu
2 s. m. biʿ+ ta biʿta
2 s. f. biʿ+ ti biʿti
1 pl. biʿ+ nā biʿnā
2 pl. m. biʿ+ tum (+ā du.) biʿtum/biʿtumā
2 pl. f. biʿ+ tunna biʿtunna
3 pl. f. biʿ+ na biʿna

1.2.2. Imperfective

Given the radical CūC and the apophonic vowel i, the form ya+bīʿ+u > yabīʿu is immediate. The same applies to 3 pl. m. ya+bīʿ+ūna > yabīʿūna and 3 du. m. ya+bīʿ+ānī > yabīʿānī.

In apocopation, the abbreviation rule obviously applies to ’abī', tabī', &c. since in ’abī', the i is in a closed syllable giving ’abī', tabī', &c.

1.3. ḥāfa/ḥiftu/yaḥāfu

1.3.1. Perfective

RAD 1 ḥāf/_.V
RAD 2 ḥīf/_.C
VA a

Forms with a suffix beginning with a vowel: RAD 1

3 s. m. ḥāf+ a ḥāfa
3 s. f. ḥāf+ at (+ā du.) ḥāfat/ ḥāfatā
3 pl. m. ḥāf+ ū ḥāfū
3 du. m. ḥāf+ ā ḥāfā
Forms with a suffix beginning with a consonant: \textit{RAD} 2

1 s. m. \begin{tabular}{l}
\textit{ḥif}+tu \end{tabular} \begin{tabular}{l}
\textit{ḥiftu}
\end{tabular}

2 s. m. \begin{tabular}{l}
\textit{ḥif}+ ta \end{tabular} \begin{tabular}{l}
\textit{ḥifta}
\end{tabular}

2 s. f. \begin{tabular}{l}
\textit{ḥif}+ ti \end{tabular} \begin{tabular}{l}
\textit{ḥifti}
\end{tabular}

1 pl. \begin{tabular}{l}
\textit{ḥif}+ nā \end{tabular} \begin{tabular}{l}
\textit{ḥifnā}
\end{tabular}

2 pl. m. \begin{tabular}{l}
\textit{ḥif}+ tum (+ā du.) \end{tabular} \begin{tabular}{l}
\textit{ḥiftum}/\textit{ḥiftumā}
\end{tabular}

2 pl. f. \begin{tabular}{l}
\textit{ḥif}+ tunna \end{tabular} \begin{tabular}{l}
\textit{ḥiftunna}
\end{tabular}

3 pl. f. \begin{tabular}{l}
\textit{ḥif}+ na \end{tabular} \begin{tabular}{l}
\textit{ḥifnā}
\end{tabular}

1.3.2. Imperfective

Given the radical \textit{CῡC} and the apophonic vowel a, the form \textit{ya}+\textit{ḥāf}+u > \textit{yaḥāfu} is immediate. The same applies to 3 pl. m. \textit{ya}+\textit{ḥāf}+ūna > \textit{yaḥāfūna} and 3 du. m. \textit{ya}+\textit{ḥāf}+āni > \textit{yaḥāfānī}.

In apocope, the abbreviation rule obviously applies giving \textit{ʾaḥaf}, \textit{taḥaf} &c. since in \textit{ʾaḥāf}, the ā is in a closed syllable.

1.4. Passive

In the passive, the hollow verbs present the following alternations:

1.4.1. \textit{qāla}

Perfective : 3 s. m. \textit{qi}la \hspace{1cm} 1 s. m. \textit{qiltu}

Imperfective : 3 s. m. \textit{yuqālu} \hspace{1cm} 3 pl. f. \textit{yuqalna}

1.4.2. \textit{bāʿa}

Perfective : 3 s. m. \textit{bi}ʿa \hspace{1cm} 1 s. m. \textit{bu}ʿtu

Imperfective : 3 s. m. \textit{yubāʿu} \hspace{1cm} 3 pl. f. \textit{yubaʿna}

1.4.3. \textit{ḥāfa}

Perfective : 3 s. m. \textit{ḥīfa} \hspace{1cm} 1 s. m. \textit{ḥuftu}

Imperfective : 3 s. m. \textit{yuḥāfu} \hspace{1cm} 3 pl. f. \textit{yuḥafna}

In short, in the perfective, the radical followed by a consonant manifests a polarity in relation to the radical of the active, although, in the traditional conception, the underlying representation is analogous: \textit{fuʿiltu}, \textit{quwiltu}, \textit{buyi}ʿtu et \textit{ḥuwiftu}:
active 1 s. / passive 1 s.

