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Arabic Pronunciation & Accents

Geo-social Applications of the Natural Phonetics & Tonetics Method

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6.

Arabic vowels

6.1. Neutral Arabic has three short and three long vowels, with some remarkable taxophones, due to the influence of certain consonants and of syllable structure. There are more variations for /a(ɔ)/ and less for /u(ɔ)/, while /i(ɔ)/ is in an intermediate position.

There are two ‘diphthongs’ as well, /ai, au/, which, for practical purposes, are best considered as sequences of /a/ + /i, u/, since their actual realizations are obtained precisely by juxtaposing the various taxophones of the three vocalic elements.

fig 6.1. *Neutral Arabic vowels: monophthongs.*

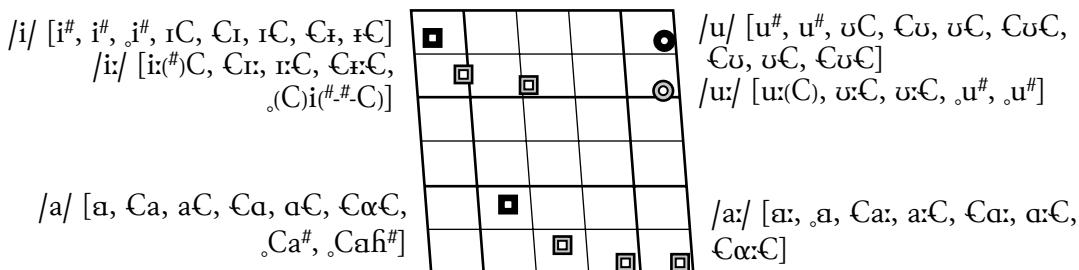


fig 6.2. *Neutral Arabic vowels: diphthongs.*

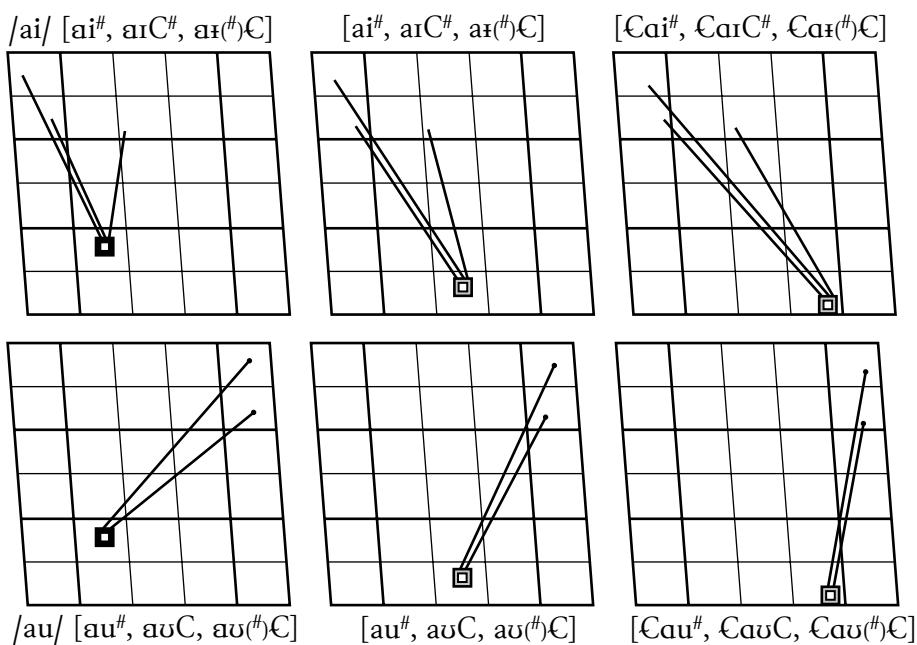


fig 6.3.1. Neutral Arabic spread vowels: orograms (including variants shown in fig 6.6-7).

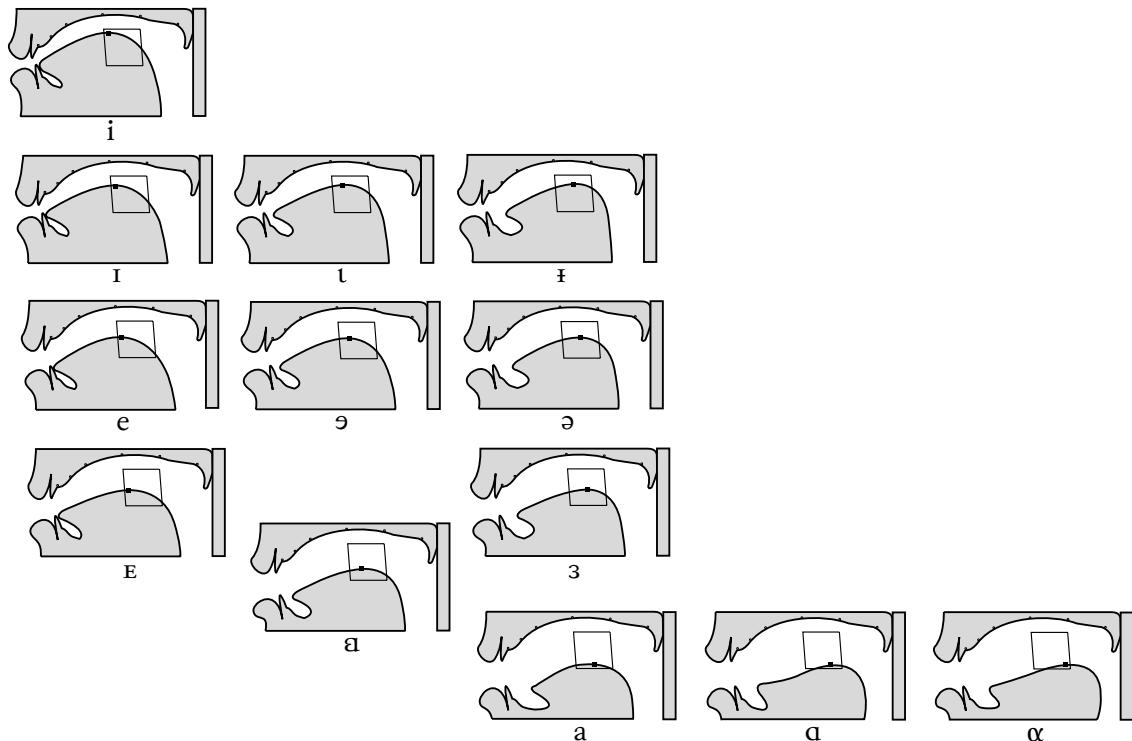
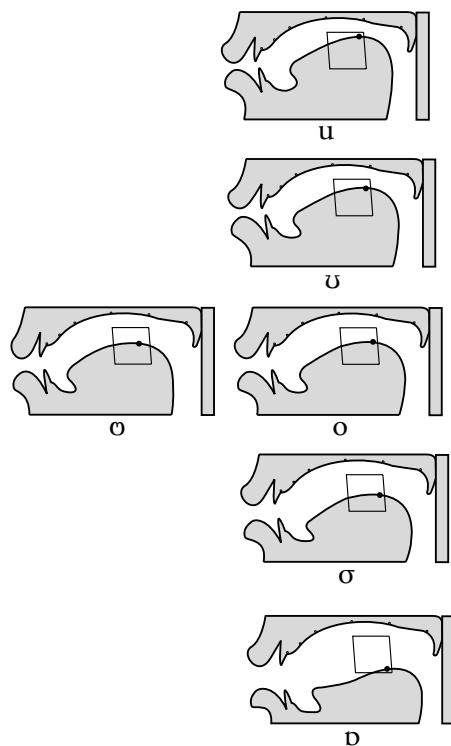


fig 6.3.2. Neutral Arabic rounded vowels: orograms (including variants shown in fig 6.6-8).



The influence of ‘modern dialects’ on the local pronunciation of supranational Arabic is very strong, even if unintentional. So strong, in fact, that it even occurs in teaching recordings, especially in the case of /ai, au/ but also of the basic vowels.

fig 6.4. Neutral Arabic vowels: labiograms (including variants shown in fig 6.6-8).

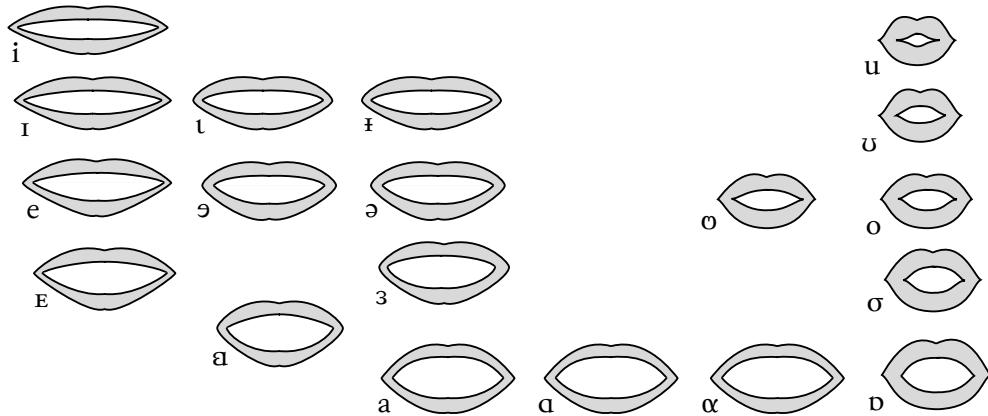
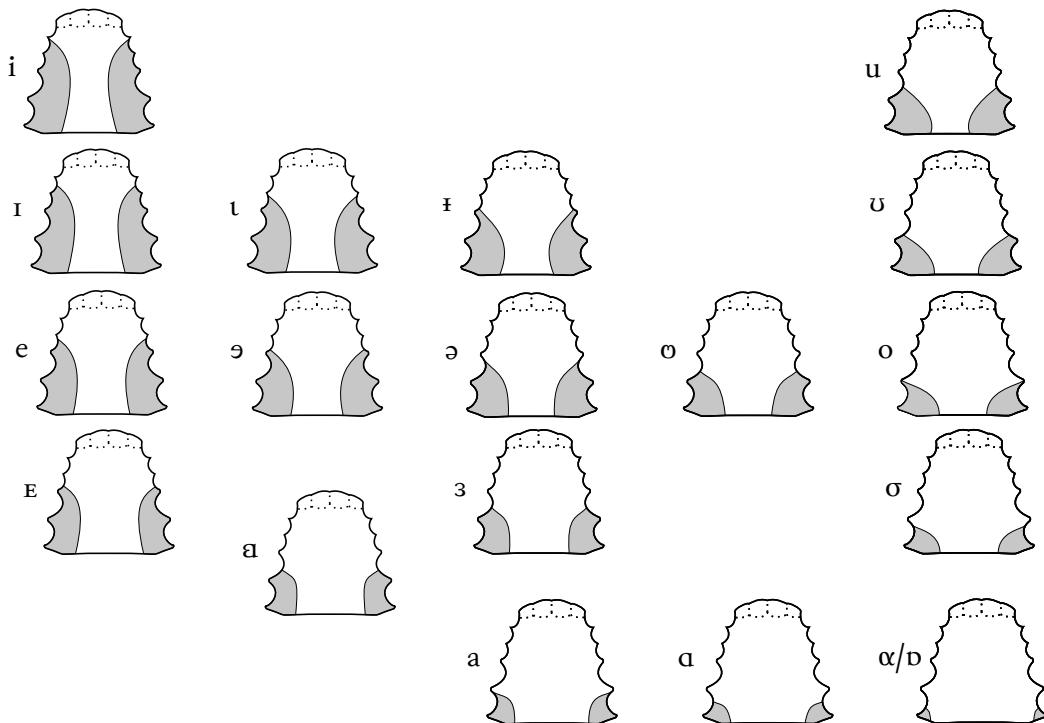


fig 6.5. Neutral Arabic vowels: palatograms (including variants shown in fig 6.6-8).



What we describe here is the actual neutral pronunciation, which does not necessarily correspond to everything one may hear even from educated native speakers.

Nevertheless, the reader who follows exactly the model proposed in this book will certainly achieve a kind of ‘neutral’ pronunciation (not a regional one), even if –for the vowels– this usage is quite close to that of Levantine Arabic (cf § 15.2).

This is true, in particular, for /ai, au/, seen that elsewhere they are generally realized as monophthongs ([e:, o:]) or, at most, as narrow diphthongs, [ɛɪ, ɔʊ].

The different variants of Arabic are not mere ‘accents’ of the same language, but partially different ‘dialects’, which in turn affect the language itself.

Let us consider, for instance, Gulf Arabic and Egyptian Arabic, while Maghreb Arabic is different still (especially Moroccan Arabic). However, here we will most-

ly consider ‘supranational’ (or, somehow, native-like ‘international’) Arabic pronunciation (although a few major differences will be dealt with, too – cf § 6.7, G 12 & G 14-15).

6.2. The unmarked values of /i(:), a(:), u(:)/, the ones that a native speaker would instinctively employ to articulate vocalic segments in isolation, are [i(:), a(:), u(:)] (shown by the black markers in the vocogram of fig 6.1). In addition to them, it is indispensable to properly recognize and reproduce all the taxophones that are listed below.

Another important feature of modern neutral pronunciation is that any /V:/ will be realized as [V] (or [V̄] at the most) in unstressed syllables, unlike classical *Koranic* pronunciation, which dictates instead that vowel length be preserved as scrupulously as possible in every instance.

- | | |
|--------|---|
| /i/ | 1.1 [ɪ] if preceded <i>or</i> followed by /t, ḍ, s, z, q/,
1.2 [ɪ] if preceded <i>or</i> followed by /ḥ, ʕ, k, r/,
1.3 [ɪ] in checked syllables (with different consonants than in 1.1),
1.4 [i] in unchecked syllables (except 1.1-2);
1.5 (in /ai/) as /i/, for 1.1-4; |
| /i:/ | 1.6 [ɪ(:)] between /t, ḍ, s, z, q/ (in (un)checked syllables),
1.7 [ɪ(:)] if preceded <i>or</i> followed by /t, ḍ, s, z, q/ (in (un)checked syllables),
1.8 [i(:)] in all other cases (in (un)checked syllables); |
| /a(:)/ | 2.1 [ɑ(:)] if preceded <i>and</i> followed by /t, ḍ, s, z, q/,
2.2 [ɑ(:)] if preceded <i>or</i> followed by /t, ḍ, s, z, q/ (and [f]),
2.3 [a(:)] if preceded <i>or</i> followed by /ḥ, ʕ, k, r, f/,
2.4 [a(:)] if preceded <i>and</i> followed by other consonants (including [r, h, ḥ]),
2.5 [a] if unstressed <i>and</i> in utterance-final position (except 2.2),
2.6 [a] for /a(:)/, if unstressed and in utterance-internal word-final position, including monosyllables (except 2.1-3),
2.7 [a; ah] /a(ḥ)#+/, for -ah (<i>tā' marbūṭah</i> ['tar̄ maʃbu:tā(ḥ)]) in pausal position (with no influence as in 2.2-5),
2.8 (in /ai, au/) as /a/, for 2.2-4; |
| /u/ | 3.1 [ʊ] if preceded <i>or</i> followed by /t, ḍ, s, z, q, ḥ, ʕ/,
3.2 [ʊ] in checked syllables,
3.3 [u] in unchecked syllables (except 3.1),
3.4 (in /au/) as /u/, for 3.1-3; |
| /u:/ | 3.5 [ʊ(:)] in syllables checked by /t, ḍ, s, z, q, ḥ, ʕ/,
3.6 [u(:)] in all other cases. |

6.3. According to the distributions just seen, fig 6.1 shows the realizations of the Arabic –short and long– vowels, /i(:)/ [i(:), ɪ(:), ɪ(:)], /a(:)/ [ɑ(:), a(:), a(:), ɑ(:)] (and

[D(:)], a conservative *Koranic* variant, cf fig 6.6), /u(:)/ [u(:), u(:)].

