CHAPTER TWO

THE PHONOLOGY OF IBB VARIETY

2.1. Preliminary Remarks

The founding father of Arabic grammatical studies, the Arabic grammarian, Amr ibn Uthman ibn Qanbar Sibawayh, has by the eighth-century CE studied the consonantal system of Classical Arabic. Classical Arabic had been said to have twenty-eight consonantal phonemes in nine places of articulation (Watson 2002/2007: 12). The most probable articulations of these phonemes are shown below. In all modern Arabic varieties, there has been a change in the number and articulation of the consonantal phonemes. It is impossible to provide a fully accurate description of Arabic sounds solely through written description and classification. Some sounds are very similar to English, some others slightly similar, and others quite different.

Semitic languages are marked by a limited vocalic system and a rich consonantal system. There are typically three basic vowels a, i, u, which are attested in both their short and long forms. Semitic languages are also marked by a rich inventory of ‘guttural consonants’, that include the pharyngeals /h/ and /ʔ/ and the uvular fricatives /x/ and /ʁ/. The consonantal phonemes of Semitic languages usually constitute triads of voiceless, voiced and ‘velarised’ in certain sub-sets of the coronal set, and in a few languages, including varieties of Arabic spoken in parts of southwest Yemen, in the dorsal set. This section provides a phonemic chart and some general principles of articulation as well as descriptions of Arabic sounds. The descriptions given here are for Ibb Variety (IV).
### 2.2. Phonemic Chart of MSA Consonants

Table: Consonantal phoneme inventory for eighth-century (CE) Classical Arabic

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Dental</th>
<th>Interdental</th>
<th>Alveolar</th>
<th>Alveo-Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apicals</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stop</strong></td>
<td>b</td>
<td></td>
<td>t</td>
<td>d</td>
<td>k</td>
<td>g</td>
<td>q</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td><strong>Fricative</strong></td>
<td>F</td>
<td>ø</td>
<td>s</td>
<td>z</td>
<td>f</td>
<td>x</td>
<td>s</td>
<td>h</td>
<td>? h</td>
</tr>
<tr>
<td><strong>Nasal</strong></td>
<td>m</td>
<td></td>
<td>n</td>
<td></td>
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<tr>
<td><strong>Lateral</strong></td>
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<tr>
<td><strong>Flap</strong></td>
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<td></td>
<td>r</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Semi-vowels</strong></td>
<td>w</td>
<td></td>
<td>j</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.2.1. Description and distribution of Sounds in Ibb

With the exceptions noted below, almost all consonants, including two glides /w/ and /j/, can appear in all positions: word-initial, word-medial, and word-final. Additionally, all consonants and glides can be made geminate, e.g. [mm], [zz], and [gg].

1. /ʔ/ Voiceless glottal stop

The glottal stop /ʔ/ is a distinct phoneme occurring in IV in different word positions, i.e. the word-initial, the word-medial or word-final positions. Especially as far as word-medial and word-final positions, the glottal stop in IV is more prominent in
comparison with some other varieties of Yemen, such as ḍamar Variety or Sana’a Variety where the glottal stop is normally changed into /j/ sound.

\[
\begin{align*}
+\text{cons} \\
+\text{voice} \\
-\text{son} \\
-\text{cont}
\end{align*}
\]

?ana ‘I’ (pro. 1 singular) انا

?algaza:ʔir ‘Algeria’ الجزائر

ṣanʔa? ‘the capital of Yemen Sana’a’ صنعاء

2 /b/ Voiced bilabial stop

The sound /b/ is found in many words in IV, among which are the following

baːrid ‘cold’ بارد

muːbu ‘what happened’ موبو

harab ‘ran away’ هرب

\[
\begin{align*}
+\text{voice} \\
+\text{lab} \\
-\text{son} \\
-\text{cont}
\end{align*}
\]

3 /t/ Voiceless alveolar stop

The voiceless alveolar stop /t/ is similar to that of the sound /t/ in English; for examples:
IV has two different symbols for the two phonemes represented by ‘th’ in English, i.e. the voiceless, as in “think” (often transcribed as /ө/) and the voiced interdental as in “them” (often transcribed as /ð/). The voiceless interdental fricative /ө/ in Arabic in general (including IV) is similar to the sound /ө/ in English. Here are some examples:

- /ө/ Voiceless interdental fricative

\[
\begin{align*}
\text{өa:njih} & \quad \text{‘second (f.)’} \\
?\text{әәar} & \quad \text{‘trace’} \\
\text{әalu:ө} & \quad \text{‘Tuesday’}
\end{align*}
\]
5  /g/  Voiced velar stop

The sound /g/ in IV can be said to be the counterpart of the sound /g/ as in “good” in English. However, it is not exactly the same. It is to be noted here that although the /g/ sound in IV is velar it is pronounced using the front part of the velum, unlike the /g/ in English, which is similar to the /g/ sound in Taizi Yemeni Variety. Moreover, speakers of ḍāmari and Sana’ani Yemeni Varieties use the voiced alveolar palatal /dʒ/ sound as a counterpart for the IV /g/ sound. From the perspective of place of articulation, the pronunciation of IV /g/ occurs in the middle between the palate-alveolar position (of ḍāmari Yemeni variety) and the velar position (Taizi Yemeni Variety). Interestingly, Ibb Governorate is geographically located between ḍāmar and Taiz. That is to say, although the /g/ sound of IV is a distinct phoneme with its own qualities, one can see it as an admixture of both the /dʒ/ of ḍāmari Yemeni Variety and the /g/ of Taizi Yemeni Variety.²

Example of /g/ in IV are as follows:

<table>
<thead>
<tr>
<th>Arabic</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɡaraf</td>
<td>‘garage’</td>
</tr>
<tr>
<td>ɡaram</td>
<td>‘throw’</td>
</tr>
<tr>
<td>ɡarag</td>
<td>‘went out’</td>
</tr>
</tbody>
</table>

\[
\left\{\begin{array}{l}
-\text{voice} \\
-\text{son} \\
-\text{cont} \\
+\text{dors}
\end{array}\right.
\]
6 /ḥ/ Voiceless pharyngeal fricative

Ryding (2005) states that /ḥ/ of MSA is not present in English, which is produced deep in the throat using the muscles in the pharyngeal cavity. The same applies as far as IV is concerned. In order to pronounce this sound, the muscles in the pharyngeal cavity must be constricted while at the same time pushing breath through – as though one is trying to stage whisper “hey!”.