qultu  qiltu
bi’tu  bu’tu
ḫiftu  ḫuftu

One can wonder how the supporters of abstract representations can go about deriving these divergent forms from identical representations.

In the imperfective, a single radical suffices for all three: CāC.

<table>
<thead>
<tr>
<th>3 s. m.</th>
<th>3 pl. f.</th>
</tr>
</thead>
<tbody>
<tr>
<td>yu+qāl+u &gt; yuqālu</td>
<td>yu+qāl+na &gt; yuqalna</td>
</tr>
<tr>
<td>yu+bā’u &gt; yubā’u</td>
<td>yu+bā’+na &gt; yuba’na</td>
</tr>
<tr>
<td>yu+ḥāf+u &gt; yuḥāfu</td>
<td>yu+ḥāf+na &gt; yuḥafna</td>
</tr>
</tbody>
</table>

The abbreviation rule accounts for the forms in which the suffix begins with a consonant.

1.4.4. Summary for the passive

For the perfective:

qāla : qīl for both types of suffix
bā’a : bi’/ V and bu’/ C
ḥāfa : ḥīf/ V and ḫuf/ C

1.5. General summary of the organisation of the conjugation of hollow verbs

Perfective: radicali, radicalj + suffix _Vl or _Cj

Example: RAD1  qāl/_ V
RAD 2  qul/_ C
VA : u

Imperfective: prefix + CūC + suffix

this ū has the same quality as the apophonic vowel.

1.6. Conclusion

For the moment, the phonology can be summarized in one rule: ABR ū > v in closed syllables.
2. Defective verbs

2.1. Considerations on suffixes

Let's examine the following paradigms:

**Perfective:**
- 1 s. $katabtu$
- 2 s.m. $kataba$
- 3 s.f. $katabat$
- 3 pl. m. $katabū$

**Imperfective:**
- 3 pl. m. $yaktubūna$
- 2 s.f. $taktubīna$

**Perfective:**
- 1 s. $ramaytu$ $da'awtu$ $raḍītu$
- 3 s.m. $ramā$ $da'ā$ $raḍiya$
- 3 s.f. $ramat$ $da'at$ $raḍiyat$
- 3 pl. m. $ramaw$ $da'aw$ $raḍū$

**Imperfective:**
- 3 pl. m. $yarmūna$ $yad'ūna$ $yarḍawna$
- 2 s.f. $tarmīna$ $tad'īna$ $tarḍayna$

Ordinarily, as I have done so far, the following form is given to suffixes:

**Perfective:**
- $katab+tu$ tu 1 s.
- $katab+a$ a 3 s.m.
- $katab+at$ at 3 s.f.
- $katab+ū$ ě or uw$^6$ 3 pl. m.

**Imperfective:**
- $yaktub+ūna$ ě or uw 3 pl. m.
- $taktub+īna$ ė or iy 2 s.f.

And for the defectives, representations in which suffixes features in this same form are used, as for example: $yarmiy+uw+na$, the sequence iy+uw+na, being transformed by various rules into ūna, and ramaya+at+aa into ramatā, with recourse to various tricks to eliminate the undesirable *ramatā*, indeed, why should we shorten the long vowel when the syllable is open?

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$^6$ See Brame’s argumentation positing that the phonological form of long vowels is uw and iy; which corresponds to the graphical representation: uw and iy of Arabic writing. Re-used by Kouloughli (1979).
As I see it, this is “the fly in the ointment”. The form of the suffixes is not that found above, but rather the following:

- Suffixes with initial consonant: tu, ta, ti, na, nā, tum, tumā, tunna; nothing new.
- Suffixes with initial vowel: a(nna) and ā(ni).