Here are some examples, which we present in their pausal form, stripped of case endings or any other terminations: *qif* ['qɪf], *qīqān* [qɪ'qɑ:n], *sīdī* ['sɪdɪ], *sadīq* [sa'dɪq], *bint* [bɪnt], *fīl* [fi:l]; *saqī'* [sa'qɪ:f], *saff* ['saf:'], *tāħa* ['tāħa], *baħda* ['baħda], *rāħin* ['rāħin], *ħāħda* ['ħāħħa], *walad* ['walad], *bāb* ['bā:b]; *sūq* ['sūq], *ħunā* ['ħunā], *sūf* ['sūf], *kuşūm* [ku'su:m], *funduq* ['funduq].

fig 6.2 shows the different realizations of /ai, au/, which result from the combination of [a-, a-, a-] + [-i, -ɪ, -ɪ] or + [-u, -ʊ], according to context. Let us examine a few words, first in pausal form: *bayt* ['baɪt], *ȝayn* ['ȝain], *qayl* ['qail], *fawz* ['fauz], *lawn* ['laʊn].

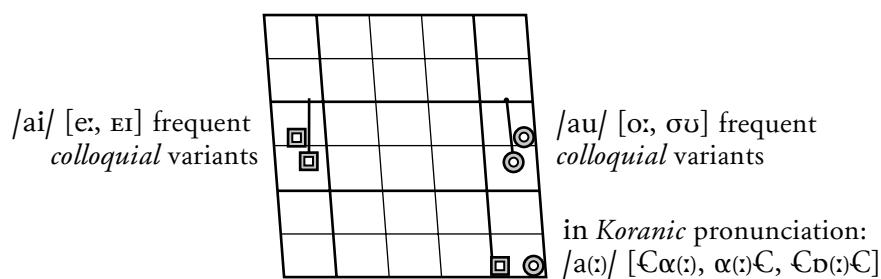
But, with a termination, by virtue of which the (phonetic) syllable containing the diphthong becomes unchecked: *baytun* ['baitun], *‘ayn-ī* ['qaini], *qaylin* ['qailın], *fawzan* ['fauzan], *lawnu-hu* ['launu,hu], *‘awlādu-kunna* [?au,la'du'kunna]. Further examples: *‘ayna* [?aina], *‘awdah* ['qauda; -ah], *muqawwam* [mu'qauwam] *t*[-qawwam].

It is important to note that the above should be taken with a grain of salt, since even neutral diphthongs show a noticeable degree of elasticity, and nothing prevents us from articulating –say– *qayl* as [qail] and *qaylin* as [qailin] (mostly in *mediatic* accents), provided that the *first element* of the diphthong preserves the correct vocalic quality. A similar criterion should be applied to the taxophones of /au/.

6.4. fig 6.6 shows some more peculiar yet frequent realizations of /ai, au/: [e:, εɪ; o:, ɔʊ], which are very widespread outside neutral Arabic. However, one's pronunciation may still be considered neutral, although 'colloquial', even if it uses such variants, provided all other articulations are appropriate.

Therefore, one should not be surprised to hear realizations such as *bayt* [‘beit], *‘ayna* [‘Pena, ‘PEI-], *‘aynī* [‘feni, ‘FEI-], *fawz* [‘fozz, ‘fuz], *lawn* [‘lōn, ‘loun]. As to *qayl*, [qe:l, ‘qe:l] would be possible but rather theoretical, because the very colloquial register associated with [e:, EI; o:, OU] would in turn call for a more colloquial realization of /q/ than neutral [q] is, e.g. [P, g, g], if not its complete loss: [‘ge:l, ‘ge:l; ‘Pe:l, ‘PEI; ‘e:l, ‘EIL].

fig 6.6. Neutral Arabic vowels: colloquial & Koranic variants.



Finally, fig 6.6 also shows the rounded back realization of /a(:)/ between /t, ð, s, z, q/ (and some other cases). As said, this [ɒ:] is more typical of *Koranic* pronunciation: scattered examples of it can be found here and there (and in § 6.3), and

are often associated with solemn assertions, including quotations from holy scriptures.

fig 6.7 shows further vocalic articulations, all of which are in the intermediate area of our vocogram (typically unused in neutral pronunciation, as can be seen in *fig 6.1*). The same happens for the variants of /ai, au/, as well: *maydān* [mai'dā:n, mæ-], *?awlād* [?au'lā:d, ?æ-].

The *white* markers indicate unstressed realizations of /i, a, u/, [ə, ɜ, ɔ], which are considerably centralized.

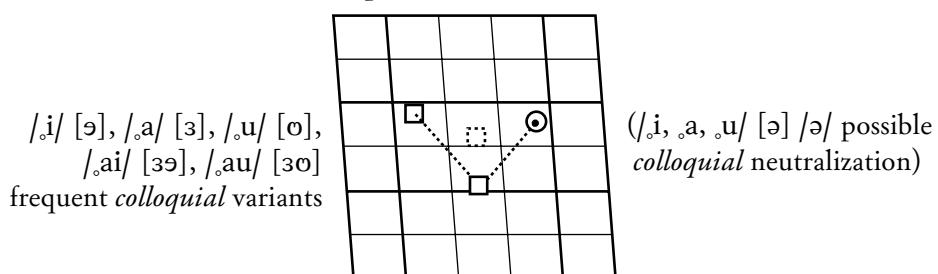
The *broken-line white* marker, in turn, indicates the frequent neutralization of unstressed /i, a, u/, unified into [ə], which is more typical of *quick* and *familiar* speech. Some examples: *siyāz* [si'jā:z, sə-, sə-], *timtāl* [tim'tā:l, təm-, təm-], *salāma* [sa'lā:ma, sə-, sə-], *sahwān* [saħ'wā:n, səħ-, səħ-], *suhūla* [suħu:la, sə-, sə-], *muštaqq* [muħ'taq:, məf-, məf-].

Such variants must have been in use for centuries, considering some well established renditions of Arabic words, such as *Moham(m)ed* in many Western languages and *Mehmet* in Turkish for neutral *Muhammad* [muħammad], or *Moslem* for *Muslim* ['muslim].

It is also reasonable to assume that the same tendency to merge unstressed vowels is one of the reasons behind the progressive erosion of the rich inflectional system of Classical Arabic, which ultimately leads to the disappearance of most morphological endings in modern ‘dialects’.

But for the pronunciation model that we want to promote, it will be advisable to stick to the basics and refrain from excessive... innovations.

fig 6.7. Arabic vowels: unstressed *colloquial* variants.



6.5. Another feature admitted in everyday pronunciation and in mediatic accents, but generally not in *Koranic* declamation, tends to avoid realizations like [a(:)] in whole (even long) words containing /t, ḍ, s, z, q, ḥ, ʕ, k, r, f/: *mahrab* ['maħ-ħab, 'maħ-], *talab* ['tħalab, -lab], *tamdī* ['tamdī, 'tam-], *mansūb* [maħħ'su:b, maħħ-].

This sort of ‘vowel harmony’ somehow applies to other vowels as well, and indeed, it would make the pronunciation of Arabic a lot easier, if fully implemented and predictable. Unfortunately, it is neither. Learners of neutral pronunciation should then try their best to reproduce all vocalic taxophones whenever necessary and appropriate.

Though alien to the scopes of this work, it is worth recalling that, based on

some historical evidence, a higher and fronter realization of /a(:)/, possibly even an independent phoneme, is likely to have belonged to the vocalic inventory of Classical Arabic, or at least to the Meccan variety spoken by the Prophet and early followers.

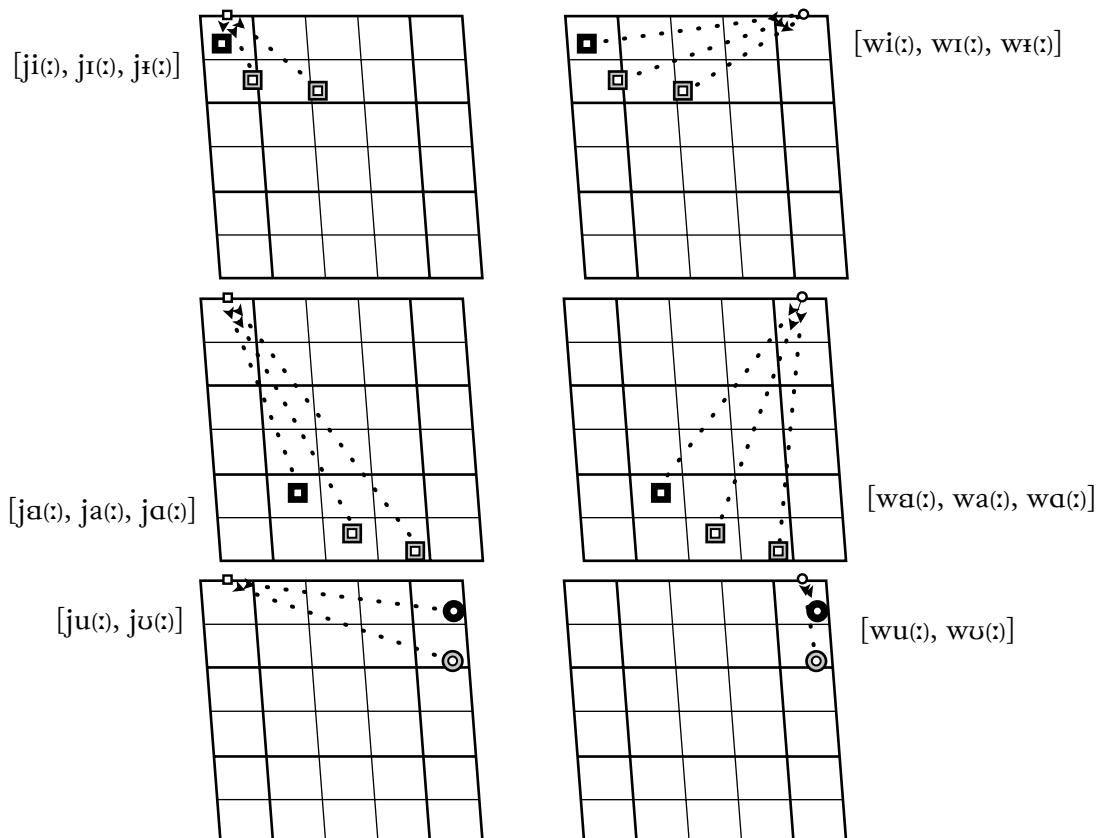
Ancient Arab linguists used the term *?imālah* [?i'ma:la; -ah], ‘slanting, tilting’, to describe the shift of a *alif* to the vocalic quality of [ɛ(:)] (‘light’ *?imālah*) or [e(:)] (‘heavy’ *?imālah*). Both are still present in some modern ‘dialects’ –most notably, urban Lebanese– though not necessarily with the same distribution and mechanisms as in Classical Arabic.

Certain *Koranic* recitation (*tažwīd* [taž'wi:d]) styles still call for *?imālah* in a number of instances, which the reciter has to memorize, since even fully vocalized Arabic orthography has no means to indicate either *?imālah* or its exact opposite, [ɑ(:), ɒ(:)], unless supplementary *tažwīd* diacritics are employed.

6.6. Arguably, not every single realization given in fig 6.1-7 is really necessary for a good neutral pronunciation of Arabic. Nevertheless, if these realizations are rationed and used in a natural way (speaking fluently), a greater ‘spontaneity’, similar to that of native speakers, can be attained, again in the framework of colloquial neutral pronunciation.

A systematic and complete *shortening* of unstressed long vowels belongs to *modern* and *international* pronunciation, as observed before. On the contrary, *Koranic* (and in general, ‘solemn’) pronunciation not only avoids shortening long vow-

fig 6.8. Arabic /jV, wV/ sequences: not ‘diphthongs’.



els, but will often elongate them both for metric purposes and to make certain distinctions more evident.

Our readers are nonetheless advised that whenever homophony might lead to ambiguity, it will be useful to articulate unstressed long vowels at least as half-long, if not long: eg *katabna* [ka'tabna] ‘they (*fem.*) wrote’ vs *katabnā* [ka'tabnā; -na:] ‘we wrote’.

For a useful comparison with the diphthongs given in fig 6.2, let us carefully compare fig 6.8, which shows (central) approximant + vocoid sequences. Unfortunately, too many ‘experts’ still keep on considering them ‘falling diphthongs’, while they certainly are [CV], not [VV].

Some hints about geographic variants

6.7. Among the main variations and deviations from the neutral form (cf § 6.3), in certain areas, we find that /a/ never has the [a:] timbre, in any context (as often happens in Iraq and northern Lebanon).

Furthermore, in an almost general way, in several colloquial variants, the diphthongs /ai, au/ reduce to [e, εɪ; o, ɔʊ] (cf fig 6.6), from the Maghreb to the Persian Gulf, except in the Levant. However, the diphthongs are kept, generally, when they are in absolute final position or followed by /j, w/.

Some examples: *bayt* [baɪt, bεɪt, bɛt], *lawn* [laʊn, lɔʊn, lɔ:n], *ȝayn* [ȝaɪn, ȝεɪn, ȝe:n]; *sayyid* ['saijɪd], ['sajjɪd], *mušawwiq* [muʃauwɪq] [-aww-], *nayy* ['nai, 'naj:, 'naj:], *law* [lau, law, laғ].

Especially in the Maghreb, besides (unstressed) /i, u/, even /a/ may be dropped (with possible, consequent, stress shifts): *?anta* [?anta, ՞ta, ՞ta], *qalam* ['qalam, 'qalm], *lisān* [li'sa:n, l'sa:n], *salām* [sa'lə:m, s'lə:m].