Examples of this sound are listed below:

- hammam ‘bathroom’ حمام
- habhab ‘watermelon’ حبة
- ru:ḥ ‘go’(imperative mood) روح

7 /x/ Voiceless velar fricative

The pronunciation of /x/ is very similar to German, Scottish, and Polish unpalatalised “ch”, Russian х (Cyrillic kha), and Spanish “ j”. This sound has no any humming or vowel sound (known as vocalization). It is like a whisper; which the vocal cords do not vibrate. The most common transliteration in English is “kh”, e.g. Khartoum (?al-xarṭuːm; the capital of Sudan), sheikh. This is a common sound in IV. Examples

- xariːf ‘autumn’ خريف
- nuxra ‘nose’ نحرة
- jaṭbux ‘he is cooking’ يطبخ
8 /d/ Voiced alveolar stop

This phoneme is a voiced alveolar stop, resembling the English /d/ as in “door”. Here are some examples:

- da:ri  ‘I know’ داري
- midri  ‘I don’t know’ مديري
- barad  ‘became cold’ بزد

9 /ð/ The voiced interdental fricative

In IV, the sound /ð/ is pronounced like /ð/ in English as in “leather” and “lathe”. Examples:

- ḏanb  ‘sin; misdeed’ دَنَب
- mu?aʔḍin  ‘muezzin’ مُؤثّن
- laðiːʔ  ‘delicious’ لذيذ
10 /r/ Voiced alveolar flap

The /r/ of IV is a tongue flap, produced by striking the tip of the tongue against the roof of the mouth. Accordingly, it slightly resembles the dark /r/ in English in such words as ‘three’, ‘free’ and ‘agree’. Examples:

raʂda  'asphalted road'  زَصْدَة
maraq  'soup'  مْرَق
qaːr  'plastic'  قَار

11 /z/ Voiced alveolar fricative

The sound /z/ in IV is similar to the English counterpart /z/ as in ‘zip’. Here are some examples in IV:

ziːnih  ‘decoration’  رَزِينة
raziːn  ‘heavy; sober-minded’  رَزِيْن
ruzd  ‘rice’  رُز
12 /s/ Voiceless alveolar fricative

This sound is similar to the sound /s/ in English as in ‘sang’.

<table>
<thead>
<tr>
<th>Arabic</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>sittin</td>
<td>‘sixty’</td>
</tr>
<tr>
<td>sannib</td>
<td>‘stood up’</td>
</tr>
<tr>
<td>bijas</td>
<td>‘money’</td>
</tr>
</tbody>
</table>

13 /ʃ/ Voiceless Alveo palatal fricative

This sound is similar to the /ʃ/ in English as in ‘ship’, ‘sheen’ and ‘fish’. The following are some examples:

<table>
<thead>
<tr>
<th>Arabic</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>jaraf</td>
<td>‘honour’</td>
</tr>
<tr>
<td>miʃmiʃ</td>
<td>‘apricot’</td>
</tr>
<tr>
<td>maʃtiʃ</td>
<td>‘I don’t want’</td>
</tr>
</tbody>
</table>
This sound is pronounced further back in the mouth, with a raised and tensed tongue. The sound /ʂ/ is lower in pitch and deeper than the /s/. This sound exists in MSA as well as in IV as a phoneme and as a sound, unlike in English where a slightly similar pronunciation occurs especially for the initial-position /s/ sound in such words as ‘some’, ‘son’ and ‘sun’. Examples from IV are as follows:

\[
\begin{align*}
\text{ʂu:f} & \quad \text{‘wool’} \\
\text{qaʂi:r} & \quad \text{‘short’} \\
\text{maʂdu:m} & \quad \text{‘shocked’}
\end{align*}
\]

15 /ɖ/ Voiced velarized alveolar stop

The sound /ɖ/ is pronounced further back in the mouth, with a raised and tensed tongue. It is pronounced as /ɖ/ in IV. Consider the following:
daːq  ‘to get fed up’  ضاق
ḍamiːr  ‘conscience’  ضمير
beɪɖ  ‘eggs’  بيض

\[
\begin{align*}
\text{-voice} \\
+\text{cor} \\
+\text{ant} \\
-\text{son} \\
-\text{cont}
\end{align*}
\]

16 /t/  Voiceless velarized alveolar stop

Blanc (1978) says “The Yemenite /t/ is not voiced but voice-indifferent, i.e. it has both voice and voiceless allophones”, which in the variety of Sana’a it occur in non-geminates and geminates respectively (Quoted in Watson 1995: 9). Sibawayh mentions that the sound /t/ is similar to the sound /t/, which Alnassir (1993) disagrees with and sees them as devoiced and voiceless, respectively. Ibn Sina?a describes a /t/ as ‘clearly voiceless’ (in Blanc 1978). It is agreed that it is currently produced without glottal closure or vocal fold vibration in the majority of MSA varieties as happens in IV. The sound /t/ is pronounced further back in the mouth, with a raised and tensed tongue. Examples:

ṭarah  ‘(sb) put (sth)’  طراح
xarṭ  ‘telling lies’  خرط
qariːt  ‘pain in ankles’  قريط
17 /dʰ/  Voiced velarized interdental fricative

This sound is also pronounced further back in the mouth, with a raised and tensed tongue. Here are some examples:

\[ \text{dʰa:bih} \quad \text{‘angry’} \quad \text{طَابِح} \]
\[ \text{adʰi:m} \quad \text{‘great’} \quad \text{عَظِيمٌ} \]
\[ \text{ḥadʰ} \quad \text{‘luck’} \quad \text{خَط} \]

18 /ʕ/  Voiced pharyngeal fricative

Ghazali (1987) mentions that sound is a “strangled” sound that comes from deep in the throat, using the muscles used in swallowing. Non-native Arabic speakers find it difficult to pronounce this sound as it is not available in many languages. Here are some words with /ʕ/ in them.
ummal ‘workers’

jil‘abu: ‘they play’

barra‘ ‘get lost’

\[
\begin{align*}
+\text{voice} \\
-\text{son} \\
+\text{cont}
\end{align*}
\]