\(^{a}t\)  In verbs, the vowel is not activated when the radical ends with an identical vowel, that is: a. In other words, if there is already an a, the a is not activated, whereas it is in other contexts.

\(^{w}w\) The vowel is activated when the radical ends with a consonant. It is not activated when the radical ends with a vowel.

\(^{y}y\) The vowel is activated when the radical ends with a consonant. It is not activated when the radical ends with a vowel.

2.2. ramā

Perfective, radicals: 1) short CVCa /\_suffix with initial vowel

2) long CVCay/\_suffix with initial consonant

Imperfective: short radical: CCV/\_V

long radical: CCVG/\_C (G=glide)

The apophonic vowel has the same quality as the glide (i.e. the vowel and glide are homorganic) of the long radical of the perfective: y > i; w > u. Therefore, here: short: rmi/\_V and long: rmiy/\_C.

Examples:

Suffixes with initial consonant:

1 s. ramay+tu trivial: ramaytu

1 pl. ramay+nā trivial: ramaynā

Suffixes with initial vowel:

3 s. m. rama+a trivial aa>ā : ramā

3 s. f. rama+\(^{a}t\) > ramat

The radical ends with the vowel a, thus the vowel of the suffix is not activated; this also resolves the problem of the feminine dual ramatā.

3 du. f. rama+\(^{a}t+ā\) > ramatā

The radical ends with the vowel a, the vowel of the suffix \(^{a}t\) is not activated.
Compare this to:

\[ \text{katab} + ^{a}t \quad \rightarrow \quad \text{katabat} \]

The radical ends with a consonant, the vowel of the suffix is activated.

\[ \text{katab} + ^{a}t + ā \quad \rightarrow \quad \text{katabatā} \]

The radical ends with a consonant, the vowel of the suffix is activated.

Masculine plural:

\[ \text{rama} + ^{u}w \quad \rightarrow \quad \text{ramaw} \]

The radical ends with a vowel, the vowel of the suffix is not activated.

Compare this to: \text{katab} + ^{u}w. The radical ends with a consonant, the vowel of the suffix is activated:

\[ \text{katab} + ^{u}w \quad \rightarrow \quad \text{katabū} \]

This \text{katab} + ^{u}w > \text{katabū} alternation highlights a first lengthening process.

An identical phenomenon can be seen in:

Imperfective 2 f.: \text{ta+ktub} + ^{i}y + na. The radical ends with a consonant, the vowel of the suffix is activated:

\[ \text{ta+ktub} + ^{i}y + na \rightarrow \text{taktubīna}. \]

We thus observe that \text{uw} > ū and iy > ĩ. The homorganic vowel and glide are realised as a long vowel, providing \text{katabū} and \text{taktubīna}. We can also observe that in both cases the high vowel and glide belong to the same morpheme. Concerning this, I will formulate the following generalisation:

**\text{AL} \text{IM}** (a lengthening in one morpheme): the vowel and high glide are realised as a long vowel of the same quality as the vowel.

\[ \text{katab} + ^{u}w \quad \rightarrow \quad \text{katabū} \]

\[ \text{ta+ktub} + ^{i}y + na > \text{taktubīna} \]

Let us pursue our investigation. For the imperfective: 3 s. m. \text{ya+rmi} + u, we can observe that i+u > ĩ.

This case agrees with the vocalic scale of Arab grammarians: a > ĩ > u. In a group of two contiguous vowels, \( V_1V_2 \) in which \( V_1 \) is a high
vowel (ı or u), the i prevails over the u: i u > ĩ, thus: yarmī and in the case of a u, the a also prevails over the u, as in yarḍa+u > yarḍā. In homage to the Arab grammarians, we will call this generalisation, SONOSCALE.

Let’s now turn our attention to the 3 pl. m. yarmi+w+na. As the radical ends with a vowel, the vowel of the suffix is not activated: yarmi+w+na.