8. Arabic consonants

8.o. The consonantal phonemes and taxophones of neutral Arabic are shown in fig 8.o (including two possible more traditional variants for /z, ʒ/ [z] *t*[ð], [ʒ] *t'*[dʒ], but without some inferable, or less important, taxophones, as [t, d]).

Also non-assimilated consonant sequences, more typical of slower or more careful speech, will be shown in this chapter, although in § 9 their normal patterns will be shown.

fig 8.0. Table of *neutral* Arabic consonants.

Nasals

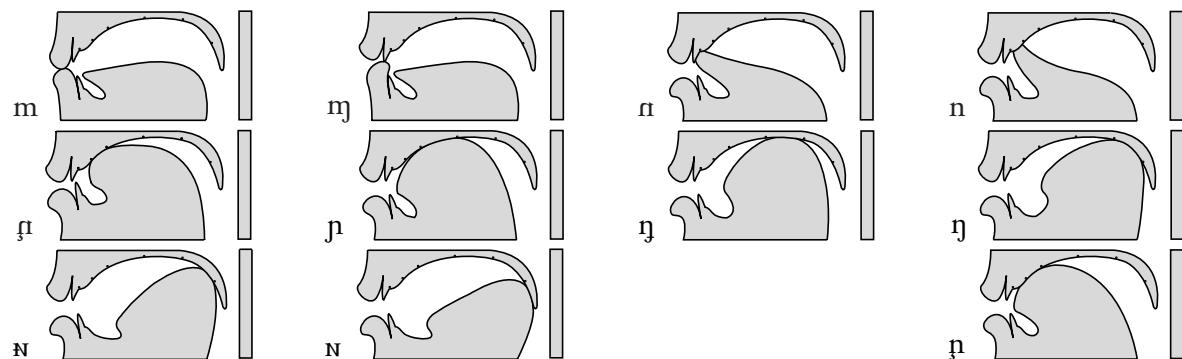
8.1. There are two nasal phonemes, /m, n/ [m, ɱ, ɳ, n, ꝑ, p, ɳ, ɳ, ɳ, n] [n] (which means that /n/ is assimilated to a following consonant, including before /f, l/, while /m/ can only assimilate to a following /f/, becoming [ɱ]) – the prepalatal [ɳ], which is frequent in other languages, is included for comparison, not to be confused with [ŋ]).

A few examples, as usual in pre-pausal form: *mumattal* [mu'maθθal], *tamžid* [tam-ži:d, -dži:d], *šams* [ʃams], *Maryam* ['mař-jam], *Muhammad* [muħammad], *nimnim*

[n̠imn̠im], žanb [ʒamb, ɻ̠-], min bāb [m̠im'b̠ab], ȝanf [ɻ̠amf], bint [b̠int], winš [w̠iʃ̠], min māktab-ī [m̠im'm̠aktabi], min yawm [m̠ij̠'jaum], min Rūmā [m̠iʃ̠fu:ma, -n̠r̠], min Līmā [m̠iʃ̠lima, -n̠l̠-], ḍānk [ðanjk], ȝawwah [ɻ̠an-wa, -af̠], kānq [k̠anq], min qūwah [m̠iʃ̠qu:wa, -af̠], ȝinqidā? [ɻ̠iŋqɪða:ʃ̠].

However, *Koranic pronunciation* tends to avoid assimilating /n/ to a following consonant. So, in a forced and rather unnatural way, we would have: ↑[ɻ̠anb, m̠in'b̠ab, m̠in'm̠aktabi, m̠in'jaum, ɻ̠anf, 'winʃ̠, 'ðānk; ɻ̠an-wa, -af̠; k̠anq; m̠in'qu:wa, -af̠].

fig 8.1. Arabic consonants: *nasals*.



Stops

8.2.1. Arabic has no '/p/' (Proto-Semitic /p/, in fact, became Arabic /f/), but only /b/, which however may be realized as [p] when followed by voiceless consonants: bāb [b̠ab], laban [laban], ḥabs [ḥaps]. On the other hand, neutral Arabic has no '/g/' either, but has the [g, ȝ] taxophones of /k/ before voiced obstruents: ȝakbar [ɻ̠agba:ʃ̠].

However, Arabic has two voiceless stops in phonemic opposition, velar /k/ [k, k̠] and uvular /q/ [q, q̠]. Some examples: kuskus [kuskus], miktaar [mikθax̠], malik [malik], qadīm [qa'dim], ȝaqdām [ɻ̠aq'da:m], sūq ['su:q], ȝAl-Qur'ān [ɻ̠atqur'ā:n] (t[ɻ̠atqur'ā:n]), saqqātah [saq'qax:tah(f)] (t[saq'qax:tah(f), -q̠-]), qitt [qit̠], qimah ['qir-ma, -af̠].

Arguably, /q/ [q, q̠] enjoys great prestige, even among speakers who do not use it, although very frequently it is replaced with other articulations (as will be seen in § 8.7). Note: kalb [kalb] 'dog' and qalb ['qalb] 'heart'.

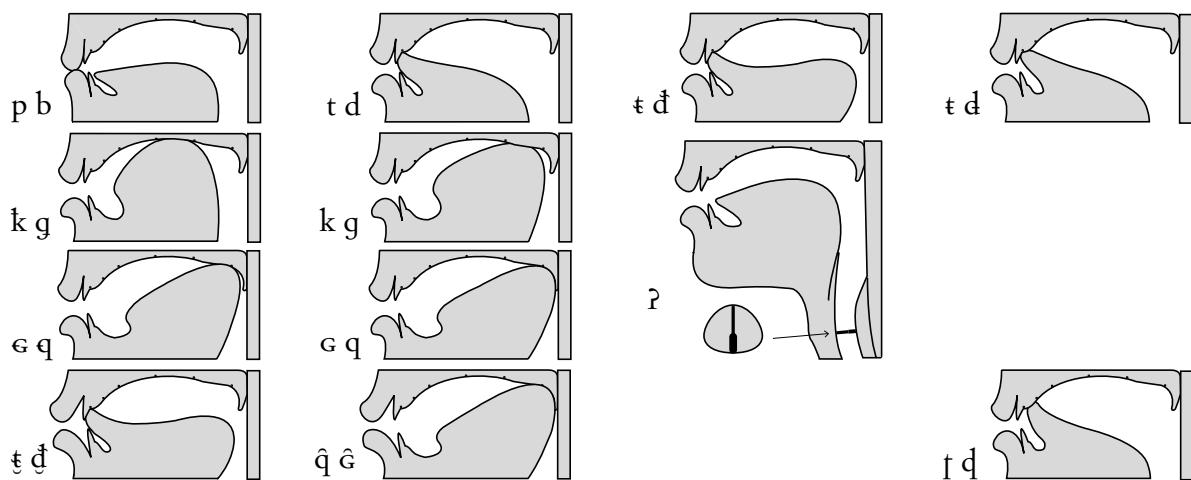
Furthermore, we have the peculiar diphonic dental pairs /t, d/ [t, d] and /t̠, ð/ [t̠, ð̠] (uvularized). In *mediatic* pronunciation, /t/ and /k/ may be slightly 'aspirated', when at the beginning of a stressed syllable (but we will mark it only here): [kh, th] – [h] is weaker than [h], being a laryngeal *semiapproximant*.

Often, /t, d/ are denti-alveolar if final before a pause (but it is not necessary to use [t̠, ð̠], unless one wants to be very precise: tādāwul [ta'da:wul], ȝitā? [ɻ̠i'ta:ʃ̠], ḥadd [ḥad:], baṭātis [ba'tax:ti:s] (t[-t̠ax:ti:s]), ḍart [ða:ʃ̠] (t[ða:ʃ̠; ð̠a:ʃ̠]), dažir [ða:ʒi:f, -dʒi:f].

Although neutral Arabic has no [g], except for assimilation, this contoid occurs in several modern 'dialects' as a variant of either /ʒ/ or /q/ (that is to say, not both

in the same dialect). Therefore, it is natural that these isolated phonemes may currently be brought to normalization. So, they change their articulations, in order to form a more homogeneous and coherent structural system. Even the shift of /ʒ/ to [ʒ] (instead of the more *Koranic* –and ancient– [dʒ]), or to [g], is a part of this trend. Again, in *Koranic* pronunciation, /t, d, q/ can certainly be labialized: [t̪, d̪, q̪] (in fact, this peculiarity, which in several other languages may be felt to be uneducated or vulgar, is, on the contrary, perceived as better and adapt for religious purposes: *dart* [d̪ɔrt̪], *qalb* [q̪ɔlb]).

fig 8.2. Arabic consonants: *stops* (including English [t, d], for comparison).



8.2.2. Our last neutral Arabic stop phoneme is /ʔ/ [ʔ], the so-called ‘glottal stop’, represented in written Arabic by the famous *hamzah* [‘hamza, -ah], an important diacritic – technically, not a ‘letter’ of the Arabic alphabet on its own, but a ‘true letter’ in our transliteration, with its capital shape, as well: ة ؟.

This phoneme may occur in every position, single or geminated, just like any other consonant: *ʔamīn* [Ra'mi:n], *sā'iħ* ['sa:ʔiħ], *māʔ* ['ma:ʔ], *zannaʔ* ['zannaʔ], *raʔs* ['raʔs], *baðʔ* ['baðʔ], *saʔʔāl* [saʔʔa:l].

In the examples above, /ʔ/ has a semantic value, ie it is either part of the triconsonantal root from which the word derives, as is the case with *ʔ-m-n*, *z-n-ʔ*, *r-ʔ-s*, *b-d-ʔ*, and *s-ʔ-l*; or it is etymologically related to the root, as in *sā'iħ* and *māʔ*, whose roots actually are *s-w-ħ* and *m-w-h*. There are also cases in which *ʔ* corresponds to an original *y* in the root and vice versa.

Unsurprisingly, the relatively unpredictable alternation between *ʔ*, *w*, *h*, and *y* is one of the difficulties involved in looking up words in Arabic dictionaries, where entries are not arranged alphabetically, but listed below their basic root.

Besides, Arabic phonotactics dictates that all phonic syllables begin with a consonant, and when there is no consonantal onset, due to etymological or morphological reasons, /ʔ/ is added to somehow ‘protect’ what otherwise would be a bare vowel (or diphthong): *ab* [ʔab], *idānah* [ʔi'da:na, -ah], *umm* [ʔum:].

An interesting case is *ruʔasāʔ* [fuʔa'sa:ʔ], the plural form of *raʔis*: the former /ʔ/ is clearly etymological, the root being *r-ʔ-s*, while the latter is morphological, as it

belongs to the suffix \bar{a}^2 within the ‘broken plural’ pattern $CuCaC\bar{a}$? But at the same time, this final /? \bar{a} / plays an important morpho-phonetic role, for it makes it possible to attach case endings *-u*, *-i*, *-a* without producing the sequences *-āu*, *-āi*, *-āa*, which Arabic phonotactics does not admit as valid diphthongs.

Most typically, we found the ‘prosthetic /? \bar{a} /’ before the article *al-* in post-pausal position, ie at the beginning of an utterance: *?al-maktab* [?al'maktab]; but *?al-baytu wa-l-maktab* [?al'baitu wal'maktab], not **wa-?al-maktab*. (The apheresis of *a*, [Val-] → [Vl-], and of other initial short vowels will be explained below.)

The relative pronouns *?allaði* [?all'aði], *?allatī* [?all'lati] (cf § 9.4.5 for their ‘irregular’ stress pattern), *?allaðīna*, &c, whose first syllable etymologically *is* the definite article, exhibit the same behavior: *maktab-ī*, *?allaðī...* ['maktabi.. ?all'aði-] ‘my office, which...’ vs *?al-maktabu llādī...* [?al'maktabul laði-] ‘the office that...’.

Even the word ‘Allah’ behaves the same, though there is no consensus among scholars, especially Arab academicians, as to whether the first syllable *Al-* corresponds to the definite article (cf Italian *Iddio* [id'diɔ], from *Il Dio*, lit. ‘The [only] God’): *?allāh* [?all'a:f] vs *li-Llāh* [li'l'a:f].

8.2.3. If all phonic syllables must begin with a consonant, on the other hand, Arabic phonotactics does not tolerate more than one consonant in that position, except rare cases of loanwords not yet adapted to Arabic phonology. Initial consonant clusters are resolved in various ways, which nevertheless always involve a short vowel: an *epenthetic* ‘echo vowel’ as in *Tarābulus* [tɑ'rəbulus] ‘Tripoli’; or, more frequently, a *prosthetic* vowel.

When words with [#CC-] (ie with an initial consonant cluster) occur –in connected speech– after a word ending in a vowel, it is not necessary to add the vowel (nor /? \bar{a} /), therefore the two words are linked.

If, instead, the preceding word ends in a consonant, then, the vowel is added, but /? \bar{a} / is not. The reader is referred to grammars, where this phenomenon (indicated by a diacritic called *waslah* ['wasla; -ah]) is generally dealt with quite widely.

We can find this in connection with the article, certain verbal forms, the imperative and a dozen nouns. Among these, the most important are: *?ibn* [?ibn, -bn, -bñ], *?imru?* [?imrū?], *?ism* [?ism, -sm, -ṣm], *?itnāni* [?iθ'nā:ni]. Also note: *ra'aytu bn-ī* [fa?ra'itub 'ni:], *bābu l-bayt* [bā:bul 'bait].

8.2.4. The *a* of the definite article *al-* in fact is a prosthetic vowel, which in post-pausal position will –in turn– call for the prosthetic /? \bar{a} / that we have examined above. (Be noted that in modern ‘dialects’ and the corresponding regional accents of ‘Standard Arabic’, the article normally begins with [E, i] or some sort of [ə], not necessarily ‘protected’ by [?].)

The fact remains that whichever vowel is prefixed, the only portion of the definite article that matters is *-l*, or its assimilated variants when followed by ‘solar letters’.

If the preceding word already ends in a vowel –a thematic long vowel or a case ending, for example– the consonant cluster will be directly connected to it *in fluid speech*, and no supplementary prosthetic vowel will be needed anymore. That ex-

plains *wa-l-maktab* and similar cases: *fī l-maktabi l-žadīdi llādī fī-hi...* [fī'l'makta,bi:l ja'dī:dīllaðī:fīhi:] 'in the new office where...' (lit. 'in the office the new which in it...').

Many other words feature a prosthetic vowel that can be elided, one of the best known being *?ism* [?īsm, 'īsm] 'name': while 'the name' regularly is *?al-?ism* [?al-?īsm] (two prosthetic vowels with two prosthetic /?/!), 'what is your name?' is *mā smu-ka?* [mā:smu:kā:], instead. Hence the famous *incipit*: *bi-smi Llāhi r-raḥmāni r-raḥīm* [bismillahīr-rahmānīr-rahīm] 'in the name of Allah the clement (and) the merciful'.