19 /ʁ/ Voiced velar fricative

Hadj-Salah (1987) calls this sound a “gargled” sound, much like French /r/. It can be seen as the voiced counterpart of /x/. Here are some words with /ʁ/ in them:

\[
\begin{align*}
\text{ʁalaʈ} & \quad \text{‘error’} \\
\text{luʁa} & \quad \text{‘language’} \\
\text{mablæʁ} & \quad \text{‘amount’}
\end{align*}
\]

\[
\begin{align*}
-\text{voice} \\
-\text{son} \\
+\text{cont} \\
+\text{dors}
\end{align*}
\]

20 /f/ Voiceless dental fricative

This sound is like /f/ in “fine”. The sound /f/ is quite similar to its English counterpart. In the production of the IV /f/, the lower lip interacts with upper teeth to obstruct the air stream. Consider to the following examples:
In IV, the sound /v/ is not available by itself as phonemic sound. Rather, it is an allophone of the /f/ sound because no minimal pairs exist. The /v/ in borrowed words (e.g. ‘villa’ and ‘video’) is normally pronounced /f/. Moreover, if an IV speaker chooses to use /f/ instead of /v/, no change in meaning is obtained. Here are some examples of words containing /v/:

- filla  ‘western style residence, ‘villa”  فيّلا
- fidiju:  ‘video’  فيديو
- fu:lfu  ‘Volvo’  فولفو

21 /q/ Voiceless uvular stop

This sound is made by “clicking” the back of the tongue against the very back of the mouth, where the uvula is. Spoken mainly by speakers of Yemeni varieties in the southern and western parts of the country (cf. Watson, 2002/2007), the sound /q/ is a Voiceless Uvular Stop. While IV (and many other varieties, such as Taizi, Adeni, Abiyani etc. Varieties) follows MSA concerning this sound, some other Yemeni varieties, e.g. Sana’ani, ḍamari, Hadhrami etc., use the sound /g/ as a counterpart.
quziːz  ‘bad character’ قُرِّيرًا

maqlaʔ  ‘get lost’ مقَأع

faraq  ‘too late’ شَرَق

22 /k/ Voiceless velar stop

This sound is like /k/ as in “king”, very much similar to the /k/ in English. Here are some examples:

kundura  ‘shoes’ مُْذُسَج

kuwakah  ‘that’s him’ كُوَأْكِه

ʔaseɪk  ‘did you see?’ أَسْكِ

23 /l/ Voiced alveolar lateral

This sound has two pronunciations:

(a) /l/ as in “well” (back or “dark” /l/)

Examples:

/allah/ allah  ‘God’ الله
(b) /l/ as in “lift” or “leaf” (fronted or “light” /l/)

/\li:m/  ‘lemon’  لِم
/qalam/  ‘pen’  قَلِم
/hul/  ‘take off; answer’ (impv. ۲nd p.s.)  خُلّ

\[
\begin{array}{c}
+\text{ant} \\
-\text{son} \\
+\text{cont} \\
\end{array}
\]

24 /\textit{m}/  Voiced bilabial nasal

This sound is similar to the /m/ sound in English, as in ‘moon’; e.g.:

midri  ‘I have no idea’  مَدْرِي

\[
\begin{array}{c}
+\text{voice} \\
+\text{cor} \\
+\text{lab} \\
+\text{cont} \\
\end{array}
\]

25 /\textit{n}/  Voiced interdental nasal

This sound resembles the /n/ sound in English, as in the word ‘nasal’. For example,

na:mis  ‘mosquito’  نَامِس
26 /h/ Voiceless glottal fricative

It sounds like the English /h/ in words such as ‘hello’ and ‘had’. Examples:

- hina:k ‘over there’ هنالك
- hina ‘here’ هنا
- lamuh ‘why’ لماذا
- sahl ‘easy’ سهل

27 /w/ Voiced bilabial semivowel

This sound is similar to the English sound /w/, as in ‘wind’, or the long vowel /u:/ as pronounced in words like “food”.

Examples:

wem ‘where’ وين
qawwa ‘most welcome’ قوًا
hilwa ‘good (f.)’ جلّوه

\[
+\text{voice} \\
+\text{lab} \\
+\text{son} \\
+\text{cont} \\
+\text{dors}
\]

28  \textit{lji}  Voiced palatal semivowel.

This sound is pronounced like /j/ as in “yes” or long vowel /i:/ (long) /i/ in “machine.”

Examples:

ja:ba:nj ‘Japanese’ ياباني
jamanji:n ‘Yemeni guys’ يمني
ba:lж ‘old’ بالي

\[
+\text{cont} \\
+\text{voice} \\
-\text{ant} \\
+\text{son}
\]

Table: The Phonological Features of IV Consonants

<table>
<thead>
<tr>
<th>Phonetic representation</th>
<th>Stated Glottis</th>
<th>Place of Articulation</th>
<th>Manner of Articulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>Voiced</td>
<td>Bilabial</td>
<td>Stop</td>
</tr>
<tr>
<td>t</td>
<td>Voiceless</td>
<td>Alveolar</td>
<td>Stop</td>
</tr>
<tr>
<td>ţ</td>
<td>Voiceless</td>
<td>velarized alveolar</td>
<td>Stop</td>
</tr>
</tbody>
</table>
### 2.3. Vowels

Vowels in IV are of two types, short and long. The short vowels are /i/, /a/ and /u/. The short vowels have longer counterparts /iː/, /aː/ and /uː/, respectively as shown below.

#### 2.3.1. IBB Variety Vowels

Table of IV Vowels

<table>
<thead>
<tr>
<th>Position</th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short</td>
<td>Long</td>
<td>Short</td>
</tr>
<tr>
<td>High</td>
<td>/i/</td>
<td>/iː/</td>
<td></td>
</tr>
<tr>
<td>Mid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>/a/</td>
<td>/aː/</td>
<td></td>
</tr>
</tbody>
</table>
2.3.2. Distribution of Vowels

McCarthy (2005) argued in Cairene Arabic, word-final vowels are short, but the same vowels sometimes are longer when followed by a suffix. His argumentation applied to IV as well. Here are some examples:

?abu ‘father of’ ابو ابو: ‘your father’ ابو
?axu ‘brother of’ اخو اخو:hum ‘their brother’ اخوه
kunk ‘I were’ كن maku:nakf ‘I were not’ ماكونناتش

The /i:/ is the longer counterpart of /i/. It resembles the /i/ of the English word ‘machine’. It is a long high front vowel.

gadi:d ‘new’ جديد
qaşi:r ‘short’ قصير
ga:ri: ‘my neighbour; current’ جاري

The sound /a/ is a short low front, central vowel in IV.

