

THE PHONETIC OF IBN DURAYD

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ABSTRACT

Arabic sources since the eighth century have provided treatises on the phonetics of Arabic. Ibn Durayd, in the process of composing his lexicon of Arabic pre-pended the lexicon with a treatise on the phonetics of Arabic. In it he classified the sounds of Arabic according to three types of articulatory criteria that yield multiple sets of features, and which in turn distinguish each letter, and group different letters into distinct subgroups.

IBN DURAYD

Ibn Durayd (223-321H/ 838-933A.D.) [1] is an Arab essayist, poet, lexicographer and linguist. He was born in Basrah, Iraq (223/838), grew up in Oman and died in Baghdad in (321/933). Among his many teachers are listed nineteen prominent savants of his time, and among his students are listed forty five influential thinkers who shaped the development of Arabic studies. His biography is related in thirty seven biographical and historical records. Of his works eight have been published, and nineteen others have been mentioned in the sources, though not yet published.

INFLUENCES

Even though Ibn Duryad was an independent innovator and thinker, in composing his own lexicon he refers specifically to the book of Al-Khalil (101-175/719-791) [2] who had provided the first model for the study of the science of lexicography and the science of Arabic phonetics. Ibn Duryad would re-arrange the lexical entries of

the Arabic lexicon according to a new organizational principle. He grouped together all the lexical items that shared the same number of radicals, i.e. all the bi-radicals together, all the tri-radicals together, etc. He made other innovations into which we can enter here. In addition, he pre-pended to this massive undertaking an introduction that included a treatise on phonetics explaining the sounds of Arabic, just as Al-Khalil had done with his Kitāb Al-Ṭayn, the first Arabic Dictionary.

PHONETICS

The treatise on phonetics of Ibn Durayd keeps alive the tradition of explaining to the user of the dictionary the basic elements i.e. the letters, of the lexical items, the arrangement of the lexical items, and the manner in which the letters are produced. What is of interest in this treatise on phonetics, is not only that it maintains the tradition of Al-Khalil, but it has new groupings and new terminology that is not found in Al-Khalil. However, the arrangements that the author discussed, had only limited lexicographical function, since he ignored the phonetic order of the letters and reverted to the traditional order of the letters in his dictionary. One can only conclude that this was a mere courtesy by the new author to the first lexicographer by keeping the tradition alive. The author stated that he was aware of the work of other linguists, but he was explaining the phonetics of the language in his own way for the benefit of the user of the dictionary.

MUṢMATAH & MUḌLAQAḤ

The first task of the user is to know the letters of the dictionary, since they are the poles around which the words are constructed. Hence the reader must know their exits (maxāriḡ), their progressive stages (madāriḡ), their remoteness from each other (tabṣāud), their closeness (taqārub) to each other and what may or may not co-occur (taṭāluḡ) with each other, and the

reasons for such allowance or disallowance. According to Ibn Durayd, the letters of Arabic are of seven types that are grouped under two major headings: Twenty two letters are /muṣmatah/ 'silent', three of which are weak, and nineteen are strong; the other six letters are /muḡlaqaḡ/ 'edge letters'. They are schematically arranged in the following Chart I:

Class	type	letter
/muṣmatah/ 'silent'	1. throat	ʔ, h, ḥ, ʕ, ʔ, x - خ, ح, هـ, ا, ع, غ, هـ
	2. lowest part of the tongue	q, k, g, ʒ - ق, ك, ج, ج, ج
	3. tongue	s, z, ṣ - س, ز, ص
	4. middle of the tongue	t, ṭ, d - ط, ت, د
	5. nearest in the mouth nearest upper concavity	ḏ, ṯ, ḏ, ḏ - ذ, ظ, ذ, ذ
/muḡlaqaḡ/ 'edge'	6. labial	f, b, m - ف, ب, م
	7. tip of tongue	r, n, l - ر, ن, ل

Chart I: First Binary classification of the letters of Arabic

Even though the above chart is binarily conceived, it parallels the classification of Al-Khalil in dividing the vocal tract into eight subdivisions except that 2 & 3 subdivisions are a conflation of three locales in Al-Khalil, Sara [3]. While Al-Khalil emphasized the divisions of the upper perimeter of the vocal tract, Ibn Duryad's emphasis was more on the active articulator, the tongue, and the lower perimeter of the vocal tract.