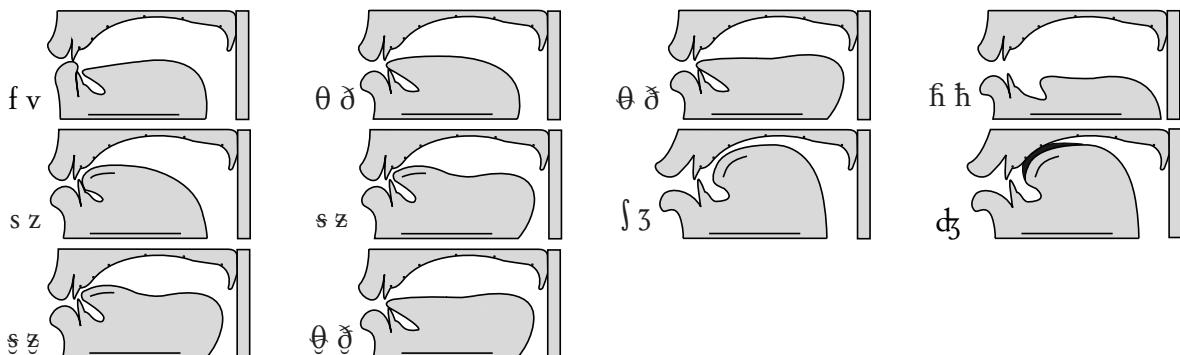
The tendency to rely on the preceding word is so widespread that certain words and morphological markers *genuinely ending in a consonant* will acquire a supplementary vowel –in this case, a *paragogic* vowel– that will make the liaison possible even if the prosthetic vowel could theoretically serve for that purpose. For example, *min maktab-ī* [mīm'maktabī] 'from my office', but *mina l-maktab* [mīnā'l'maktab] 'from the office'; and *žalasat bint-ī* [žalasat 'binti, 'dʒ-] 'my daughter sat down', but *žalasati l-bint* 'the girl/daughter sat down' [žalasatīl 'bint, dʒ-], which, by the way, implies a stress re-adjustment.

8.2.5. It is important to note that the *?alif* signalling the presence of a prosthetic /?V/ remains written –in the Arabic script– even if neither is pronounced, in order to keep the word recognizable, but in that case, the *?alif* should carry a diacritic called *waṣlah* –from *waṣl* 'connection, liaison'– though this in practice is rarely done. Our Romanization, instead, only spells out what is actually uttered.

Constrictives (or 'fricatives')

8.3. Among the phonemes belonging to this articulation manner, we find /f/ [f]: *farīd* [fa'rīd], *ifsād* [if'sā:d]. The corresponding voiced phone [v] only occurs as an assimilatory taxophone of /f/, as in *lafz* [lavz, -vð], but not as an independent phoneme. In loanwords adapted to the Arabic phonic inventory, foreign /v/ is generally changed to /f/: *Fiktūr* [fik'tu:r] 'Victor', *tilfīzyūn* [tīlfīz'jūn] 'television', *fīdiyū* [fī:diyu] 'video', *Fiyatnām* [fiat'nā:m] 'Vietnam', *F(a)lādīmīr* [f(a)lādī'mī:r] 'Vladimir'; or to /w/, as in *Bahlawī* [bah'lawī] 'Pahlevi', a Persian loanword.

fig 8.3. Arabic consonants: *constrictives* (including the possible variants for /z, ʒ/ [ʒ, t̪dʒ; z, t̪ð]).



In addition, there are two diphonic pairs, which pose no problems, /θ, ð; s, z/ [θ, ð; s, z]: *ṭalāt* [θa'lā:t], *maðir* ['maðɪf], *ḍamm* ['ḍam:], *dars* ['daṛ:s], *zār* ['zaṛ:], *kanz* ['kaṇz].

However, there are two more diphonic pairs, with variations that may pose some phonemic dilemmas. They are /s, z/ [s] [z] (*t[ð]*) and /ʃ, ʒ/ [ʃ] [ʒ] (*t[dʒ]*).

We prefer [z, ʒ] for their voiced members, as they are more modern and more integrated in the phonemic system than their more Koranic variants [ð, dʒ], which are considered more prestigious (even by those who do not use them). But, since they have a different place or manner of articulation, they would complicate the phonemic system – not slightly, indeed.

However, they can be used – especially in a kind of pronunciation which aims more at a *traditional* than at an *international* accent: *ṣurṣur*, *-ūr* ['ṣuṣṣuṣ, suṣ'suṣ], *rakīṣ* [ra'kī:s], and *maḥzūz* [maḥ'zu:z, *t.ḍu:ð*], *ẓāmi?* ['ẓa:mi?], *t̄ḍ-*].

Also: *ʔishād* [ʔiʃ'hā:d], *ʔašyā?* [ʔaʃ'ja:ʔ], *mušawwaš* [muʃ'awwāʃ, -auwāʃ], *ʔašadd* [ʔaʃ'ad:], *raššāš* [raʃ'ʃa:ʃ], *ʔaš-šams* [Raʃ'ʃams], *žamil* [ʒa'mi:l, dʒa-], *ʔažma?* [Ražma?], *Radż-*, *tāž* ['ta:z, -dʒ].

In the *pharyngeal* place of articulation, we find the voiceless constrictive /ħ/ [ħ] (currently, the ‘corresponding’ voiced sound, the famous *ayin*, is considered to be constrictive, as well, but in neutral pronunciation, it is clearly an approximant, /ʕ/ [ʕ], as we will see below, § 8.4.2).

Examples: *ħubbiyy* [ħub'bij:], *maħtūm* [maħ'tu:m], *muħaddir* [muħadħħif], *fa-riħ* [faħiħ], *fahħāš* [faħħa:ʃ].

Arabic also has a diphonic pair of *uvular constrictive trills*, [χ, ρ] (as will be seen). Phonemically they might be represented with the official symbols /χ, ρ/, but it will be more appropriate and convenient to use the same symbols (for the two levels): /χ, ρ/ [χ, ρ].

Approximants

8.4.1. Let us first consider the least peculiar ones (although there are rather free occurrences). Thus: /j, w/ [j, w], even realized as [i, u], for /Cj#, Cw#/ (and, possibly, for /#jC, #wC/, in *colloquial* variants, as no doubt in the different dialects) and /VjjV, VwwV/ [ij, tjj; uw, tww], but /ijj#, uww#/ [ij:, uw:].

Some examples: *yāwir* ['ja:wɪf], *wasiyyah* [wa'siyya, -af; -i:j-], *wuṣūl* [wu'su:l], *sayyid* ['sajjid, 'saijíd], *nawwām* [naw'wā:m, nau'w-], *nayy* ['naj:, 'naj:, 'naj:, 'naj:], *manhiyy* [man'hij:, -hij:, -hij:, ij:, -hij:, -hij:, -hrii], *ʔabw* [Rabw, -bw, -bħ, -bu] (cf *ʔabu* [Raibu] /Raibu:/). The *Koranic* pronunciation prefers [-jj-, -ww-], as in the cases seen above.

A note about the very common ending *-iyyah*: we shall present [-iyya, -af] as typical in our transcriptions, but again, [-i:] is fine as well, and even well-educated speakers might go as far as [-i(ɔ)a] in fast, colloquial or mediatic pronunciation. Something like [-i(ɔ)af] would be theoretically possible, too, but quite inconsistent with the un-colloquial, conservative [-af].

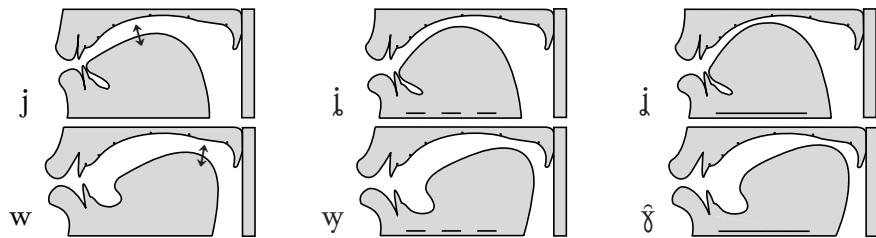
Let us also consider these further examples, which show us the differences between *modern* pronunciation and *traditional* Koranic pronunciation.

In principle, they coincide even with the most important cases where, even in *colloquial* accents and dialects, /ai, au/ do not change into monophthongs ([ɛ:, ɔ:]).

This happens when they are in absolute final position, and when in front of /j, w/ or after /i:, u:/, respectively, or when final, after a consonant.

The following examples show this: *kay* [kai] *t*[kai, kaj, kaj] (cf *kayy* [kaij] *t*[kaj:, kaj:, kaj:]), *layyan* [laijan] *t*[lajjan, lajjan, lajjan], *'umy* [‘umi] *t*[‘umj:, ‘umj:, ‘umj:], *law* [lau] *t*[law:, law:, laŷ:], *dawwar* [dauwas] *t*[dauw-, daww-], *'adūwah* [a'du:wa, -af] *t*[-uw-, -uŷ-], *sahw* ['sahu] *t*['sahw:, 'sahw:, 'sahŷ:], *'afw* [‘afu] *t*[‘afw, ‘afw, ‘afŷ, ‘afu]. Let us also consider: *'as̥arw* [Paf'sarw, -arŷ, -afu].

fig 8.4.1. Arabic consonants: central *approximants* (& some possible stronger variants: semi-constrictive and constrictive) /j, w/ [j, ï, j; w, w, Ÿ].



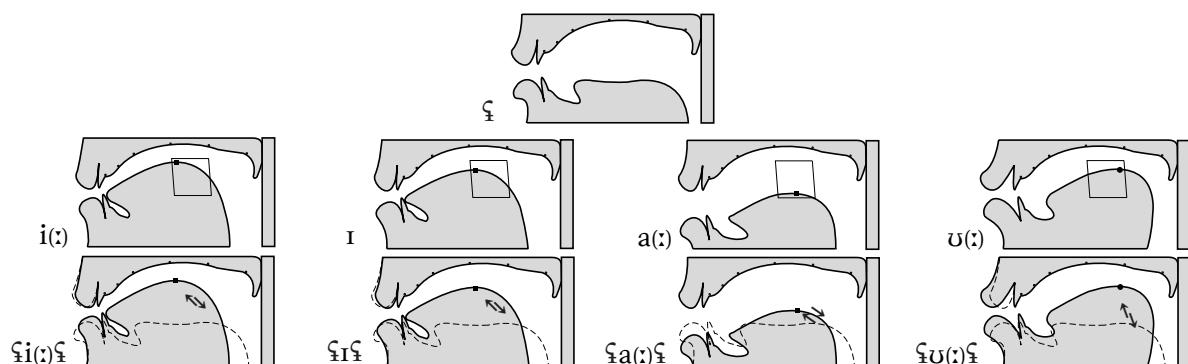
8.4.2. As we said above (§ 8.3), the Arabic phoneme /ʕ/ [ʕ] is an approximant (and generally, in *mediatic* pronunciation, it is laryngealized as well, [χ], which is fairly easy to detect by its lower intrinsic tonality and creaky voice).

But plain [ʕ] is sufficient for a good (and neutral) pronunciation, provided it does not become a simple vowel like [ʌ, ʌ], although short, non-syllabic, [ʌ, ʌ] might be acceptable (corresponding to creaky-voiced full vocoids [ʌ, ʌ] in mediatic accents and 'dialects').

Examples: *'ayn* [qain], *'ala* [qala], *ma'i* ['maq'i], *ma'a* ['maqa], *ba'da* ['baqda], *bi'tu* ['bitu], *na'nas'*, *-na'* ['naqnaq, naqnaq], *fa'qaliyyah* [faqqalijja; -af], *sal'* ['salq], *ma'* ['maq], *rub'* ['rubq].

As a useful device for reflection and comparison, fig 8.4.2 shows the orograms

fig 8.4.2. Arabic consonants: the voiced pharyngeal approximant [ʕ] (not a constrictive!) and its interplay in contact with different vocoids.



of [ʃ] and the vocoids it can be in contact with. In these sequences, it is important not to think that some full vocoidal phones can somehow compensate for the occurrence of a real [ʃ] (as seen above).

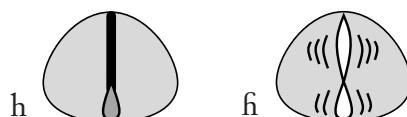
It is occasionally possible to hear some peculiar *regional* –non-neutral– variants, as a laryngealized stop, [ʃ], or else a pharyngealized laryngeal contoid, [χ], eg: ['naʃ-naʃ, naʃ'na:ʃ, 'naχ-naχ, naχ'na:χ].

8.4.3. Our last Arabic approximant phoneme is a true laryngeal phone, /ħ/ [ħ, h], and has a very free occurrence (cf fig 8.4.3). The lenis voiced [ħ] is the variant that we shall present as most typical in our transcriptions, for both simplicity and consistency; furthermore, [ħ] is a better choice for non-native learners to keep /ħ/ distinct from /h/. Our readers, however, must be aware that /ħ/ may switch to the lenis voiceless [h] when near a pause or a voiceless consonant, or when geminate.

Examples: *?ittižāh* [?itti'ža:h, -h; -dʒ-], *muhtar* ['muhtaaʃ, -h-], *hādīhi* ['ha:ðihi, h-], *mabbūl* [maħħ'bū:l], *?inhizām* [?inħiż'a:m], *hafnāf* [ħaf'naf, h-], *hiya* ['ħija, h-], *karħ* ['kaħħ, -h], *bih* ['biħ, -h], *qahwah* ['qah-wa], *wahħāż* [waħħa:z, -ħħ-; -dʒ].

As many examples have shown so far, our Romanization represents *tā' marbū-tah* simply as *h*, since the cases in which there might be confusion with ħ are negligible. So we simply write *?al-madīnah* [?alma'dina, -aħ], if the word is to be pronounced as such; but non-pre-pausal forms would restore the etymological *-t-*: *?al-madīnatū* [?alma'di:natū], *madīnat-i* [ma'di:nati], *madīnatu-hu* [madi'natuħu], and so on.

fig 8.4.3. Arabic consonants: the laryngeal voiced approximant /ħ/ [ħ] (not a constrictive!) and its voiceless taxophone [h].



8.4.4. Besides, before diacritical dots were added to the basic ‘skeleton’ of early Arabic orthography (*rasm*), there was no visible difference between a ‘real’, etymological *ħā'* and a *ħā'* used as the pre-pausal variant of the (mostly feminine) marker *-t-*, so a sequence like *m-k-t-b-h* would legitimately stand for *maktabu-hu* [maħħ'tabuħu] ‘his office’ and *maktabah* ['maktaħba, -aħ] ‘a library’ alike (to mention only one of the translations possible for each word).