Using this alternation as a basis, we could formulate the following generalisation: i+w > ū and u+y > ĩ when the high vowel and high glide are not homorganic, the quality of the glide determines the quality of the long vowel. Prima facie, this would appear adequate, although one might wonder why the language retains the quality of the glide rather than the quality of the vowel. The answer to this question requires that we extend the data to include radicals with an initial w or y. I will now examine the following alternations:

\[
\begin{align*}
\text{mi+wqāt} & > \text{miqāt} \\
\text{mi+wzān} & > \text{mizān} \\
\text{mu+yqīnun} & > \text{mūqīnun} \\
\text{mu+ysūrūn} & > \text{mūsūrūn}
\end{align*}
\]

Here, one can observe i+w > ĩ and u+y > ū. Consequently, it is clear that the vowel determines the quality of the long vowel. What do mi+wqāt > miqāt and yarmi+w+na > yarmūna have in common? In both cases, the glide and vowel do not belong to the same morpheme. This is clearly not a phonological phenomenon but a morphophonological phenomenon. In mi+wqāt > miqāt and yarmi+w+na > yarmūna, the quality of the long vowel is determined by the affix (prefix or suffix). The reason is obvious: what matters is the conservation of the grammatical information borne by the grammatical element, in other words, the affix, such as: plural, feminine, mi+fʿal or mu+fʿil. In anticipation of what will follow, here are some convincing examples of this phenomenon:

Passive 3 pl. m.: luqi+w > luqū;
ruḍī+w > ruḍū

Imperfective 3 pl. m.: yarmi+w+na > yarmūna

Imperfective 2 s. f.: tadʿu+y+na > tadʿīna

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7 By means of this restriction, the sequences ua and ia remain unchanged and are dealt with by hiatus.
Analogous to:

\[ \text{mi+wzān} > \text{mīzān} \]
\[ \text{mu+yqinun} > \text{mūqinun} \]

We therefore formulate the following generalisation:

AL_{2M} (a lengthening in 2 morphemes): the high vowel and high glide are realised as a long vowel the quality of which is that of the affix element.

Two crucial forms, 2 s. f. and 2 pl. f., have the same phonetic representation: *tarmīna*.

pl. tarmiy+na: the suffix has an initial consonant, the radical is thus rmiy; AL_{1M}: *tarmīna*.

s. tarmi+y+na: the radical ends with a vowel, the vowel of the suffix is not activated: tarmi+y+na and AL_{2M}: *tarmīna*.

We still have to find the solution to the hiatus in the succession of two vowels:

1) when in a group of vowels we have an *a* to the right and an *i* or a *u* to the left;

2) when we have an *a* to the left and an *ā* or an *an* to the right,

the transition between the two occurs through epenthesis of a glide:

- *w* if the vowel to the left is *u*, *w* in F1 active if the apophonic vowel is a *u* (this only concerns verbs such as *daʿā* in F1),

- *y* everywhere else. We call this generalisation HIATUS:

\[ u+a > uwa \]
\[ i+a > iya \]
\[ a+ā > ayā (\text{except F1 active daʿa+ā > awā: daʿawā}) \]
\[ a+an > ayan \]

In the vast majority of cases, the hiatus is resolved through epenthesis of *y*. This is a general tendency: in modern dialects, the epenthesis of *w* has disappeared or tends to disappear.

These contexts are found in the subjunctive, the dual and the emphatic as well as in *laqiya* and *rādiya*:

\[ \text{du. : daʿa+ā daʿawā (F1 active, apophonic vowel u)} \]
\[ \text{rama+ā ramayā} \]
\[ \text{rādiy+ā rādiyā} \]
Subjunctive and emphatic 3 s. m.:

yarmi+a ʾan yarmiya
yadʾu+a ʾan yadʾuwa
tarmi+anna tarmiyanna

All in all, the phonology of Arabic is therefore composed of four generalisations: AL1M, AL2M, SONOSCALE and HIATUS. These generalisations are directly applied to morphological representations and are never applied successively: the phonetic representation is derived from the morphological representation either trivially or by means of a single generalisation. We shall now put this grammar into action to demonstrate its efficiency.