EXITS

For Arab linguists, the term /maxrag/ 'exit' is a description of the narrowing of the vocal tract. It corresponds, in a broad sense, to the 'point of articulation' in our current use. Each segment or group of segments were characterized by their appropriate 'exit'. The following is Ibn Durayd's classification of the letters of Arabic according to sixteen exits as in chart II:

Cavity	Exit	letter
THROAT	1. Lower part	h, ʔ, A-ء, ه, ا
	2. Middle part	ع, ح, ه - ع, ح
	3. Upper part	خ, خ - ع, ح
M	4. Farthest	q, k- ق, ك
O	5. Uvula	g, ʃ - ج, ش
	6. middle of tongue	y - ي
U	7. side of tongue/upper incisors	s, z, ʃ, - س, ز, ش
	8. right edge of tongue	n - ن
T	9. Right edge close to /n/	l - ل
	10. Close to /n/ but inner	r - ر
H	11. Edge of tongue, base of incisors	t, d, ʔ - ط, د, ت
	12. Inner lower lip	f - ف
	13. between the lips	w, b, m - و, ب, م
	14. light /n/	n - ن
	15. Edge of tongue/edge of incisors	ḏ, θ, ð, - ذ, ث, ظ
	16. Middle of the tongue/ right edge	ḏ - ض

Chart II: Classification of the letters according to exit

The above Chart with its sixteen exits reflects the organization of Sībawayh in his treatment of Arabic sounds [4]. Sībawayh had arranged his sounds according to 16 exists. There are to be sure points of difference, but the general organization is similar. To be noticed again, Ibn Durayd's emphasis on the tongue and the lower perimeter of the oral cavity, while Sībawayh gave equal recognition to the palate and the upper perimeter of the cavity.

FEATURES

There is yet another classification that the Ibn Durayd provides when discussing the letters of Arabic. He noticed that though the letters may have different exits, they still may have features in common. 'Soft' letters may be found in the throat region or the mouth region. Consequently he regrouped the letters according to these common features as in chart III.

Feature	Letters
Mahmūs 'muted'	h, ḥ, k, x, s, ʃ, θ, ʂ, t, f
Maghūr 'loud'	ʔ, A, ʃ, ʕ, q, g, y, ḏ, l, n, r, z, d, ð, ʔ, ḏ, b, w, m
Rixwah 'soft'	h, ḥ, k, x, s, ʃ, ʕ, ʕ, ʂ, ḏ, ḏ, θ, f, z
Madd& Layn 'length'	w, y, A
Muṣbaqah 'covered'	ʂ, ʔ, ḏ, ḏ
Shadīdah 'tight'	ʔ, ʃ, g, etc [ʔ, q, k, l, r, n, d, b, m].

Chart III. Classification of the letters according to features

Several comments are in order when one reflects on the above chart of features. The features are identical with those found in Sībawayh, even though not all the features of Sībawayh are accounted for. There are also variations in the selection of letters that share the same feature. First the sequencing of letters is not identical in the two sets, even though the letters are the same. For the feature Shadīdah 'tight' he did not list all the letters, but only a sample of three. The balance of letters that share this feature is supplied here from Sībawayh and included between []. There are, however, two significant deviation in the above organization: first /k/ is included with the Rixwah 'soft'. This is completely contrary to the features of this letter. As one notices that all the letters under this feature are of continuant type, and they have been so classified by the other linguists of the time. In a similar manner, he grouped /ʃ/ with the Shadīdah 'tight'. The subgroup of letters that are listed as Shadīdah are all of closure type. By putting /ʃ/ with Shadīdah it effectively puts it with both Rixwah and Shadīdah, i.e. 'continuant' and 'interrupted' types. Since he did not list all the letters that share this feature, and what is supplied above is from Sībawayh, whom he seems to follow so closely, this classification is again out of character. It is not easily explainable why /k/ and /ʃ/ are grouped under these features, i.e. out of their natural classes. We have no reasonable explanation at this time except to say that this may

have been an error due to the nature of the composition of the dictionary, which was dictated by the author. Needless to say Ibn Durayd did not employ all the features that were available to him, and were readily available in the literature. One can only conclude that he was doing this by way of example, and that he was not necessarily giving an exhaustive listing of all the phonetic/phonological lore of his time. Even with this brief outline of the sound system of Arabic, he was able to point reasons why certain letters do not co-occur within the same word, and why some regional dialects substitute one letter or sound for another in their speech due to the proximity and the articulatory congruity of the confused or substituted letters. There is a great deal in this treatise that is of historical and linguistic value.

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