Context and good command of the grammar will help to sort out most doubts. Plus, Latin-alphabet transliterations will usually spell out all vowels, another potent means of disambiguation, as the couplet *maktabu-hu* : *maktabah* clearly demonstrates.

At the end of the day, our Romanization simply reflects how words are to be articulated in a certain context, so we shall spell *?al-madīnah* if pronounced [?alma'di:nah, -aħ] in isolation (post-pausal *?al-* and pre-pausal *-ah*), but *?al-madīnatū* [?alma'di:natū] if one wants to articulate the entire word, which may well sound too affected but certainly is not at all wrong.

8.4.5. If a more precise transliteration for *tā' marbūtah* were really requested, something like a hyphenated -*h* (eg *'al-madīna-h*) would do fine without having to resort to yet another special glyph.

Be noted that -*ah* is pronounced [a, aħ] primarily, but [a(h), a(h)] if preceded by any consonant which is capable of modifying timbres. It is to be noted that a realization with [h] represents a very careful, Koranic pronunciation, while the normal realization of -*ah*[#] is [a]: *hazzah* 'movement' [ħazza, -aħ] but: *hazza* '(he) shook' is only [ħazza].

Thus, in sentences, any -*ah* (*tā' marbūtah*), not followed by a pause, is [a]: *muškilah mīkānīkiyyah fī sayyārat-ī* ['muškiла mīkanīkiyya fisaj'ja:fati]. When actually followed by a pause, it is [a]: *muškilah* ['muškiла].

Finally, as a useful device for reflection and comparison, fig 8.4.2 shows the orograms of [ʃ] and the vocoids it can be in contact with. In these sequences, it is important not to think that some vocoidal phones can somehow compensate for the non-occurrence of a real [ʃ].

Trills

8.5.1. Arabic *r* is typically realized as an apical voiced *uvularized* trill, [ʃ], in stressed syllables, and generally as a tap, [ɾ], in unstressed syllables (cf fig 8.5). In *mediatic* pronunciation, it can also be more simply *velarized*: [χ, ϕ], on the other hand, together with further more 'emphatic' coarticulations, such as true (pre)pharyngealization, [ʃ, ʃ; ϕ, ϕ], more suitable in *Koranic* recitation. Accordingly, we have chosen to phonemicize this Arabic rhotic as '/ʃ/' or '/r/'.

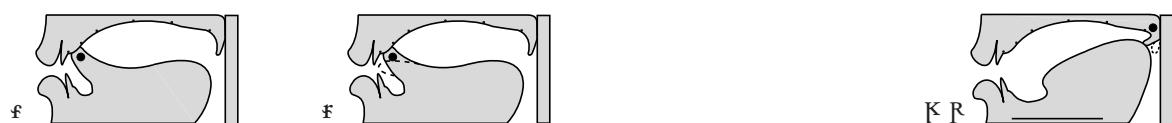
However, it is important to stress that /ʃ/ does *not* belong to the 'emphatic' group, and in fact, ancient Arab grammarians and elocution masters would clearly advise against articulating *rā'* with too much *tafkīm* 'heaviness, thickness', the traditional term for '(consonantal) emphasis'.

On the contrary, it is quite common that any uvular/velar component disappears when /ʃ/ comes in contact with [i(:), ɪ] and no timbre-changing consonant is present: *rīm* ['ri:m], *bīr* ['bīr], but *rīq* ['ri:q], *qīr* ['qi:r]. It is possible to hear the alveolar approximant [z], mainly for final *r*, but this pronunciation is more *mediatic* and not recommendable.

8.5.2. For simplicity and consistency, we shall stick to [ʃ, ʃ] everywhere: *ribq* ['ri:pq], *marbū'* [maʃbu:ʃ], *mariħ* ['maʃriħ], *mirriħ* [miʃriħ], *mirāħ* [miʃraħ], *fur-fur*, -ūr [fuʃfuʃ, fuʃfuʃ].

As seen, the vowel quality of /a(:)/ in contact with /ʃ/ cannot be any fronter than

fig 8.5. Arabic consonants: *trills*.



[a(ɔ)]. That is why many Arabic speakers have little trouble distinguishing the typical American realizations of /æ, e/, [æ, ʌ], in a couplet like *Sam* : *sum*, which they may easily be re-interpreted as ‘*sam*’ [ʃam] and ‘*sam*’ [ʃam]. More problematic would be the distinction between *ram* and *rum*, which would be likely merged into [ʃam], since neutral Arabic phonotactics would not allow [ʃam] for *ram*.

8.5.3. As already said, Arabic has a diphonic pair of uvular *constrictive trills*, /χ, ρ/ [χ, ρ] (cf fig 8.5): *bakšiš* [baχʃiʃ], *kawk* [kaʊχ], *fakkārī* [faχkaxi], *gadan* ['Ra-dan], *sagir* [sa'χix], *bālig* ['ba:lɪχ], *mašgūl* [maʒ'χuʃ] ^{m[ʃ'R-]}, *tawaggul* [ta'waχχuʃ].

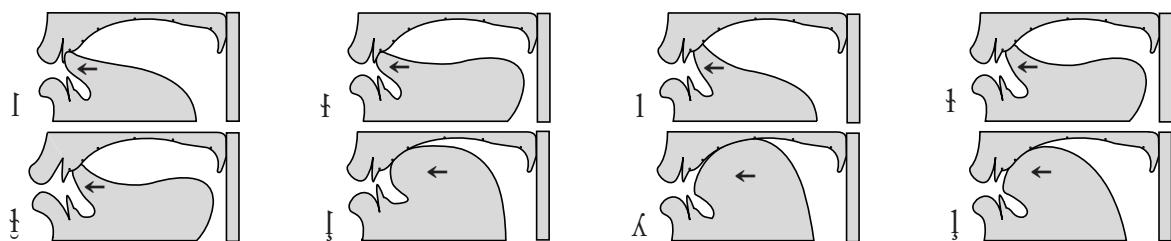
Laterals

8.6. There is one lateral phoneme in Arabic, /l/ [l] and [l̩, l̪, l̫] (the last taxophone occurs in contact with /t̩, d̩, s̩, z̩, q̩/; it also occurs as a phonostyleme (ie a kind of stylistic phoneme), too, in the word *?allāh* [Paʃʃa:f] ‘Allah’ (with /-h/ being frequently dropped), even when used in connected speech and compound words: *?in šā'a Llāh* [Piʃʃa: ?aʃʃa:f] ‘if God will’, *?āyatū Llāh* [?a:ja:tūʃ ʃa:f, ?a:ja-tuʃʃa:f] (and frequently [?a:ja:tūʃʃa:f] as a compound word) ‘sign of God, ayatollah’, *?Abdullāh* [ʃabduʃʃa:f] ‘Abdullah, Abdallah’.

That is not the case with -i *Llāh* /-il'lā:h/ sequences: *bi-smi Llāh* [bismillla:f] ‘in the name of God’, *?al-ḥamdu li-Llāh* [?alḥamdu lillla:f] ‘praise to God’.

For coarticulation, [l̩] is followed by [ʃ, ʒ/dʒ], [l̪], by [j], [l̫] by /t, d; s, z; θ, ð/; *mutala'li?* [muṭala?li?], *talbīs* [tal'bīs], *layl* [laɪl], *talž* ['θaʃʃʒ, -dʒ], *malyān* [maʃʃjan], *zallāqah* [zaʃʃla:qa(h)], *talqīh* [taʃʃqīh]. For the typical complete assimilation of /l/ in the article *?al*, cf § 9.1.1.

fig 8.6. Arabic consonants: *laterals* (and [l] for comparison).



Some hints about geographic variants

8.7. Very often, /θ, ð/ are pronounced like /t, d/, mainly in big cities in North Africa (where /s, z/ are frequently semigrooved, [s̩, z̩], cf fig 8.7), or like /s, z/ as well, particularly in the Middle East. In each one of these cases, a phonemic distinction is lost.

In Iraq, /z/ is [ð], as in traditional and *Koranic* pronunciations; elsewhere it is

often realized as [z], as in Egypt and Syria, but it may even be confused with /t/, /d/, above all in the Maghreb.

The grapheme *žīm*, /ʒ/ [ʒ], has very many geographical, social, and religious, variants. The normal [ʒ] prevails in the Middle East and in North Africa, while [dʒ] (typical of *Koranic* reading) is used in Jordan, Saudi Arabia (typical of the Bedouins) and Iraq.

But in some areas, as in Egypt (Cairo), Sudan and Oman, we find [g, ɣ]; elsewhere, even [q], as in Luxor (southern Egypt), and [j], are used.

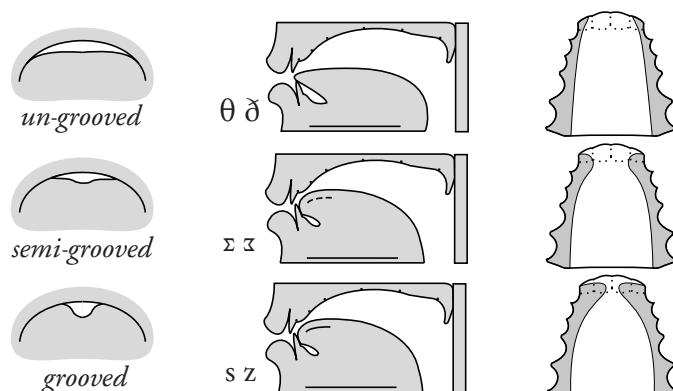
By the way, there are good reasons to believe that the original articulation of *žīm* actually laid somewhere in between [g] and [j], considering the scattered but unequivocal occurrences of (Proto)-Semitic loans in other languages, most notably *žamal* ‘camel’, cf Hebrew *gamal*, Greek καμηλός, Latin *camēlum*.

Therefore, a word like *žāb* /'ʒa:b/ will be ['ʒa:b] in the Levant (Lebanon, Palestine, and Syria) and in Africa (except Egypt and Sudan, as we have just said). But it will be ['dʒa:b] in the Arabian Peninsula, the Persian Gulf, Jordan, Iraq, and among the rural and the nomadic peoples in Morocco.

As pointed out before, /q/ [q] is often realized as [χ], above all in Cairo and other big cities; but it becomes [f; k, ɿ] as well (or even [g, ɣ], as in Libya), particularly in central-southern Egypt, in rural areas of Morocco, and among Saudi-Arabia Bedouins (who often, typically, change /k/ into [tʃ], in their dialects). For instance, *qalb* /'qalb/ may be: ['qalb; 'χalb, 'falb, 'kalb, 'galb].

In the Levant, /#r/ is generally quite weak, therefore we could transcribe it as [?] (instead of [r]). In the Maghreb, /r/ may not even be present at all.

fig 8.7. Comparison between grooved, semigrooved and ungrooved (or slit) dental consonants.



9. Arabic structures

Taxophonics

9.0. In this chapter, we will deal with assimilation, quantity, and some typical reductions of colloquial speech, still within neutral pronunciation (although with some geographical variants).

Assimilation of the definite article

9.1.1. The consonantal coda of the definite article (*?a*)*l*- /(*?a*)*l*[#]*C*/ undergoes full assimilation, [*?a**C*[#]*C*], when followed by any of the so-called ‘solar consonants’, *?al-ħurūfu š-šamsiyah* [?*alħuʃufuʃ ſam'sijja; -af*]: /t, d; t̄, d̄; θ, s, z, ʃ, ʒ; s̄, z̄; n, f, l/ (we have to include /ʒ/, in *modern* pronunciation – see below). Arguably, /#l/ does not trigger any real assimilation, being just a mere taxophonic juxtaposition.

The term *šamsiyah* ‘solar’, although frequently passed for something philosophical or poetic, is simply a practical (but highly disputable) classification expedient, since the Arabic word for ‘sun’ triggers assimilation: *?aš-šams* [?*aʃʃams*]. However, its antonym, ‘moon’, does not: *?al-qamar* [?*al'qamaʃ*]; and that is why all other consonants are traditionally called ‘lunar letters’ (*?al-ħurūfu l-qamariyyah* [?*alħuʃufuʃ qamaʃrijja; -af*]).

The assimilation is mandatory and knows no exception. The official orthography always spells out the *lām* of the article even if assimilation occurs. However, we have decided not to do so in our transliterations and transcriptions, according to the general principle of phonemic realism that our Romanization scheme intends to follow.

Examples: *?at-tāzir*, *?ad-dars*, *?at-ṭālib*, *?ad-dayf*, *?at-tamar*, *?ad-đahab*, *?as-sūq*, *?az-zawż*, *?aš-šabāb*, *?až-žamāl* (see below), *?aš-šabūn*, *?az-zuhr*, *?an-nūr*, *?ar-ražul* [?*at'tar-ʒɪʃ*, *?ad'daʃs*, *?at'ta:lib*, *?að'ðaif*, *?aθ'θamaʃ*, *?aððaħab*, *?as'suq*, *?az'zauʒ*, *?aʃʃa-ba:b*, *?aʒʒa'ma:l*, *?assa'bun*, *?az'zuħf*, *?an'nuxʃ*, *?af'fažul*].

9.1.2. Conservative speakers and scholars will consider it improper to apply this assimilation mechanism to *žim* /ʒ/, based on particular considerations that might certainly be historically sound, but do not take into account the phonemic

situation of the language *as it is spoken today*.

In fact, the assimilation of the article became a basic feature of Arabic phonology in very remote times, when the pronunciation of *zīm* was rather closer to [g] (as in today's typical Egyptian pronunciation), or [gj] (as a southern Egyptian variant), than to [dʒ, ʒ].

Consequently, just like modern /-lk-, -lq-/ , the ancestral /-lg-/ remained unasimilated. That explains the inconsistent behavior of speakers with such minimal pairs as *ʔaš-šamāl* vs *ʔaž-žamāl*, that many realize as [ɻaʃʃa'ma:l], the sole supposedly 'correct' form, by virtue of which the so widespread and legitimate realization [ɻaʒʒa'ma:l] should be... rejected.

9.1.3. However, [ɻaʒʒa'ma:l] is exactly what a large number of educated and proficient speakers of Modern Standard Arabic perceive as the most natural articulation, the one that suits best their instinctive propensity for an internally consistent language.

In a logical –and phonological– way, serious publications (free from traditional 'grammatical' bias in a strictly phonic matter) certainly give [-ʒʒ-] as perfectly legitimate, more than [-dʒdʒ-] or mediatric [-gg-] (thus, with the not recommendable addition of ^t[ɻadʒdʒa'ma:l], and ^m[ɻagga'ma:l]).

In fact, structurally, /ʒ/ perfectly corresponds to /ʃ/. And it seems rather odd having to defend its rightful nature (in spite of traditional outdated beliefs), because this mechanism is so deeply rooted in the instinctive linguistic feeling of native speakers.