Examples:

ðakara ‘she studied’ (3<sup>rd</sup> ps p.f.) ذاكرة
raqaş ‘he danced’ (3<sup>rd</sup> ps p.m.) رقص

The longer counterpart of /a/ in IV is the /a:/ sound. The long /a:/ is commonly found in open syllables or the word-final position, when it sometimes follows by pronominal suffix. e.g.,
ta:b  ‘repented’

rumma:n  ‘pomegranate’

ruxṣa  ‘permission’  ruxṣa:tkum  ‘permission’

saja:  ‘a name of girl’

ḥala:  ‘sweet; ok’

The /u/ is a short high back rounded vowel. It is close to the /u/ sound in the English words ‘book’ and ‘look’. This variant occurs in word-medial or final position; e.g.

muhu  ‘what’

rumma:n  ‘pomegranate’

The /u:/ is a long high back rounded vowel. It is similar to the English vowel sound in ‘spoon’. As with /i:/ and /a:/', the long /u:/ is commonly found in open syllables or in the word-final position. For example,

ḥabbu:b  ‘dear one’

?ju:n  ‘eyes’

ʃu:t  ‘kick (imp verb)’

ʃallu:  ‘they took’

?alu:  ‘hello’
The semivowels /w/ and /j/ are called waw and ya:, respectively. The letters waw and ya: have two functions: they represent the consonant sounds /w/ and /j/, respectively, and they also represent the long vowels /u:/ and /i:/.

2.4. Sound combinations

2.4.1. Diphthongs

Diphthong is a complex vowel sound that begins with the sound of one vowel and ends with the sound of another vowel, in the same syllable. Alotaibi and Hussain (2010) indicate that MSA has thirty six phonemes, of which six are vowels, three diphthongs, and 28 are consonants. In IV there are thirty nine phonemes, six vowels and five diphthongs. The six vowels are /a, i, u, a:, i:, u:/.

It’s argued that there are five diphthongs in IV.

| /ei/ | bert | ‘house’ |
| /ai/ | fam | ‘napkin’ |
| /ij/ | ?ijdi | ‘my hand’ |
| /uw/ | luwz | ‘almond’ |
| /iw/ | siwaqa | ‘driving’ |

2.4.2. Consonant clusters

2.4.2.1. Geminates (Identical Segments)

IV consonants are classified as either short (single) or long (double). Geminate consonants are clusters of two identical consonants, and, by definition, are long or double. With certain exceptions, most double consonants can be found in all positions. The consonants /h/ is not normally doubled in the word-final position, and the glottal stop /?/ is not normally doubled in the word-initial and word-final positions.
**Word-Initial**

In this context, it is clear that IV does not allow consonant gemination in the word-initial position. However, in case the ‘solar’ definite article *?al-* is attached to the word, then the word-initial consonant may reveal gemination. Here are some examples:

- ??????????????
- ?assabt ‘[the] Saturday’

**Word-Medial**

Intervocalic germination of all consonants can occur in IV in the word-medial position. Examples:

- ??addatani ‘she bothered me’
- bakkar ‘he got up early’
- bajjad*dh ‘whiten’
- fassar ‘explain; to daydream’

**Word-Final**

It occurs with the Verbs involving that have identical second and third radicals. Examples:

- ??amm ‘to spread’
- şadd ‘to prevent’
- radd ‘to return/respond’
2.4.2.2. Two-consonant clusters

Standard Arabic calls this phenomenon /?i?:ti?:qa:sakni:n/ (i.e. adjacent two consonant sounds) but it is never allowed in MSA except, and even not preferred, in word-final position provided that one of the consonants is a liquid and the word exists at the end of the sentence or phrase, i.e. there must be a pause after the final consonant. IV, however, breaks this phenomenon and supports the co-occurrence of two-consonant clusters together. These are defined here as any combination of two or more different consonants. They fall into the following types:

Word-Initial

These are common in IV:

- tfadḍal ‘Welcome’
  
  $C_1 /t/ = \begin{cases} +\text{cont} \\ -\text{son} \end{cases}$  
  $C_2 /f/ = \begin{cases} -\text{cont} \\ +\text{son} \end{cases}$

- ?ista?lim ‘(you, m.s.) ask’
  
  $C_1 /s/ = \begin{cases} -\text{cont} \\ +\text{son} \end{cases}$  
  $C_2 /t/ = \begin{cases} +\text{cont} \\ -\text{son} \end{cases}$

Word-Medial

The following are some examples of word-medial two-consonant clusters:

- ?abširak ‘I see you’
  
  $C_1 /b/ = \begin{cases} +\text{voice} \\ -\text{cont} \end{cases}$  
  $C_2 /s/ = \begin{cases} -\text{voice} \\ +\text{cont} \end{cases}$
nuxra ‘nose’ نُخْرَة

\[ C1 /x/ = \left\{ \begin{array}{c}
\text{voice} \\
\text{son}
\end{array} \right\} \quad C2 /r/ = \left\{ \begin{array}{c}
\text{voice} \\
\text{son}
\end{array} \right\} \]

gum'a/ ‘Friday’ جُمُعة

\[ C1 /m/ = \left\{ \begin{array}{c}
\text{cont} \\
\text{son}
\end{array} \right\} \quad C2 /s/ = \left\{ \begin{array}{c}
\text{cont} \\
\text{son}
\end{array} \right\} \]

**Word-Final**

d'arb ‘beating’ ضَرِب

\[ C1 /l/ = \left\{ \begin{array}{c}
\text{voice} \\
\text{cont}
\end{array} \right\} \quad C2 /b/ = \left\{ \begin{array}{c}
\text{son} \\
\text{cont}
\end{array} \right\} \]

'rafk ‘you understood it?’ عَرْفَك

\[ C1 /k/ = \left\{ \begin{array}{c}
\text{voice} \\
\text{cont}
\end{array} \right\} \quad C2 /s/ = \left\{ \begin{array}{c}
\text{son} \\
\text{cont}
\end{array} \right\} \]

fə'b ‘nation; people’ شَعُب

\[ C1 /l/ = \left\{ \begin{array}{c}
\text{son} \\
\text{cont}
\end{array} \right\} \quad C2 /b/ = \left\{ \begin{array}{c}
\text{son} \\
\text{cont}
\end{array} \right\} \]

**Consonant Sequences. Table of IV**
Consonant Sequences are a group of consonants come together without a vowel sound between them as in English ‘spin’; ‘skin’ and ‘steam’. As it is mentioned above that this phenomenon is not allowed to occur in Arabic, but it is there in IV which has only two consonant sequences, where initial, medial and final position can be occurred.

