

Arabic Vowels and Vocoids Their Characteristics and Distribution

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Basic Assumptions

Two basic assumptions must be made at the outset of this paper. The first assumption is that Arabic vowels¹ and vocoids² are those sounds which, as a group, are produced with the least amount of friction and/or constriction. The second assumption is that velarization in Arabic phonology is phonemic with respect to the consonants, but phonetic (allophonic) with respect to the vowels.

Characteristics of Vowels and Vocoids

The Arabic vowels³ are six in number. No glides are included in these vowels. Three of them, however, are geminates (clusters) of the same vowel. In addition to the six vowels, there are two diphthongs (combinations of different vowels). The major vocoids are seventeen in number.

<i>Vowels</i>	<i>Vocoids</i>	<i>Characteristics and examples</i>
/ii/	[ii]	High front close unrounded. /fiil/ [fiil] "elephant".
	[iī]	High back close unrounded. /Siin/ ⁴ [Siīn] "China".
/i/	[i]	High front open unrounded. /min/ [min] "from".
	[i̤]	High back open unrounded. /Sif/ [Sif] "describe" (imp.).

¹ Phonemic term.

² Phonetic term.

³ These vowels occur in most Literary Arabic dialects, although their distribution in lexical items may be different. Some colloquial dialects have eight or nine vowels.

⁴ Capitals indicate velarization.

<i>Vowels</i>	<i>Vocoids</i>	<i>Characteristics and examples</i>
	[ɛ]	Mid front open unrounded. /bilmadrasati/ [bilmædræsæti(ɛ)] "in the school".
	[ɛ̃]	Mid back open unrounded. /biSSiini/ [biSSiini(ɛ̃)] "in Chinese".
/aa/	[ææ]	Low front close unrounded. /laa/ [lææ] "no".
	[aa]	Low central open unrounded. /SaaRa/ [SaaRə] "he became".
/a/	[æ]	Low front close unrounded. /lam/ [læm] "not".
	[ə]	Mid central close unrounded. /Saffun/ [Səffun] "class".
/uu/	[uu]	High back close rounded. /suuqun/ [suuqun] "market".
/u/	[u]	High back open rounded. /huna/ [hunæ] "here".
	[o]	Mid back close rounded. /lahu/ [læhu(o)] "for him".
/ai/	[æi]	Combination of [æ] and [i]. /baitun/ [bæitun] "house".
	[əi]	Combination of [ə] and [i]. /baiDun/ [bæiDun] "eggs".
/au/	[æu]	Combination of [æ] and [u]. /lau/ [læu] "if".
	[əu]	Combination of [ə] and [u]. Dauʔun/ [Dəuʔun] "light".

Distribution of Vowels and Vocoids

No vowel occurs in word initial position; if no other consonant is found preceding the first vowel, the glottal stop /ʔ/ will occur there. The distribution of the vowels and vocoids in medial and final positions is given below:

<i>Vowels</i>	<i>Vocoids</i>	<i>Distribution</i>
/ii/	[ii], [ĩi]	These vocoids occur in complementary distribution, [ĩi] appearing

<i>Vowels</i>	<i>Vocoids</i>	<i>Distribution</i>
		contiguous to velarized consonants and [ii] appearing elsewhere.
/i/	[i], [ĩ]	These vocoids occur in complementary distribution, [i] appearing contiguous to velarized consonants and [ĩ] appearing elsewhere.
	[ɛ], [ɛ̃]	These vocoids occur in free variation with [i] and [ĩ] respectively in final positions only.
/aa/	[ææ], [aa]	These vocoids occur in complementary distribution, [aa] appearing contiguous to velarized consonants and [ææ] appearing elsewhere.
/a/	[æ], [ə]	These vocoids occur in complementary distribution, [ə] appearing contiguous to velarized consonants and [æ] appearing elsewhere.
/uu/	[uu]	This vocoid occurs in all medial and final positions.
/u/	[u], [o]	[u] occurs in all medial and final positions; [o] occurs in free variation with [u] in final positions only.
/ai/	[æi], [əi]	These vocoids occur in complementary distribution, [əi] appearing contiguous to velarized consonants and [æi] appearing elsewhere.
/au/	[æu], [əu]	These vocoids occur in complementary distribution, [əu] appearing contiguous to velarized consonants and [æu] appearing elsewhere.

Conclusion

The characteristics and distribution of Arabic vowels and vocoids are illustrative of the realization of the phoneme. An understanding of the phoneme and the way it functions in language will aid analysts in the understanding of Arabic vowels and vocoids.

Also, conversely, the understanding of Arabic vowels and vocoids and their distribution will reveal the significance of the phoneme as the most basic functional unit in language.

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