2.3.radiya

Perfective: 2 radicals: CVCi/_vowel and CVCiy/_consonant

Imperfective: the apophonic vowel is predicted: i/a: (faʾila/yafʿalu in the traditional denomination), thus two radicals: rḍa/_V and rḍay/_C.

2.3.1. Perfective

3 s. m. raḍi+a  HIATUS>radiya
3 s. m. raḍi+t The radical does not end with an a, the vowel a is activated, therefore HIATUS : >radiyat
1 s. raḍiy+tu AL1M > raḍitu
3 pl. m. raḍi+wa The radical ends with a vowel, the vowel of the suffix is not activated AL2M > raḍū

2.3.2. Imperfective:

3 s. m. yarḍa+u SONOSCALE : yarḍā

Subjunctive:

3 s. m. yarḍa+ a trivial : yarḍā
Dual: yarḍa+aṇi HIATUS: yarḍayāni etc..

Emphatic: tarḍa+anna HIATUS: tarḍayanna etc...

Crucial forms of the feminine:

s. tarḍa+tyn The radical ends with a vowel, the vowel of the suffix is not activated > tarḍayna
pl. tarḍay+na > tarḍayna
Masculine plural:
pl. m. yarḍa+wna > yarḍawna The radical ends with a vowel, the vowel of the suffix is not activated

2.4. daʿā

Perfective, radicals: CVCa /_suffix with initial vowel
CVCaw/_{_suffix with initial consonant

Imperfective, radicals CCV and CCVw, the apophonic vowel and the glide of the second radical are homorganic: w>u. Therefore: dʿu/_{V and dʿuw/_{C.

2.4.1. Perfective

1 s. daʿaw+tu trivial > daʿawtu
3 s. m. daʿa+a trivial > daʿā
3 du. m. daʿa+ā (HIATUS, F1 u) > daʿawā
3 s. f. daʿa+t. The radical ends with the vowel a, the vowel of the suffix is not activated: daʿat and feminine dual: daʿatā.
3 pl. m. daʿa+w > daʿaw The radical ends with a vowel, the vowel of the suffix is not activated.

2.4.2. Imperfective

2 s. f. tadʿu+iyna > The radical ends with a vowel, the vowel of the suffix is not activated: tadʿu+y+na AL2M > tadʿīna. As predicted, the quality of the long vowel is determined by the affix element: +y.
2 du. m. tadʿu+ānī HIATUS tadʿuwānī
2 pl. m. tadʿu+wna AL2M > tadʿūnā

Reminder: yafta+h+wna. The radical ends with a consonant, the vowel of the suffix is activated > AL1M yaftaḥūna.

2.5. saruwa

There are several faʿula forms such as saruwa. The two radicals of the perfective are saru/_{V and saruw/_{C; those of the imperfective
are: sru/_V and sruw/_C. A few typical forms should suffice for our demonstration.

2.5.1. Perfective

3 s. m. saru+a HIATUS saruwa

2.5.2. Imperfective

3 s. m. yasru+u trivial > yasrū
2 s. f. tasru+inya the vowel is not activated; AL2M > tāsrīna
2 pl. m. tasruw+inya the vowel is not activated; AL2M > tāsrūna
2 pl. f. tasruw+na AL1M > tāsrūna

2.6. The imperative

Two radicals identical to those of the imperfective: CCVG for pl. f. and CCV elswhere.

Masculine: i+rmi trivial: irmi

Feminine: i+rmi+iy the vowel is not activated; AL2M > irmī
          u+d'u+iy the vowel is not activated; AL2M > udʿī
          i+rḍa+iy the vowel is not activated > irḍay

Plural: i+rmi+iw the vowel is not activated; AL2M > irmū
        i+rḍa+iw the vowel is not activated > irḍaw

Dual: i+rḍa+a HIATUS: irḍayā

pl. f. irmiy+na AL1M > irmīna
       udʿuw+na AL1M > udʿūna
       irḍay+na trivial: irḍayna

2.7. Passive forms

The passive poses no problems. In the perfective, the radicals are identical: CuCi/_V and CuCy/_C; and, in the imperfective: CCa/_V and CCay/_C. We should emphasise the fact that in the passive all radicals manifest a y.