This certainly consolidates the correctness of our choice to posit /ʒ/ rather than /dʒ/ as the more convenient structural phoneme, forming a diphonic pair with /ʃ/. By the same token, we have preferred a more realistic Romanization *ʔaž-ž...* instead of *ʔal-ž...*

9.1.4. Here are some examples with their full transcriptions (not to forget that this substantially is a phonetics book):

ʔaš-šams [ɻaʃʃa'mams], *ʔar-raqs* [ɻaʃʃa'qs] ^t[-ʃʃa'qs], *ʔat-tutun* [ɻat'tutun], *ʔaz-zalal* [ɻaz'zalal], *ʔad-dīq* [ɻad'deq], *ʔaž-žamal* [ɻaʒʒa'ma:l] (and ^t[ɻaʃʃa'-], ^m[ɻadʒdʒa'-, ɻal'ga-; ɻag'ga-]); but, of course: *ʔal-baħr* [ɻal'baħħ], *ʔal-kušk* [ɻal'kuʃk], *ʔal-walad* [ɻal'walad].

Other assimilation phenomena

9.1.5. In fluid neutral speech (but not in mediatric accents), *voice assimilation* is quite common, with voiced obstruents becoming voiceless, before voiceless consonants, and vice versa: *ʔižtamaħa* [ɻiʃtamaħħa], *ʔusħaq* [ɻaʒħaq].

Other cases of assimilation involving place *%or* manner of articulation are possible, as we will show below, according to the 'strength' criterion that we will see in § 9.1.9-15.

However, we must say, various publications do not always agree on a single ‘strength criterion’. For example, let us re-examine *?ižtamaғa* [Pɪʃ'tamaғa], form VIII of the verb *žamaғa* ['zamaғa]: the ‘stronger’ phone apparently is the [t] of the *-ta*-infix, which devoices ž. However, the following form-VIII verbs show a different behavior –frequently, reciprocal assimilation– *which is even recorded by the official orthography*: *?izdāna* [Pɪz'daːna], *?iddaғa* [Pɪddɑғa], *?iddakara* [Pɪddakarɑғa].

9.1.6. And, likewise, with ‘emphatic’ consonants: *?iṣṭabara* [Pɪṣ'tabara], *?idṭaraba* [Pɪdṭabara], *?iṭṭalama* [Pɪdṭalama], *?iṭṭalaғa* [Pɪdṭalaғa].

9.1.7. Another kind of assimilation that is usually recommended in neutral pronunciation, though not indicated by the official spelling, is the full assimilation of /d, ḍ; t, ḍt, z/ to the /t/ that is present in the perfective terminations *-tu*, *-ta*, *-ti*, *-tumā*, *-tum*, and *-tunna*; for example, *wažadtu* and *ʔakadṭa* should be rendered as [wa'žattu, ɬa'katta].

However, as the recordings enclosed with language courses prove, such assimilation is not always automatic with /d, z/, which –being constrictives– are easier to be kept distinct from the following dental stop /t/; and in the case of /t̪t, ḍt̪/, a compromise like [t̪t̪] is possible, instead of [tt] (see below).

There are also assimilation phenomena that are mainly dictated by *Koranic* recitation practices, such as in the case of the indefinite case endings *-un*, *-in*, *-an* followed by a word starting with /l, m, f/: /n#l, n#m, n#f/ → /l#l, m#m, f#f/. Other cases of assimilation occur in normal speech, instead, but are somehow more extreme and less obvious to categorize, eg *qad samiғa* [qas'samiғa], *lam yurid šay'an* [lám 'jusfíʃ 'ʃaiʃan], *ib'at ḫalika* [Píbғað 'ħa:lika], *iħfaż žāraka* [Píħfaʒ 'ža:ʃa:ka].

Frankly, it seems disputable whether foreign learners should really memorize all the possible combinations and employ them in daily conversation, when even native speakers are never consistent in doing so. On the other hand, one should be aware that neutral Arabic words may be subject to more or less pervasive assimilation, and non-native speakers should be able to deal with that to improve their listening skills.

9.1.8. As far as active use of the language is concerned, we believe that the best advice we can put forward is: always apply assimilation to the article, where required by current use (more than by ancient rules), not only in those cases that are explicitly recorded in writing, but also, as said in § 9.1.9-12, in spite of different possible behavior in neutral, mediatic, and traditional accents – including pragmatic usages (as shown there).

Outline of current assimilation types

9.1.9. *Phonation type*: the first obstruent assimilates to the second *obstruent* of whichever kind (but not to *approximants*, /j, w; ŋ; h/, nor to *sonants*, /m, n; l; ŋ/;

where we have: $[\text{C}\ddot{\text{C}}]$ (but $/\text{Ch}/ \rightarrow [\text{Ch}]$, as shown below), and $[\text{C}\ddot{\text{C}}^\#, \text{C}\dot{\text{C}}^\#]$). In addition, let us also consider the following ‘stylistic’ differences.

Obstruents + obstruents: / $\overset{\circ}{C}\underset{\circ}{C}$ / → [CC], [C $\overset{\circ}{C}$] (careful), [C $\overset{\circ}{C}$] (slow & mediatic),
 obstruents + obstruents: / $\underset{\circ}{C}\overset{\circ}{C}$ / → [C $\overset{\circ}{C}$], [C $\overset{\circ}{C}\underset{\circ}{C}$] (careful), [C $\overset{\circ}{C}\underset{\circ}{C}$] (slow & mediatic).

Some contexts (and variants):

$/dt/ \rightarrow [tt]$ $m[dd]$, $/s_R/ \rightarrow [z_R]$ $m[s_R]$, $/s\emptyset/ \rightarrow [s\emptyset]$, $/sR/ \rightarrow [z_R]$ $m[s_R]$, $/s\emptyset/ \rightarrow [s\emptyset]$,
 $/f_R/ \rightarrow [z_R]$ $m[f_R]$, $/f\emptyset/ \rightarrow [f\emptyset]$, $/zd/ \rightarrow [zd]$ $m[zd, dzd]$, $/zt/ \rightarrow [ft]$ $m[ft, tf]$, $/Ch/ \rightarrow [Ch]$.

9.1.10. *Place/manner of articulation* (for /n, l/): the first element assimilates to the second. /nC/ → [n̪C] (homorganic nasals in *n*, but *seminasals* in *m*, and *non-homorganic* in *q*).

Some contexts (and variants):

/nj/ → [pj] $m[pj]$ $q[nj]$, /nw/ → [ŋw] $m[ŋw]$ $q[nw]$, /nl/ → [ll] $m[ll]$ $q[nl, ll]$,
 /nf/ → [ff] $m[nf]$ $q[nf, ff]$, /nt/ → [nt] $m[nt]$, /nd/ → [nd] $m[nd]$,
 /ln/ → [nn] $m[ln]$ $q[ln, nn]$, /lf/ → [ff] $m[lf]$ $q[lf, ff]$.

9.1.11. Place/manner of articulation (for coronals): the simpler element (/t, d; θ, ð; s, z; ſ, ʒ/) assimilates to the more complex (/t̪, d̪; s̪, z̪/), or, in some cases, to the second one.

Some contexts (and variants):

/tC, dC; sC, zC/ → [tC, dC; sC, zC], /t̪t, t̪d; s̪s, z̪z/ → [t̪t, t̪d; s̪s, z̪z]
 /t̪t/ → [t̪t], /t̪d/ → [d̪d̪], /t̪t̪/ → [t̪t̪], /d̪t̪/ → [t̪t̪], /tz/ → [dz] m[zz], /t̪z/ → [d̪z],
 /ts/ → [t̪s], /t̪ʒ/ → [d̪ʒ], /kz/ → [gʒ], /sʃ, ʂ/ → [ʃʃ] m[ss, ʃʃ], /sC/ → [sC],
 /zʃ, ʐʃ/ → [ʃʃ] m[ss, ʃʃ], /ʒs/ → [ss], /ʒs/ → [ss], /ʒz/ → [zz], /zC/ → [zC],
 /s/ → [ss], /ʃs/ → [ss].

9.1.12. Place/manner of articulation (for back consonants): the simpler element (/f/ [f, h]) can assimilate to the more complex (/ħ; ʕ; q; ፻, ደ/), or, in some cases, to the first one.

Some contexts (and variants):

/kq/ → [kk], /qk/ → [qq] $m[kk, qq]$, /ꝑh/ → [ꝑꝑ], /ꝑf/ → [ꝑꝑ] $m[ꝑꝑ, ꝑꝑ]$
 /ꝑh, ꝑh, ꝑꝑ, ꝑh, ꝑh, ꝑꝑ/ → [ꝑꝑ].

9.1.13. Here are some of the most frequent combinations, for practice: *ribħin l-ixx* [rɪbħɪn 'ɪkː], *mubtallun* [mʊp'talluŋ], *ħabsun* [ħapsuŋ], *abqa* [aɒpqa], *iġ-ħabat* [iġ-ħabat], *mużtama'* [mużtamaː], *maħbub* [maħibub], *maħzūz* [maħżuːz], *makzan* [maħ-zan], *madkal* ['matkal], *masžid* ['maʒzid] (^t[maʒdʒid]), and:

mašgūl [maʒ'ru:l] *m*[ʃ-R-], *ṭasga* [Paڑra], *maqbūl* [maq'bū:l], *ṭazfara* [Paṭfa:fa], *mag-šūš* [maK'ʃu:f], *ṭafala* [Paṭfa:la], *tabta'fidu* [taP'taʃi,du], *tuṣbiḥu* ['tužbi,hu], *ṭakbar* [Paqba:f] *m*[q-b-], *naqdan* [naqdan] *m*[q-d-].

Others: *ta'bīn* [ta^ʔbīn], *ma'tūr* [ma^ʔθuṛ], *bi'run* [bi^ɻfūn], *mitrās* [mitʃas], *mat-ṣūb* [mat^ɻu:b], *ʔatlafa* [ʔat-la,fa], *ʔatqal* ['aθqał], *ʔatna* [Raθna], *mažrūḥ* [maʒ^ɻru:h], *mažnūn* [maʒ^ɻnūn], *taħsīn* [taħsi:n], *maktūm* [mak^ɻtum], and:

makfa ['ma^fkfa], *madrasah* ['ma^drasa; -ah], *adlā* [P^ad-la], *mazbah* ['mazbah], *maz'ūr* [maz'^fu^r], *muznib* ['mu^znib], *martabah* ['ma^rta,ba; -ah], *qirdun* ['qⁱrdun], *maryam* ['ma^rjām], *mazrū'* [maz'^fu^r'], *muzmin* ['mu^zmin], *tazhu* [ta^zhu].

9.1.14. Others: *musri'* ['mu^sfi^r'], *miswāk* [mi^swā:k], *mašta* ['ma^ʃta], *mašwi* ['ma^ʃwi], *misbāh* [mi^sbā:h], *maṣra'* ['ma^sra^f'], *adžā'a* [P^adžā:a], *ad'afa* [P^ad'afa], *madwi* ['ma^dwi], *maqtal* ['ma^qtal], *maṭbūk* [ma^tbu:k], *maṭ'ūn* [ma^t'u:n], or:

atyab [P^at-ja^b], *azlāma* [P^azla,ma], *maznūn* [maz'nū:n], *fursa* ['fu^rsa], *ardūn* [P^ardūn], *kurtūn* [ku^rtū:n], *malħūz* [malħu^z], *alṣaqā* ['alṣa,qa], *ta'lā* ['ta^lfa], *ma'žūn* [ma^žu:n], *ma'rūf* [ma^rfu:f], *'a'māl* [P^aa'mal], *aglā* [P^aaR-la], and:

miftāh [mi^fta:h], *afraza* [P^aaf-za:^aza], *mafku:k* [ma^fku:k], *mawdī'* ['maudī:f], *maw-kib* ['maukib], *maqha* ['maqha], *maktab* ['maktab], *maksūr* [ma^ksū:f], *makwā* ['ma^k-wa], *mal'ān* [mal'ā:n], *mal'ūn* [mal'ū:n], *alyan* [P^aaλ-ja:n].

Further: *amtī'a* [P^aamtī:^aa], *amṭara* [P^aamṭa:^ara], *imkān* [Pⁱmkā:n], *intafa'a* [Pⁱnta:^aa], *inmā'* [Pⁱnmā:], *inlakafa* [Pⁱnlakafa], *ihtamma* [Pⁱh'tamma], *mahmūn* [ma^h-mū:n], *ahwā* [P^ah-wa], *awħama* [P^auħa,ma], and:

yay'asu ['jai^yasu], *ayqana* [P^aiqna,na], *aynama* [P^ainna,ma], *ahlan* [P^aħlan], *naħnu* ['naħnu], *wa-Llāh!* [waLħa:(h)], *taqṭaqa* ['taqṭa,qa], *aq'aqa* ['aq'aqa], *mukk* ['mu:k:], *fiqh* ['fiqh].

9.1.15. In addition: *ṣifr* ['ṣif^f, -f^f], *naml* ['naml, -m^f], *mahmā* [ma^hmā:], *mawż* ['mauż], *siżn* ['siżn, -żn], *fahrastu-hu* [faħfa:^fastu,hu], *in šā'a Llāh* [Pⁱnʃa:^aħħa:^aħħ] (colloquially, [Pⁱnʃa:^aħħa:^aħħ]), *uqāwimu* [P^uqarwi,mu], *lužżatu-hā* [lu^zżżatu,ħā], *atruqu* [P^atruqu], and:

imām [Pⁱimā:m], *yamšī* ['jamʃi], *lāhiq* [laħħi^q], *lā'ib* [la:^ħi^ħb], *tis'a* ['tisħa], *sab'ūn* [sab'^fu:n], *ħizb* ['ħizb, -b^a], *kubz* ['kubz, -z^a], *hiya* ['ħia] t['ħija], *Sūriyyah* [su^fiyya; -ah], *awwal* [P^auwāl, -ww-], *huwa* ['ħua] t['ħuwa], *ħallāq* [ħalħa:^aq].

Also: *āħadu* [P^aħħa,du], *irži'*, *ħabib-i* ['iżżeⁱħ ħabib-i], *iftah* *aynay-ka* [Pⁱftaħ ħai'nika], *iftah* *ħadiyyata-ka* [Pⁱftaħ ħadidjja:tka].

Vowel and consonant quantity

9.2.1. In Arabic, the quantity of both vowels and consonants is distinctive. In our phonemic transcription and transliteration, the *consonant* quantity is shown by *gemination*: /CC/, CC. In phonetic transcription, the same notation [CC] is fully appropriate between vowels, for it helps to parse phono-syllables correctly: *āš-ħattu* [P^aħħattu].

In fact, one should expect a slight, but perceptible, difference between stressed and unstressed syllables, *at least in a tune*, such as [P^aħħat-tu, -t^t-], but that is not really necessary except in very precise, ‘hyper-phonetic’ transcriptions, describing very careful speech.