Pertinent to the table above, it’s found that IV clusters are rich in the second syllable and less in final syllable, whereas it shares only few sounds with the first syllable such as /t, o, s, j, dʰ, and n/. Further, most of the velarized clusters can be occurred with such sound together eg. The sound /h/ can be clustered with the whole velarized sounds. Moreover, the sound /n/ had major occurrence in IV clustered, whereas the semi-vowels /w/and /j/ had minor occurrence in IV cluster. Finally each sound can be geminated except /ʔ/ /h/ /ɾ and /b/.

### 2.5. Major Phonological Processes

#### 2.5.1. Anaptyxis

This term refers to the insertion of a vowel to break up an illegal consonant cluster, as in the common mispronunciation “tri-ath-a-lete.” This process (which is also called ‘epenthesis’), takes place when a speaker inserts a helping vowel in order to break up consonant clusters, namely the short vowel /i/. This anaptyctic vowel of
IV sometimes resembles the sound of the schwa of English to a certain extent. This process in IV is in harmony with MSA rules, i.e. in a combination of two words where consonants occupy the word-final position in the first word and the word-initial position in the next word. For example, if the words ئل-کئاب (the book) and ئل-ئاخذار (the green) are made into one phrase, schwa is realised in-between, i.e. ئل-کئاب-ئ-ئاخذار/.

However, anaptyxis is not always used to break up two-consonant clusters.

Note that word-initial examples can include geminate consonants:

tfadqal ‘Welcome’ تَفْضِيل

?ista?lim ‘(you, m.s.) ask’ إِسْتَعَلَم

Word-medial two-consonant clusters (-cc-), including geminates are also acceptable in IV:

Fa:ţma ‘Fatima’ فاطمة

?isma:m ‘Islam’ إِسْلَام

ruwwah ‘to go’ رَوْح

Additionally, word-final two-consonant clusters (-cc), including geminates, are found:

šidq ‘truth’ صَدِق

kabf ‘ram’ كَبْش

Three consonant clusters of several types are commonly found in IV. Only the first two types discussed below are broken by Anaptyxis, the others are not:
1) A cluster formed by a word ending with a single consonant precedes a word beginning with a double consonant or a two-consonant cluster. In this case, the following are some examples of interlexical Anaptyxis:

?intixa:b-a-?ar-r?i:s ‘the election of the president’

beit-a-?ad-duktu:r ‘the doctor’s house’

1) Anaptyxis also occurs with the attachment of the feminine dual suffix /ti:n/ to feminine singular words ending with the sequence CCV. These words end with the suffix /-a/ (the ta: marbu;ʈa; the bound ‘t’). This serves to break up a C1C2C3 sequence, thereby rendering it C1iC2C3. Moreover, we can find a vowel movement with the vowel of feminine marker /ih/. The sound /i/ moves from the second syllable to the first syllable after adding the suffix feminine marker, whereas the glottal stop /h/ is deleted. Examples:

qiblih ‘prayer axis’

xa:dmih ‘lady servant’

gam?ih ‘university’

The following formula summarises this process:

h → φ / _ +t

Three-consonant clusters are always prevented by anaptyxis in IV. If not for anaptyxis, such clusters would form crossword boundaries when a word ending with a geminate consonant or a two-consonant cluster
directly precedes another word starting with a geminate consonant or two-
consonant cluster.

ruwwahk- ?s-sjara  ‘I; you (m.s.) park the car to the house’

?arufl- ?al-mudi:r  ‘I knew the manager’

2.5.2. Assimilation

2.5.2.1. Progressive Assimilation

A) Assimilation of the sound /h/ into /t/.

This feature, which is optional, covers the /h/ of pronominal suffixes when
preceded by /t/:

beit  بيت  ‘house’ + hum  هم  ‘their’ (m.)  beittum

bint  بنت  ‘daughter’ + hum  هم  ‘your’ (m.)  binttum

The -h- to -t- Assimilation Rule

\[
\begin{align*}
h & \rightarrow t \quad /t+_
\end{align*}
\]

B) /k-/ Concurrent Assimilation and Anaptyxis

The following examples show that the processes of /t-/ assimilation and
anaptyxis can co-exist. In the examples.

?abşark  ‘saw’ + hum’them  هم  ?  bşarkkum  ‘I saw them’ (m.)

haluk  ‘solve’ + hi  ‘it’  halukki  ‘I/you (m.s.) solved it’
The h to k Assimilation Rule

\[ h \rightarrow k / k_+ \]

\[ (\text{-son}) \rightarrow (\text{-son}) \]

\[ (\text{+con}) \rightarrow (\text{-cont}) \]

2.5.2.2. Regressive Assimilation

Several types of regressive assimilation occur in IV.

A) Nasal Assimilation

When the voiced alveolar nasal /n/ directly precedes /b/, it usually becomes a voiced bilabial nasal /m/:

\[ ?\text{anba:} \rightarrow \text{?amba:} \rightarrow \text{?amba:} \]

\[ \text{‘news, news items’} \]

\[ \delta\text{amb} \rightarrow \delta\text{amb} \rightarrow \text{‘sin; misdeed’} \]

\[ n \rightarrow m / b \]

\[ (\text{+nasal}) \rightarrow (\text{-nasal}) \]

\[ (\text{+ant}) \rightarrow (\text{-ant}) \]

B) Assimilation of lateral occurring in the definite article /?al/.

