

## ROOT-DICTIONARY OR ALPHABETICAL DICTIONARY A METHODOLOGICAL DILEMMA

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Most of the so-called classical Arabic dictionaries and a large number of the modern dictionaries, lexicons, vocabularies, glossaries and wordlists of contemporary Arabic, both literary and colloquial, are arranged according to the alphabetical order of the Arabic root. This method of composition, which is also traditionally common to most of the dictionaries of the Semitic languages, has emerged in order to demonstrate the relationship between the various derivatives based on the same root. Needless to say that this method, in spite of its obvious advantages and great importance, in that it helps the student to understand the dynamics of the language, causes great headache and frustration to the learner of Arabic, who, before looking up a word in the dictionary, must have a good command of the Arabic verb system and the noun, adjective, adverb and particle patterns, in order to 'strip' the tri-radical root off its prefixes, infixes and suffixes, and only then look up the word in the dictionary. On the other hand, the arrangement of the entries by alphabetical order of the words 'separates' between words, which are morphologically and semantically associated, thus 'annulling' one of the most significant characteristics of the Semitic family in general.

Lexicographers have always been faced by the dilemma which method is preferable, and although the various methods developed by Arabic lexicographers over the years have reached a high degree of sophistication, the student of Arabic is still encountering many problems in his search of a sense.

This paper attempts to examine the various methods employed, across history, assess their success or failure and broach the question whether or not there is any satisfactory solution to the problems created by the structure of the Arabic lexicon.

A cursory inspection of the various Arabic dictionaries, which began to appear during the first century after the advent of Islam and have continued incessantly to the present day, proves that Arab lexicographers have always been aware of the problems connected with the compilation of Arabic dictionaries. Hence, the strenuous efforts made, over the years, by Arab lexicographers, who have endeavoured, on the one hand, to satisfy a special need, and on the other hand, to offer the user new or improved methods for looking up words in a way which seemed, pedagogically speaking, more appropriate and more logical to the authors. However, it should be borne in mind that not all lexicographers were motivated by pedagogical considerations, since some of the classical works, as will be demonstrated below, showed no sensitivity to the student's needs.

The main objectives for the compilation of the early lexicographical works were to record and discuss rare words (*al-ġarīb*), which at a later stage developed into fully-fledged dictionaries, in which all words, current and rare, were included, with the exception of colloquialisms, which were ignored by the lexicographers, since their existence 'contaminated' the purity of *fushā*. Moreover, similar to the motives behind the early grammatical works, dictionaries too were composed in order to ensure a better reading and understanding of the vocabularies of the *Holy Qur'ān* and the *Hadīth* literature as well as Arabic poetry, which have always been the object of admiration and pride for the Arabs.

However, the religious factor, which had prompted early Arab lexicographers to compile the first Arabic dictionaries, had soon extended beyond this necessity, to meet the need for the preservation of the linguistic treasures of the Arabic language at large. The dictionaries that followed included therefore words and usages which were not necessarily from the religious milieu.

The various classical dictionaries may be divided according to the periods of their composition, their 'type' or their structure. According to 'Adnān al-Ḥaṭīb (1967:1-3), a dozen glossaries approximately were composed during the second century of the Muslim era; about 90 works saw the light during the third century; some 65 appeared during the

fourth century; about a dozen during the fifth century; some 25 works during the sixth century; 13 in the seventh century; four during the eighth century; seven during the ninth century; four during the tenth century; two during the eleventh century and three during the twelfth century.

Although al-Ḥaṭīb's division is very general indeed, since it only records the most important works, it can still give us an idea about the trends and tendencies of Arabic lexicography, and the extent of sophistication it had reached. To this one may add that the interest in Arabic lexicography has never ceased, and in fact it has developed, since the 19th century, into a prosperous industry.

So far as the 'types' of dictionaries are concerned, classical works may be divided into five categories:

1. Dictionaries devoted to special subjects, e.g. human beings, the camel, the horse etc. For instance: Ibn al-Aʿrābī (8 c.), *Kitāb ḥalq al-insān* and *Kitāb al-ḥayl*. Abū Ḥayra (8 c.), *Kitāb al-ḥaṣārāt*.
2. Dictionaries covering certain corpora, e.g. *Qurʾān* and *Hadīṭ*. For instance: Yūnus b. Ḥabīb (8 c.), *Maʿānī l-Qurʾān* and Abū Ḥasan an-Naḍr b. Šumayl (8-9 c.), *Garīb al-ḥadīṭ*.
3. Dictionaries or monographs which emphasized the correct usages against 'deplorable' abusages, i.e. *faṣāḥa* versus *lahn al-ʿamma*. For example: al-Farrāʾ and al-Kisāʾī (8-9 c.), *Mā talḥanu fihi l-ʿamma*.
4. Dictionaries of uncommon words (*an-nawādir*). For instance: Abū ʿAmr (7-8 c.), *Kitāb an-nawādir* and Ibn al-Aʿrābī (8 c.), *an-Nawādir*.
5. Thesauruses. For example Ibn Sīda (11 c.), *al-Muḥaṣṣaṣ* and at-Taʿālibī (10-11 c.), *Fiqh al-luḡa*.