Elsewhere, it is better to resort to simple *lengthening*, [C]: *āš-ħatt* [P^aħħat[#]]. However, that really applies only to words in pure pre-pausal form, which is the exception, not the rule, in Arabic.

Unless we want to point out that a certain word was pronounced that way in a specific recording, or *must* be pronounced that way for whatever reason, it will be more convenient to stick to '[CC]' everywhere. In this way, we can safely transcribe *'arabiyy* as [ʕa:fə:bijj], implying that [-ijj-] is the basis for [Pəl, ʕa:fə:bijju, ʕa:fə:bijja:tan, ʕa:fə:bijj:jur:n(a)] &c – plus, of course, [ʕa:fə:bij:, -ij:] and even [ʕa:fə:bij:], as we have seen previously (cf § 8.4.1).

Vowel length is represented the same way in both phonemic and phonetic transcriptions: '/V:/ [V:]'. Again, it is predictable that in a protune, [V:] may reduce to [V·] (or even lose its lengthening at all, [V], in very fast speech). As said before (cf § 6.2), unstressed long vowels are [V·] only in very formal *or Koranic* pronunciation, otherwise they are generally shortened to [V].

9.2.2. In *very colloquial* speech, unstressed /i, u/ tend to reduce to some sort of [ə]-like vocoid (cf fig 6.7), or to drop entirely, provided this does not lead to the formation of a three-consonant cluster: *kitāb* [kɪ'ta:b, kə'ta:b; k'ta:b]; cf *'al-kitāb* [Pəl-kɪ'ta:b, Palkə'ta:b], but not *[Palk'ta:b].

On the other hand, again in *non-formal* Arabic, terminations are often dropped even in *connected* speech. In that case, two word-final consonants may happen to be followed by a word-initial consonant; and since three-consonant cluster are not allowed, a short vowel is inserted: generally, /i/ or the colloquial [ə].

Furthermore, *long vowels* tend to shorten a little in stressed checked syllables (but less than in unstressed syllables): *'aṣ-sūq'* [Pəs'su:qu, Pəs'su'q[#]].

Reduction or elision of morphological markers

9.3.1. The ‘codified’ reduction or loss of case endings, verbal terminations, and other morphological markers has occurred in Classical Arabic since pre-Islamic times, and it still is scrupulously applied in reciting religious texts, and above all, poetry.

Koranic orthography itself, from which modern orthography derives, is based on the principle that words should be spelt out in their *pre-pausal* form, riskily leaving the reader the task of adding the required terminations when reading aloud.

That means that, in theory, one may pronounce all word-final morphological markers in every instance: it is *not* a mistake! Nonetheless, such practice is neither requested nor encouraged when aiming at the best possible pronunciation.

As said, all of that was and is ‘codified’ according to a complex of morpho-syntactic rules rather than phonology and phonetics *per se*, and therefore, our readers are advised to consult their grammar handbooks and teachers for a detailed account of those rules.

9.3.2. In *modern, colloquial* pronunciation, things are rather different: the more colloquial/informal the register is, the more frequent reductions and elisions will be. Very often, that is not due to any ‘codified’ pattern, but rather to the understandable difficulties that contemporary Arabic speakers themselves encounter in dealing with incredibly and absurdly complex grammar rules.

As a matter of fact, those rules have already been considerably simplified, following some of the current behavior found in the modern ‘dialects’.

There is even a ‘modernist’ trend that considers such simplified, ‘de-inflected’ version of Arabic as the sole credible compromise between the written-only literary language and the spoken-only ‘dialects’.

We would be the first to welcome the adoption of a less heavily inflected *lingua franca* as the new official ‘standard’ Arabic, since pronunciation, too, would become much easier to teach and learn (to say nothing about its own rightful ‘dignity’).

Unfortunately, such option has proven unfeasible so far: first and foremost, due to the puristic conservatism that associates Classical Arabic with Islam; but also because of some structural constraints of the language itself, which make people consider final markers still relevant in too many cases.

Therefore, against our own propensity for consistency and predictability (and simplification, as well), we should be forced to recommend our readers to do their best to speak Arabic with all required inflections.

9.3.3. Thus, whenever a doubt arises, it may be wise to introduce a short pause so that pre-pausal uninflected forms can (legitimately) be used; but remember: this ‘trick’ should be used only as *extrema ratio* and never within sequences that logically should be pronounced as a whole, such as *‘al-madīnatū l-kabīrah* [‘alma’dīnātūl kabīra(h)] (noun + adjective), *bintu ž-žār* [bintuʒ ‘žax̥, -ʃ ‘ž-] (status constructus), *dakala l-walad* [daħħalal walad] (verb + subject), *wažadtu-hu* (verb + object suffix; note also: [wažattu-hu]), *fī l-funduq* [filfunduq] (preposition + noun).

Verbs and *pronouns* are more likely to maintain their endings, which often have distinctive and pragmatic values.

Some of the following examples have legitimate colloquial variants with dropped vowels: *hādā kitāb* [ħarðā ki’ta:b, ħa:ða:k t'a:b], *‘al-ħibru ḥayyib* [‘alħib-ru ‘ħajjib, tħajjib], *katabtu bi-hi* [ka:taptu:bifi, kaptubifi], *kāna fī l-bayt* [karna fil:bait], *ra’aytu l-bayt* [fa’raitul bair].

9.3.4. As far as ‘pre-pausal forms’ are concerned, let us see some illustrative examples, keeping in mind that this is an ‘orthological’ phenomenon that people use to pronounce words *in tunes*, including preceding words, semantically and syntactically linked (to the exclusion of grammemes).

This category includes final short vowels (with or without indefinite suffixes *-un*, *-in*, *-an*): *kataba* [kata:ba, kata:b], *yaktubu* [jaktu:bu, jaktu:b], *li'an yaktuba* [li:ʔajn jaktu:ba, jaktu:b], *fī madārisa* [fima'da:risa, -ris], *fī baytin* [fi'baitin, -bait]; *baytun* [baitu:, bait], *mundū zamanin wažizin* [murndu 'zama:nij waži:(in)].

As seen, ‘nunated’ endings *-un*, *-in* can be completely elided in pre-pausal form, while accusative indefinite (and adverbial) ending *-an* is supposed to become /a:/ [-a], at least in traditional pronunciation: *‘aṭāhu išrīna dinārā* [‘aṭa:ħu išri:na di:nār:a#] – *dinārā* actually being the pre-pausal form of *dināran*, accusative singular indefinite of *dinār*. Worth noticing are reduplicated adverbs such as *katīran katīrā* [ka:θi:raŋ ka:θi:ra#].

However, luckily, this rule is increasingly perceived as too conservative, and in everyday speech, one may encounter full preservation of *-an* or systematic reduction to *-ā* everywhere, depending on the speakers' degree of cultural and linguistic proficiency, as well as on their dialectal habits.

Full elision is uncommon, because unlike *-un*, *-in*, which can only be indicated in Arabic spelling by means of diacritics or are left unmarked, the presence of *-an* is signaled by a final *'alif*, whose orthographic conspicuousness is a potent 'reminder' to the speakers, at least when they are forced to read aloud written texts.

9.3.5. Nothing more is to be said about *tā' marbūtah* except for its behavior when preceded not by the usual /a/, but by /a:/, i.e. *-āt-* plus the appropriate case endings. Many Arabic speakers are inconsistent in their pre-pausal form rendition, and in fact, the theoretical *-āh* /'-a:(h)/ is much less common than what is really heard more often, i.e. *-āt*, e.g. *ħayāt* [ħa:jā:t] 'life', *zakāt* [za:kā:t] 'ritual alms'.

There are but a handful of such instances, and their rarity probably is the main reason why that habit has lastly prevailed over the rule. It is also possible that some sort of analogy with the homophonic plural ending *-āt*, and the presence of stress (unlike unstressed *-ah*), may have played a role, too, in influencing native speakers' preferences.

9.3.6. In addition, *colloquially*, very often /?/ is not maintained when it occurs within words or at the end of words. So, it is dropped or changed into /j, w/, or else it may lengthen a possible preceding vowel: *mi?ah* ['mi?a, -ah, 'mi-, 'mij-, 'mii-], *ya?kuđu* ['ja?kuđu, 'ja:kuđu, 'jaķu-], *ra?s* ['ra?s, 'rə:s], *samā?* [sa'ma:x?, sa'ma:].

When two *hamzas* occur in contiguous syllables, the first one is certainly maintained: *žā?a ?ažalu-hum* ['ža:r?a (?)a'žalu,hum, -(?)a'žalhum].

In /Cj, Cw, Cf, Cl/ sequences (and, more logically, /Cm, Cn/), the Arabic syllabification is heterosyllabic, /C[#]j, C[#]w, C[#]r, C[#]l/: *mitrās* [mit'rə:s], *?atlafa* [?at-la,fa], *madrasah* ['mad-ə:sə; -ah], *?adlā* [?ad-lə], *Maryam* ['ma:r-jam], *musri^f* ['mus-ə:f], *miswāk* [mis'wə:k], *mašwi* ['maʃ-wi], *?afraza* [?af-fə:za], *makuā* ['ma:k-wa], *?alyan* [?aλ-jan], *?ahwā* [?ah-wa].

9.3.7. In final position, after consonants, the sonants (/m, n, ʃ, l/) may be realized in different ways, according to how accurately one speaks. From a *phonemic* point of view, they are just consonants, but –*phonetically*– they may be normally voiced (or devoiced, mainly in front of a voiceless consonant), or intense ('syllabic'), or even with a short epenthetic vowel (like [i, ɪ], [u, ʊ] – colloquially or meditatively also [ə, ɔ], as even voiced obstruents can do).

Thus: *qism* [qis̡m, -sm, -səm, -s̡im], *ladn* [lədn, -d̡n, -dən, -d̡ən], *fatn* [fətn̡, -tn̡, -tən̡, -t̡ən̡], *duhn* [d̡uh̡n, -h̡n̡, -fi̡n̡, -fiən̡, -fi̡n̡], *badr* [bad̡f, -d̡f, -dəf, -d̡əf], *Misr* [mis̡f, -sf, -s̡f, -s̡əf, -s̡if], *fatl* [fat̡l, -tl̡, -təl̡, -tl̡], *ratl* [rə:t̡l̡, -tl̡, -təl̡, -tl̡].

We strongly suggest to avoid epenthetic vowels in international pronunciation and resort to intense consonants, instead, but only when that is really indispensable to articulate an otherwise difficult sequence to pronounce.

9.3.8. Here are some examples of typical Arabic *taxophonics*: *ta'bīn* [ta'bī:n], *ma'tūr* [ma'tūr], *mat'ub* ['mat'ub], *?atqal* ['?aθqal], *madkal* ['matkal], *mað'ūr* [mað'ūr], *tazhu* ['tazhu], *masžid* ['mazžid], *mašta* [maʃta], *mašgūl* [maʃgūl] *m[-ʃ]ru:l*.

And: *maṣra'* ['maṣra:], *?adža'a* ['?adža:a], *?ad'afa* ['?ad'afa], *?azlama* ['?azla:ma], *ma'žūn* [ma'žu:n], *ma'rūf* [ma'ruf], *?a'māl* ['a'mā:l], *magšūš* [maʃʃu:s] *m[-Rʃ]u:s*, *maqħā* ['maqħa], *mal'ān* [mal'ā:n], *yay'asu* ['jai?a:su], *?awħama* ['?auħħa:ma].

Stress

9.4.1. Theoretically, the perfect rendition of short and long vowels, as well as of single and geminated consonants would suffice to make one's pronunciation of Arabic fully intelligible, irrespective of stress.

However, for pronunciation to be considered as truly neutral, it is required that stress falls on the appropriate syllable, too. This does not mean that this 'rule' is always respected in mediatic and regional accents. As a matter of fact, stress in not distinctive in Arabic. Thus, it is not really important, communicatively.

In fact, in mediatic and regional accents, stress is often on a different syllable than predicted by rules.

The neutral rule is simple: the stressed is on the first 'heavy syllable' encountered *counting from the end of the word*. An Arabic syllable is considered to be 'heavy' if its nucleus is either:

(a) a long vowel or a diphthong followed by *at least one consonant*, even if that consonant, in fact, belongs to the following syllable – in symbols: /V:C#, VVC#, V:#C, VV#C/; or:

(b) a short vowel followed by *two consonants*, again, even if the second consonant belongs to the following syllable – in symbols: /VCC; VC#C/.

9.4.2. Therefore, a word like *kitābun* is to be parsed as *ki-tā-bun* from a purely phono-syllabic point of view, but as '*ki-tāb-un*' in order to detect syllable heaviness, which leads to /ki'tabun/. The same parsing applies to the compound *kitāb-ī* /ki'ta:bī:/.

According to (b), we have *kattaba* [kattaba] but *kattabtu* [kattaptu] and *kattabtu-kunna* [kattaptu'kunna], because, as said, the stress pattern will always re-arrange itself *counting from the last syllable backwards*.

If none of the last three syllables is heavy, the stress will fall on the third last, eg *kataba* [kata,ba], and never any earlier than that, as for example in the compound word *kataba-hu* [ka'taba,hu].

9.4.3. For a detailed list of all the possible combinations, let us refer to the list below: the symbol /\$/ stands for 'light' syllables, ie /(C)V#, (C)V#, (C)VV#, (C)VC#/; while /\$/ indicates 'heavy' syllables, ie /(C)V:C#, (C)VVC#, (C)V:#C, (C)VV#C/.

Finally, /\$/ indicates either a light or heavy syllable –indifferently– with no direct influence on stress assignment:

- 2 syllables: /\$\$, '\$\$, \$\$/,
- 3 syllables: /\$\$\$,\$\$\$, \$'\$ \$\$, \$\$\$\$/,
- 4 syllables: /\$' \$\$, \$' \$\$, \$' \$\$, \$\$\$\$/,
- 5 syllables: /\$' \$\$, \$\$' \$\$, \$\$' \$\$, \$\$\$' \$\$, \$\$\$' \$\$/,
- 6 syllables: /\$' \$\$, \$\$' \$\$, \$\$' \$\$, \$\$\$' \$\$, \$\$\$' \$\$, \$\$\$' \$\$/.

9.4.4. As said, all the stress patterns given belong to *modern neutral pronunciation*. A dialectal peculiarity found in Lebanon (which should not be followed) puts a final stress on words ending in /V[#], VV[#]/ (which, in neutral pronunciation, are not ‘heavy’ enough to bear a stress): *min-humā* ['minhu,ma] (and ↓[minhu'ma:]).

An Egyptian peculiarity consists in having a form like *katabatā* as [kataba,ta] pronounced [kata'bata] (in Cairo) or [kata,bata] (in Northern Egypt – but [ka,taba'ta:] in Lebanon), and so on.