In IV, the lateral segment as part of the definite article /?al/ (which precedes the words it modifiers), assimilates to, (or into), the following sound segments: /t/, /d/, /l/, /l/, /d/, /o/, /o/, /s/, /ʃ/, /ʂ/, /z/, /l/, /n/, and /r/. The phonological feature that all of these sounds share is [+coronal]. The term ‘coronal’ refers to interdental alveolar palatal points of articulation. Actually, it exists in MSA (and also IV) as ‘sun letters’ (\textit{huru:ʃ famsiyih} or \textit{solar letters}). Certain sounds assimilate the sound of \textit{la:m} /l/ in the
definite article. When a word begins with any of these sounds, /ʔal/ of the definite article is written, but the лaːm /l/ is not pronounced; instead it is assimilated into the first sound of the word and that sound is geminated. The ‘sun letters’ (or sounds) that assimilate the definite article are as follows:

<table>
<thead>
<tr>
<th>Definite</th>
<th>Indefinite</th>
<th>Definite</th>
<th>English gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ئا +</td>
<td>ئيگا:ر</td>
<td>ئتیگا:ر</td>
<td>‘the commerce’</td>
</tr>
<tr>
<td>ئا +</td>
<td>ئؤاذافا</td>
<td>ئاوؤاذافا</td>
<td>‘the culture’</td>
</tr>
<tr>
<td>ئا +</td>
<td>دیːن</td>
<td>ئاددیːن</td>
<td>‘the religion’</td>
</tr>
<tr>
<td>ئا +</td>
<td>ئادهاب</td>
<td>ئادووادهاب</td>
<td>‘the jewellery’</td>
</tr>
<tr>
<td>ئا +</td>
<td>راب</td>
<td>ئاراب</td>
<td>‘the Lord’</td>
</tr>
<tr>
<td>ئا +</td>
<td>ئازوهو:ر</td>
<td>ئآزوهو:ر</td>
<td>‘the flowers’</td>
</tr>
<tr>
<td>ئا +</td>
<td>ئافارمس</td>
<td>ئآفاوامس</td>
<td>‘the sun’</td>
</tr>
<tr>
<td>ئا +</td>
<td>ئاسوهو:ف</td>
<td>ئآاسوهو:ف</td>
<td>‘the wool’</td>
</tr>
<tr>
<td>ئا +</td>
<td>دبعل</td>
<td>ئادبسیل</td>
<td>‘the shadow’</td>
</tr>
<tr>
<td>ئا +</td>
<td>ئادقاقا</td>
<td>ئآداقاقا</td>
<td>‘the noise’</td>
</tr>
<tr>
<td>ئا +</td>
<td>ئاتری:ق</td>
<td>ئآاتری:ق</td>
<td>‘the road’</td>
</tr>
<tr>
<td>ئا +</td>
<td>دلیːن</td>
<td>ئادلیːن</td>
<td>‘the colour’</td>
</tr>
<tr>
<td>ئا +</td>
<td>نوːر</td>
<td>ئانوːر</td>
<td>‘the light’</td>
</tr>
</tbody>
</table>

**The Definite Article /ʔI/- Assimilation Rule**

\[
\begin{align*}
C & \rightarrow C/ _+C \\
\left( +\text{cor} \right) & \rightarrow \left( +\text{cor} \right) / \left( +\text{cor} \right)
\end{align*}
\]

C) Regressive coronal interdental alveolar
These sounds are /ʈ/, /s/, /ʃ/, /ʂ/, /d/, /t/, Ġ, /ɖ/, /z/, and can (but not always) assimilate regressively into preceding /t/ undergone syncope:

\[
\begin{align*}
t- +\dot{\text{d}}a:kir & \quad \rightarrow \quad \dot{\text{d}}\dot{\text{d}}a:kir \quad \text{‘to remember’} \\
t- +\text{s}\text{allaf} & \quad \rightarrow \quad \text{s}\text{allaf} \quad \text{‘to borrow’} \\
ti- +\text{ʃ}\text{awwiʃ} & \quad \rightarrow \quad ðð\text{awwiʃ} \quad \text{‘you; she jams the broadcast’} \\
ti- +\text{g}\text{ahhih} & \quad \rightarrow \quad ðð\text{ahhih} \quad \text{‘you; she corrects’} \\
ti- +\text{tu}:b & \quad \rightarrow \quad \text{tu}:b \quad \text{‘you (m.s.) repent’} \\
ti- +\text{d}\text{arris} & \quad \rightarrow \quad \text{dd}\text{arris} \quad \text{‘you teach’} \\
ti- +\text{ʃ}u:f & \quad \rightarrow \quad \text{ʃʃu:f} \quad \text{‘you see’} \\
ti- +\text{ga:wib} & \quad \rightarrow \quad \text{ggawib} \quad \text{‘you (m.s.) answer’}
\end{align*}
\]

The /t-/ Assimilation Rule
\[
\begin{align*}
t- & \quad \rightarrow \quad /C\ /C \\
[+\text{verbal prefix}] & \quad \rightarrow \quad C
\end{align*}
\]

\[
\begin{align*}
+\text{ant} \\
+\text{cor} \\
+\text{cons}
\end{align*}
\]

\textbf{2.5.3. Elision (Vowel Elision or Syncope)}

In IV, a verb ending with /-VC/, where /-V-/ is normally drops its /-V-/ when a vowel-initial suffix is added to it. McCarthy (2005) states that the closed vowel is elided when it occurs in word-initial position and preceded by a word ending with an open short syllable CV. This opinion is also supported by findings in Gairdner (1925) and Michell (1962/1978).

In the following examples of the imperfect form Two, Three Six and Seven verbs, when a suffix beginning with a vowel is attached, elision of the stem vowels,
/i-/ and /a-/ respectively, is shown to take place. Also notice that the second radical of the form Two and Five verbs degeminates in the process.

Form Two Verbs

\[
\begin{align*}
\text{ji₃awwir} + u: & \quad \text{ji₃awru}: \quad \text{‘they (m.) injure/hurt (someone)’} \\
\text{tidarris} + u: & \quad \text{tidasu}: \quad \text{‘you (p.) teach’} \\
\text{tisallaf} + u: & \quad \text{tisalfu}: \quad \text{‘you (p.) borrow’} \\
\text{jitwaʂʂaʈ} + u: & \quad \text{jitwasʈu}: \quad \text{‘they mediate’}
\end{align*}
\]

The stem vowel (-i-) of form Three and Seven verbs in the imperfect, and the stem vowel (-a-) of form Six and Seven verbs undergoes vowel elision with the attachment of a vowel-initial suffix.