Perfective: 3 s. m. du'i+a HIATUS >duʿīya
            3 s. f. du'i+aṭ The radical does not end with a, the vowel of the suffix is activated; HIATUS > duʿīyat
Let’s examine a few more forms:

**Perfective:**
- **1 s.**  
  $du'iy+tu$, rumiy+tu, ruḍiy+tu:  
  $AL_{1M} > du'itu$, rumitu, ruḍitu
- **3 s.f.**  
  $du'i+1t$, rumi+1t, ruḍi+1t
  The radical does not end with a but with i, the vowel of the suffix is activated, thus  
  HIATUS > $du'iyat$, rumiyat, ruḍiyat.

**Imperfective:**
- **3 s. m.**  
  $yud'a+u$  
  SONOSCALE > $yud'ā$
- **3 pl. m.**  
  $yurḍa+wna$  
  The vowel of the suffix is not activated > $yurḍawna$
- **2 s. m.**  
  $tud'a+1yna$  
  The vowel of the suffix is not activated > $tud'ayna$.
- **dual**  
  $tud'a+āni$  
  HIATUS > $tud'ayāni$

In analyses which posit the abstract form $\sqrt{d'w}$, it is curious that this glide does not appear in this passive form: *tud'awāni, since there is nothing in the immediate phonetic context to justify the passage from $w$ to $y$. The supporters of this approach thus have to explain why this occurs. The Arab grammarians say that the base form has been “forgotten” $ašlun mansiyyun$. For us, there is nothing to explain: the solution for the hiatus between tulqa+āni and tud'a+āni is the same: $tulqayāni$ and $tud'ayāni$: a mere phenomenon of transition.

### 3. Conclusion

The grammar can thus be summarised as:
- **One rule:** $ABR \ 0 > v$ in closed syllables
- **Four generalisations:**
  - $AL_{1M}$ (a lengthening in one morpheme): within a same morpheme, the high vowel and the high glide are realised as a long vowel of the same quality as the vowel.
  - $AL_{2M}$ (a lengthening in 2 morphemes): when they are distributed over two morphemes, the vowel and the high glide are realised as a long vowel the quality of which is that of the affix element.
SONOSCALE: in a group of two contiguous vowels, $V_iV_j$ in which $V_i$ is a high vowel (i or u)\(^8\) the i prevails over the u: 

\[ i > u; \]

and in an /a u/ group, the a also prevails over the u, as in yarḍa+u> yarḍā.

HIATUS: 1) When in a group of vowels we have an a to the right and an i or a u to the left;

2) and, when we have an a to the left and an ā or an an to the right, the transition between the two occurs through epenthesis of a glide:

- w if the vowel to the left is u, w in F1 active if the apophonic vowel is a u (this only concerns verbs such as $da‘ā$ in F1),
- y everywhere else.

The comparison of the proposition I have presented above with the grammar of the Arab grammarians and the Orientalists and linguists who draw their inspiration from them reveals a total change in perspective as well as great simplicity and economy: in each case, instead of a long derivation, a single generalisation is applied – a precious quality in the domain of teaching-learning. This marks the end of abstract representations which are inaccessible to native speakers; the end of derivations involving five, six or more rules (BRAME, 1970; KOULOUGHLI, 1979) which no student can assimilate and above all apply; the end of lists of interminable constraints (ROSENTHAL, 2006); the end of abstract representations crammed with empty positions (CHEKAYRI & SCHEER, 2003) which require an admittedly sophisticated theory of governance but which, as we have seen, is superfluous.\(^9\)

I propose a lexical grammar based on a decomposition into radical+suffix or prefix+radical+suffix, without using the “root” as a level of representation. As such, there is nothing shocking in this lexical grammar: it bears a strange resemblance to the grammar proposed by Syriac grammarians (BOHAS, 2008) who have always refused the abstract representations of the Arab grammarians (BOHAS & GUILLAUME, 1984) although the two languages have analogous alternations.

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\(^8\) By means of this restriction, the sequences ua and ia remain unchanged and are dealt with by hiatus.

\(^9\) Why multiply items unnecessarily?
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