9.4.5. Prefixes, such as the definite article, the conjunction *wa-*, and monosyllabic prepositions (like *bi-*, *fa-*, *la-*, *li-*, which are hyphenated) do not influence the application of the *stress rule*: *yadun*, ʔal-yadu, *wa-l-yadu*, *bi-l-yadi* – all stressed on [jɑ-]: [jadun, ɻaɻjаду, waɻjаду, biɻjadi].

That also explains why the relative pronouns ʔalladī and ʔallatī are pronounced [ɻallaði, ɻallati], not *[Pallaði, ɻallati], since as said, ʔal- is nothing but the definite article. Arguably, friendlier and morphonological spellings would be ʔal-ladī, ʔal-latī.

An apparent exception to the rule arises when a monosyllabic prefix forms a compound with full pronouns or pronominal suffixes, eg *wa-huwa* ['wahua] t['wahu,wa], *bi-hi* ['bihi], *bi-ka* ['bika], *fī-hi* ['fi:hi], *li-humā* ['lihu,ma], *la-kumā* ['laku,ma]. Here, a friendlier spelling, on the contrary, could be with *no dash*. Let us compare: ɻalay-kum [ɻalaikum] and maɻa-kunna [maɻa'kunna], with their heavy second last syllables.

As far as *secondary stress* in polysyllabic words is concerned, it tends to occur more or less on alternate syllables, but sometimes preferring the heaviest ones.

Lastly, here are some examples: *rasūl* [fa'su:l], *safanž* [sa'fənʒ], *murāsil* [mu'fə:sil], *tarassul* [taɻassul], ɻāsimah [ɻa:ʃi,ma;-ah], *mutafawwiq* [muta'fauwɪq] t[-fauwɪq], *mufāraqah* [mu'fə:qa(qa(h))], *madrasah* ['mad-ə:sə;-ah], *darak-ī* ['daɻa,ki], *muktalifah* [muɻ'tali,fa;-ah], ɻaɻalu-hum [ɻaɻalu,hu:m], *kataba-hu* [ka'taba,hu].

9.4.6. We give further useful examples: *ramat* ['famat], *ramat-hu* [fa'mathu], ɻaħad [ɻaħad], ɻaħadu-hum [ɻaħadu,hu:m], *šadda* ['ʃadda], *šadda-hu* ['ʃadda,hu], ɻardā [ɻarða], ɻardā-hu [ɻarða,hu], *katabti* [ka'tapti], *katabti-hi* [ka'tapti,hi], *muhallima-hu* [muħallima,hu].

And: ɻistalqā [ɻistałqa], ɻistalqā-hu [ɻistałqa,hu], *kātabā* [ka:taba], *kātabā-hu* [kata'bā,hu], *katabatā* and *kātabatā* [ka'taba,ta], *katabatā-hu* [ka,taba'ta,hu], *kātabatā-hu* [ka,taba'ta,hu], šażarat [ʃa:za:fat], šażaratun [ʃa:za:fa:tun].

9.4.7. Here are more examples (some longer): ɻadwiyatu-hu [ɻadwi'jatu,hu], *murtabiṭa* [muṛtabiṭa], *murtabiṭatun* [muṛtabiṭa:tun], šażaratu-hu [ʃa:za:fa:tuhu], šażaratun [ʃa:za:fa:tun].

And: šażaratu-humā [ʃa:za:fa:tuhu,ma], ɻadwiyatu-humā [ɻadwi'jatu,ma], *muta-*

žanniba [mu.ta'žanni.ba], *mutažannibatun* [mu.tazan.niba.tun], *mutaqātila* [mu.ta.qati.la].

Further examples: *ʔanā* [Pana], *ʔabādan* [Pabādān], *tāwūṣ* [tāwūṣ], *sižžādāt* [siz-žādāt], *kātib* [kātib], *kitāb* [kitāb], *ħāwlala* [ħāwlala], *baqāya* [baqāya], *ʔakalūha* [ʔakalūha], *ʔihtimāmu-hunna* [ihtimāmu-hunna], *ʔistiqbālātu-hunna* [istiqbālātu-hunna]. Let us end with *madrasah* [mad-ɾaʃa; -aʃ], *madrasatun* [mad-ɾaʃa.tun].

14.

International Arabic pronunciation

14.1. The *international* accent of Arabic, of course, is a kind of simplification, which tends to substitute the more peculiar phones with some more natural and widespread in different languages.

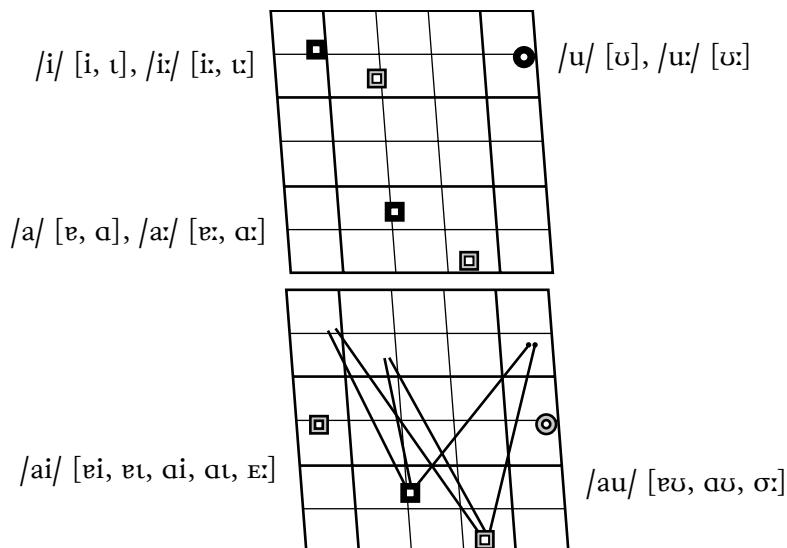
However, it is decidedly more precise than most descriptions found in specific books and articles, as the scanty and rather misleading one in the *Handbook of the International Phonetic Association*, 51-54 (with non-neutral sound files, neither for the segments, nor for the narrative text).

International Arabic exhibits a certain reduction in the number of vowel and consonant taxophones, as well. As regards the realizations of /a(ɔ)/, only two phones are sufficient, in stressed or unstressed syllables: [e(:)], for 2.3-7, and [a(:)], for 2.1-3 (cf § 6.2). Thus, there is a slight overlap for 2.3, variably resolved by single speakers.

The *vowel* realizations belonging to this kind of ‘international’ pronunciation (both monophthongs and diphthongs) are shown in fig 14.1. This ‘clearer’ pronunciation generally uses: [i(:), ɪ(:); e(:), a(:); u(:)].

It may also have [ɛ:, ɔ:] for /ai, au/, but not in the contexts seen in § 6.2. Of course, [ə, ɜ, ʊ] are not necessary (and, least of all, [ə], all seen in § 6.4, cf fig 6.7).

fig 14.1. International Arabic: vowels and diphthongs.



14.2. As for the *consonants*, this international Arabic pronunciation tends to use those of the neutral accent, with its more important taxophones, as well.

However, for the following consonants, it can certainly use some more natural and widespread contoids.

Thus, /t, ḍ/ may be velarized, [t, ḍ], or even labialized, [t̪, ḍ̪]. So, they can have a sort of duller timbre, which may be sufficiently different from plain [t, d].

The same is true of /s, z/, which may be velarized, [s, z], or labialized, [s̪, z̪], to result somewhat different from [s, z].

The possible, more complicated, variant /z/ [ð] is not strictly necessary, not even as [ð̪], or [ð̪̪]. However, [ð] should be kept, being a phoneme, as well as [θ].

The phoneme /ʃ/ [ʃ̪] should actually be [ʃ̪], although [ʃ̪̪] would not be odd. The same for /ʒ/ [ʒ̪, ʒ̪̪] (or [dʒ̪, dʒ̪̪], as a personal choice).

Initial [?] may be dropped, while all others have to be pronounced, at least as [?] (which is less strong than [?̪]).

14.3. As for /ħ/, it is sufficient to distinguish it from both /h/ and /χ/. Thus, /ħ/ can be realized as a stronger *h*, that is a phonetically more prominent contoid: either as [ħ̪], a velar approximant, or as a velar semiconstrictive, [ħ̪̪].

Another possibility might be [ħ̪], whose lip rounding can be sufficient to differentiate it from a plain [ħ̪].

If these requirements are fulfilled, /ħ/ [ħ̪, ħ] can safely enough be uttered as a plain [ħ̪] (but it would be better if realized as [ħ̪̪], as in neutral pronunciation, in the expected contexts).

On the other hand, for /χ/ [χ̪] a uvular [χ̪] can be sufficient (although with no trill effect). Also /ṛ/ [ṛ̪] can, then, be realized as a normal uvular [ṛ̪] (again, with no trill effect).

The important thing is to succeed in keeping them sufficiently different, so that no phoneme is lost.

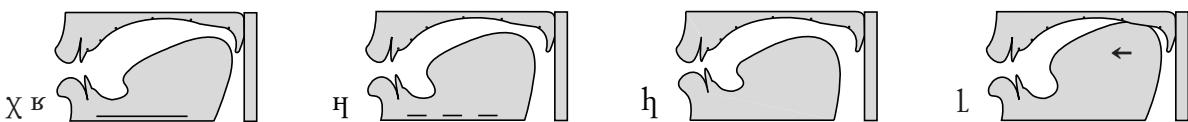
Arguably, the phoneme /ʕ/ [ʕ̪] is the most difficult contoid of the Arabic language. Nevertheless, it cannot be either dropped or realized as a voiceless contoid. Nor should it become a kind of an *a* vowel.

Thus, it must be exercised with particular care, either as a true pharyngeal [ʕ̪] or as a prepharyngeal [ʕ̪̪] approximant – always voiced.

Of course, rather than changing [ʕ̪] into a vocoid like [ʌ], it might be simpler, and perhaps a little better, to drop it and replace it by using creaky voice on some of the voiced phones around it: either vowels or consonants, with some possible lengthening.

So, we could have: ʕala [ʕala; 'aɻa], maʕi [maʕi; 'mäɪ], biʕtu [biʕtu; 'bɪɻtu], maʕ [maʕ; 'mäɻ], rabiʕ [ra'biiʕ; -biiɻ], rubʕ [rubʕ; 'rʊbɻ].

fig 14.2. International Arabic: different *consonants*.



14.4. As for /ʃ/ [ʃ, ʂ], a simple [r], or [r̥], can be sufficient. Perhaps, it can be made a little duller, by adding lip rounding, [f̥, ڻ], or some velarization, [ɻ, ڻ].

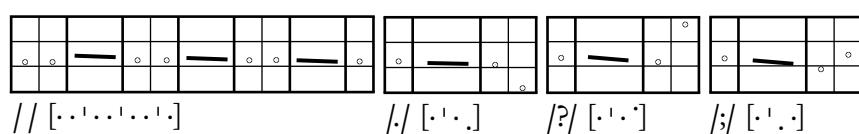
Lastly, [t̪] could be velarized, [t̪], or realized as a velar lateral, [l]. However, [l] should in no way be changed into either of these two: [t̪, l]! Let us add the orograms of the few new (and simpler) contoids, shown in fig 14.2.

However, in our international transcriptions, we leave [t̪, d̪; s̪, z̪; ɿ̪], instead of [t̪, d̪; s̪, z̪; ɿ̪].

14.5. As for *stress*, what has been said in § 9.4.1-7, can safely be followed, trying to be consistent. However, in Arabic, stress is not distinctive, at all. In addition, there are different ‘rules’ in different places (cf § 9.4.4), and native speakers themselves can not be very consistent, indeed. Thus, stress is no real problem.

The most recommendable *intonation* patterns, for international Arabic, are given in fig 14.3.

fig 14.3. International Arabic: *intonation*.



The North Wind and the Sun

14.6. As an example of this international Arabic accent, there follows a normalized transcription of the text given in § 11.2.3.

Kānat rīḥu š-šamāl tatażādalu wa-š-šams fi ʔayyin min-humā kānat ʔaqwā mina l-²ukrā, wa-²iđan bi-musāfirin yaṭlau mutalaffiun bi-²abā²atin samīkah. Fa-ttafaqatā ²alā i²tbāri s-sābiqi fi ʔižbāri l-musāfir ²alā kal*l*ⁱ ²abā²ati-hi ²al-²aqwā.

Paṣafat rīḥu š-šamāl bi-²aqṣā mā ?istatā?at min qūwah. Wa-lākin kullamā ?izdāda l-ASF, ?izdāda l-musāfiru tadatturan bi-²abā?ati-hi, ?ilā ?an ?usqīṭa fī yadi r-rīḥ, fa-takallat ?an muḥāwalati-hā. Ba'da ?idīn saṭā'ati š-šamsu bi-dif'i-hā, fa-mā kāna mina l-musāfiri ?illā ?an kala'a ²abā?ata-hu ?alā t-taww. Wa-hākadā ?udturrat rīḥu š-šamāl ?ilā l-²tirāf bi-²anna š-šamsa kānat hiya l-aqwā.

Hal kānati l-qissatu žamīlah? Hal turīdu ʔan nuraddida-hā?

Paq-
ka:net·'ri:hüsʃəm'ə:l;·,tete'fʒə:de:lən wəʃʃəms.:· fi'Pəijim 'münhus,me·| ka:net·'ri:hüsʃəm'ə:l;·,tete'fʒə:de:lən wəʃʃəms.:· fi'Pəijim 'münhus,me·| Paq-
wa:mün'pə:lər'pə:χərə.| we'Pəið bim'sə:fürən·'jat'həfəs, müte'leffīfəs, bı'fə:təbə:tərə se'mi:
keh..|| fette'fəqə:tə:·| se'le süt'i:bərəs'sə:bıqı:·| fi'Pəið'bərəl m'sə:fürən·'jat'həfəs, bı'fə:təbə:tərə se'mi:
tihı:·| Paq-wə:·||

اهای پردازی کنید و آن را در میان این دو کلمه قرار دهید. این کار را تکرار کنید تا در نهایت متن خوبی بگیرید.

15. Some national/local phonopses (& map)

15.1. We will provide the phonopses of four main Arabic national koinés, for their neutral accent: the Levant, the Gulf, Egypt, Morocco (adding Algerian Kabyle Berber, for interesting comparisons, and Maltese, as well).

Arguably, each of these accents certainly also presents some more marked and popular accents *and* language, or dialect. In fact, their structure changes not only phonically (also with different phonemes), but even more as far as their grammar and vocabulary are concerned.

fig 15.01. Arabic *national* dialects/languages: *Levantine & Gulf Arabic* areas.



fig 15.02. Arabic *national* dialects/languages: *Northern Africa* areas (including Malta, European).