Form Three

\[
\begin{align*}
\text{jiqa:bil} + u: & \quad \text{jiqa:blu}: \quad \text{‘they meet face-to-face’} \\
\text{tiha:ɖir} + u: & \quad \text{tiha:ɖru}: \quad \text{‘you (pl.) lecture’}
\end{align*}
\]

Form Six

\[
\begin{align*}
\text{jitwa:faq} + u: & \quad \text{jitwa:fqu}: \quad \text{‘two or more are in agreement’}
\end{align*}
\]
Form Seven

\[ \text{jit\textsuperscript{tira\textdegree}h} \ + \ u : \rightarrow \text{jit\textsuperscript{tir\textdegree}h} \ : \ \text{they are being injured‘} \]

\[
\begin{array}{c}
\text{+front} \\
\text{+cent} \\
\text{-rounded} \\
\text{+long} \\
\text{-final}
\end{array}
\rightarrow
\begin{array}{c}
\text{+front} \\
\text{+high} \\
\text{-rounded} \\
\text{+long} \\
\text{+final}
\end{array}
\]

(Archangeli 1981)

\[ V \rightarrow \varnothing/\text{CC } \_ \space C + V \]

\[
\begin{cases}
\text{-long} \\
\alpha\text{F} \\
\beta\text{F} \\
\gamma\text{F} \\
\text{+h} \\
\text{-f}
\end{cases}
\]

2.5.4. Deletion

Brame (1970) and McCarthy (1979b) argue that the /h/ in MSA shows up overtly if a dative suffix follows the third person masculine singular object suffix, e.g. the /h/ in \textit{rama+hu+lah\textdegree}a ‘he threw it (m.) to her’. They argue that this morpheme is subject to metathesis rule. I assume that the /h/ sound is deleted in IV in this case. Here are some examples:

\begin{align*}
\text{ragam+uh+l\textdegree}h & \quad \text{‘he threw it to her’} & \text{ragam+u+l\textdegree}h \\
?\text{arsl+uh+lah\textdegree}um & \quad \text{‘he sent it to them’} & ?\text{arsl+u+lah\textdegree}um
\end{align*}

\[ h \rightarrow 0 \ / \ [+\text{suffix}]w \quad w = \text{word}^{10} \]
### Distinctive Feature Matrix for Ibb Variety Consonant Phoneme

**Table : Distinctive Feature Matrix for Ibb Variety Consonant Phoneme**

2.6. **Types of Syllables**

Classified according to their length, there are short, medium and long syllables in IV:

1. A short syllable is composed of a consonant followed by a short vowel, in the form CV. Under most circumstances, there appears to be a phonological constraint against the sequence CVCVCV. The exception to this constraint applies to certain (naːsiba) relative and attributive adjectives,¹¹ which may originally have been borrowed from LA, and singular nouns with the sequence CVCVCV to which the first possessive suffix /-i/ has been attached.
2. Medium syllables are composed either of a consonant followed by a short vowel preceding a consonant (CVC) or a consonant cluster followed by a short vowel (C1C2V).

3. Several structural patterns characterize the IV long syllables, including: CVV, CVVC, CVCC (or CVC1C2), CCVC (or C1C2VC), CCVVC (or C1C2VVC), and CCVV (or C1C2 VV).

With regard to word stress in MSA and its varieties, this area is one of the debatable issues. While certain studies have claimed that stress does exist in Arabic, others negate the whole claim. Below is a short outline of some of these views. Basically, stress can be defined in simple terms as the extra prominence attached to a specific syllable in a word when that word is pronounced. Kager (2007: 196-9) recognises four features of stress. In ‘culminative stress’, there is one and only one maximally prominent peak within a stress domain, especially with reference to content words (i.e. as opposed to function words such as articles, pronouns and prepositions, which normally are not stressed). While in culminative stress the function of a stressed syllable is to point for “intonational contours”, in ‘demarcative stress’ the function is to signal the beginning and/or end of morphological boundaries. The third feature of stress consists in the preference of stress languages for well-formed rhythmic patterns, where sound and weak syllables are spaced apart at regular intervals. The fourth feature of stress is a matter of quantity-sensitivity, i.e. Stress prefers to lodge on syllables which have a certain degree of intrinsic prominence, carry a high tone, or contain a vowel of high sonority.

Linguists normally differentiate between stress, tone and intonation. Tone, in the context of linguistics, is a property of certain languages in which the pitch of the
word can change the meaning of the word – not just its nuances, but its core meaning (Yip 2007: 229). Kager (ibid.: 195) maintains that stress is clearly different from tone in the sense that stress does not assimilate, neither locally between adjacent syllables, nor across longer distances. Finally, “Intonation refers to the structured variation in pitch which is not determined by lexical distinctions” (Gussenhoven 2007: 253), hence affecting the melodic and prosodic structure of a language.

“Cross-linguistically”, maintains Kager (ibid.: 196), “stress tends to be attracted to syllables located near the edges of grammatical units, especially the initial syllable. Since final syllables are exempted from stress in many languages, initial and prefinal syllables are, by far, the most favoured locations of stress, followed by stress on the second and final syllable.” McCarthy’s (1979: 443) view on stress and syllabification is based on three premises. First, in many languages the notion “heavy syllable” invokes a disjunction of syllables containing a long vowel or diphthong and syllables with a short vowel but closed by a consonant. Second, though heavy syllables often attract the stress, they sometimes reject it or attract it subject to some limitations of, say, distance from a boundary. Third, the weight of some syllables may itself vary in a particular language, perhaps again under some boundary conditions.

McCarthy (ibid.: 445-6) assumes that Classical Arabic, like many other languages, attracts stress onto a heavy syllable regardless of the remoteness of a boundary. Citing Harrell (1957), McCarthy refers to Cairene Arabic and supports three principal stress rules for this dialect, along with a few morphological exceptions:

a. Stress the ultima if it is a superheavy syllable (CVCC or CVVC):

   *katábr*I wrote’, *sakakín*knives’
b. Otherwise stress the antepenultimate syllable if the antepenult and penult are light syllables (CV), unless the preantepenult is also light:

*búxala*‘misers’, *muxtálifa*‘different (f. sg.)’

c. Otherwise stress the penultimate syllable:

*martába*‘mattress’, *Tamálti*‘you (f. sing.) did’, *béetak*‘your (m. sing.) house’,

*katabítu*‘she wrote it (m.)’

McCarthy (2005: 9), thus, indicates that the Cairene stress system assigns moraic trochees from left to right.

McCarthy is not the only one to attach great significance to the role of stress in Arabic in general and its varieties in particular, although his application of the theoretical assumptions is based on the idea that since there is no pandialectal tradition for stressing Classical Arabic, in many regions the colloquial stress rule is applied to Classical Arabic forms (1975: 446). Ryding (2005: 36-37) suggests that stress in Classical Arabic depends on the length of the word. According to him, stress never comes on the final syllable, but normally on the penultimate syllable if that syllable is strong (CVC or CVV), and on the antepenultimate if the second syllable from the end of the word is weak.

In harmony with this line of reasoning, Watson (2002/2007) discusses stress in Arabic with specific reference to Cairene and Sanani varieties of Arabic. She (ibid.: 79) even claims that“Arabic is a language with word stress” and that while in words of more than two syllables in Sanani (optionally also in words of two syllables where the leftmost syllable is heavy and the rightmost syllable superheavy) one or more of the remaining syllables receives secondary stress, secondary stress is not perceived in
Cairene. Halpern (2009) indicates that word stress in both Modern Standard Arabic (MSA) and the dialects is non-phonemic and sets rules for stress and vowel neutralisation in Arabic as follows:

1. If the last syllable is superheavy, it is stressed.
2. If not, stress the penultimate if it is heavy or if the word is disyllabic.
3. Otherwise, stress the antepenultimate.

As for the neutralisation rules, he sets the following rules:

1. Neutralize long vowels except for the one nearest the end.
2. Never neutralize stressed vowels.
3. Almost always neutralize final long vowels.

Apparently, all these arguments considered the pronunciation of Arabic, whether MSA or its varieties, from the point of view of a linguist who is a non-native speaker of Arabic. That is to say, most of these studies investigated the phonology of Arabic with presumptions generated either by the rules and ideas they have acquired through their study of linguistics or by trying to draw similarities between their mother-tongues (mostly English) and the way they ‘hear’ Arabic (both MSA and its varieties) pronounced. While English is a highly ‘stressed’ language, MSA in fact is not: Ferguson (1956: 384-5) aptly indicates that Classical Arabic has “no word stress at all, either phonologically significant or automatic as a function of the syllabic structure of the word”. MSA gives equal prominence to all syllables of a word. In terms of pronunciation, there is no difference in prominence between syllables in a content word or a function word. Of course, syllabification is an inherent process in Arabic phonology, where diacritics (represented phonetically by short vowel sounds)
play a major part, given the widely accepted fact that MSA does not allow the occurrence of two adjacent ‘motionless’ consonant sounds.

Regarding the relationship between stress and varieties of Arabic, the majority of these varieties do not attach great importance to stress either, and even if certain varieties (e.g. in Egypt or Hijaz or the North African countries) show what may be perceived by non-native speakers as stress, it is safe to claim that no two words in MSA or its various varieties are differentiated on the basis of stress. Differences between varieties lie in terms of tonality even when speakers of different varieties use MSA in the spoken mood; however, this difference in tone does not entail difference in meaning. Perhaps, it is for this reason that Arab grammarians did not discuss stress in their studies.\textsuperscript{12} IV, as most of the other varieties of Arabic, does not show any evidence that stress can be found to differentiate between words on the phonemic level. This variety does, however, have its prosodic means which are manifest in terms of intonation and pitch. All syllables in an IV word, be it monosyllabic, disyllabic or polysyllabic, receive equal prominence by speakers and the melodic effects are realised in terms of intonation and pitch.

2.7. Summary

To sum up, this chapter has presented a descriptive study of the phonological phenomena in IV. It has documented various aspects of native comparison with LA and English. Pertinent to IV consonantal phonemes, it has been demonstrated that there are twenty eight consonantal phonemes distributed across nine places of articulation; nineteen of them exist in English, whereas the rest do not. Four of them are called ‘velarised’ (ʂ, ŋ, d, dʰ). This chapter has pointed out that the phonemes /ʂ/ and /ɛ/ exist in IV while they are present as allophones – at least similar to a great
extent – in some languages such as English as in the words ‘son’ and ‘sun’ and ‘tall’ and ‘tub’, respectively. Further, each consonant is described by the phonological distinctive features.

With regard to vowels, these sounds are classified into two types: short and long. Besides, it has been indicated that long vowels only occur in word-medial positions in IV. Further, it’s worth mentioning here that all consonants (except h, š and ?) can be doubled in all positions with certain exceptions. The glottal stop /ʔ/ is normally not doubled in any position and the sounds /h/ and /ʔ/ are not doubled in word-final position. Finally, it has been observed that IV is subjected to and is affected by the phonological processes of anaptyxes, assimilation (progressive and regressive) and elision.
Endnotes:

1 The order of the sounds discussed here has been made to follow the Arabic alphabetical order. Besides, gemination is also made explicit in transcription instead of *fadda* symbol (ﱢ).

2 This point has several implications and repercussions with regard to learning English by IV speakers. Generally, Ibbi learners of English find it difficult to differentiate between the sounds /g/ and /ʤ/, especially at the initial stages of L2 learning.

3 The nature of the pharyngeal consonants /h/ and /ʕ/ is described in detail in McCarus and Rammuny (1974, 124–34) and in Gairdner (1925, 27–29).

4 Although in Standard Arabic, there should be a short vowel sound to separate the consonant /h/ from a subsequent consonant, IV, (as do some other varieties) allow for such cases as /sahl/, particularly in the final position, coda position.

5 The definite article *al-* in MSA, as well as in IV, is prefixed to nouns and adjectives. It has two pronunciations depending on the first sound of the word it is attached to. The ‘lunar’ definite *al-* is pronounced as /ʔl/ and is attached to words beginning with eighteen sounds, fifteen consonants including the glottal stop, and the three semi-vowels (? , i.e. b, h, x, ṣ, k, q, l, m, n, h, w, and j), whereas the ‘solar’ definite article *al-* is pronounced as /ʔ/ with geminating the next consonant sound (i.e. t, ɾ, d, ṭ, ḍ, r, z, s, ʃ, ʂ, ɬ, and ɖ). They are termed as lunar and solar owing to their different pronunciation when attached to the Arabic words *qamar* (‘moon’) and *ʃams* (i.e. ‘sun’).

6 The bound ‘t’ is normally pronounced as /h/ in Standard Arabic and as /a/ in IV if not followed by another sound.

7 All these examples using the 2nd person masculine singular pronoun are statements, not in the imperative form.

8 Verbs and their classifications are discussed in Chapter Three.

9 This is dealt with in some detail later in Chapter Three.

10 This rule is taken from McCarthy 1976 a Doctoral dissertation.

11 For more details see Chapter Five Morphology of adjective *naːsiba* adjective.

12 cf. Watson 2002/2007: 79. She says in a footnote: “Although the classical Arab grammarians do not mention word stress, it is generally accepted that Classical Arabic had it”.