However, it was only when al-Ḥalīl b. Aḥmad (718-786) compiled his *Kitāb al-ʿayn* that Arabic lexicography made its real debut. Nevertheless, the comprehensive dictionaries, which began to appear ever since

*Kitāb al-ʿayn* to the present, have not put an end to other types of dictionaries, particularly those devoted to specific subjects or areas, which have continued to see the light incessantly, setting new records in our present time. So far as the internal organisation is concerned, classical lexicographical works were arranged according to different internal orders. The commonest system since *Kitāb al-ʿayn* was, of course, by alphabetical order of the root. However, other methods were pursued. For example:

- a. Morphological patterns. E.g. *al-Faṣīḥ* by Taʿlab (9 c.) and *Iṣlāḥ al-manṭiq* by Ibn as-Sikkīt (9 c.).
- b. Order of the Qurʾānic *sūras*. E.g. *Garīb al-Qurʾān* by Ibn Qutayba (9 c.).
- c. Order of *rāwīs* of the *Hadīth*. E.g. *Tafsīr garīb mā fī aṣ-Ṣaḥīḥayn* by al-Ḥumaydī (11 c.).

The alphabetical order of the root which, as claimed, was pursued by most dictionaries since *Kitāb al-ʿayn* can be divided into three main categories:

1. Phonetic order.
2. Alphabetical order according to the last letter of the root.
3. Alphabetical order according to the first letter of the root.

The phonetic order used by al-Ḥalīl in *Kitāb al-ʿayn* was based on the place or point of articulation (*mahāriḡ al-ḥurūf*). Hence, the order followed was ‘*ḥ b ḥ ġ q k ġ š ḍ ṣ z ṭ t d z ḍ ṭ r l n f b m w y alif*’. This original order, in spite of its inconvenience, was a revolutionary development in the lexicographical conception of Arab scholarship. Not only has it recognised, for the first time, the existence of the stem of Arabic words (i.e. the three radicals), emphasizing the common denominator of a large number of derivatives, but it also demonstrated the possible / impossible links between certain sounds. That is to say, which combinations of consonants cannot co-exist in a word. For example, ‘*ḥ* and ‘*h*’ about which we are told by al-Ḥalīl (*K. al-ʿayn*, 10): *al-ʿayn lā taʿtalifu māʿa l-ḥāʾ fī kalīma wāḥida li-qurb mahraḡayhimā* “cannot enter any combination with *ḥ* in a word because of the closeness of their point of articulation”. Moreover, in an attempt to achieve

comprehension al-Ḥalīl notes all roots which are obtained by permutation referring to those without meaning as *muhmal*.

Ostensibly, the system developed by al-Ḥalīl is as clear as daylight. However, the user who attempts to look up words in this dictionary may find himself spending more time memorizing the phonetic alphabet used in *Kitāb al-ʿayn*. It is noteworthy that al-Ḥalīl's system gained more fame than currency, since only few classical lexicographers had adopted it, like al-Azharī (10 c.), *Tabḍīb al-luġa*; al-Qālī (10 c.), *al-Kitāb al-bārī* and Ibn Sīda, *al-Muḥkam*. The reason for its relatively little popularity is probably because of the inconvenience in using this work and the fact that al-Ḥalīl's famous student, Sibawayhi, suggested a modified system which won more popularity in the Baṣran School (Naṣṣār, 1968 I, 238.).

The alphabetical order, according to the last radical, which is used by al-Ġawharī (10-11 c) in *aṣ-Ṣiḥāb*, Ibn Manẓūr (14 c.) in *Lisān al-ʿArab*, al-Fīrūzābādī (15 c.) in *al-Qāmūs al-muḥīṭ*, az-Zabīdī (18 c.) in *Tāġ al-ʿarūs* and others, was developed, as it is well known, to help poets and writers of rhymed prose (*saġʿ*) to easily find words which could rhyme. Ironically, these bulky works have never, in actual fact, been rhyming dictionaries, as known to us from other languages, but only a tool to indicate all roots ending in a certain letter. Rhyming was left to the skilful poet. Incidentally, rhyming dictionaries had been compiled long before the Arabs by Indian lexicographers, and it is quite plausible that similar to their adoption of some Indian grammatical methods, Arab scholars had learned from the Indians, most probably via Persian scholarship, some of their lexicographical skills.

The normal alphabetical order of the root i.e. by the first followed by the second and the third radicals employed by many of the medieval Arab lexicographers, and in particular in the 19th and 20th centuries, have proved the impracticality of all previous methods. Nevertheless, this method too, although more logical, has not, as claimed above, solved the problems of the student of Arabic.

To complete this brief survey, one should mention in passing other original attempts such as: Abū l-Qūṭīyya (10 c.) who arranged his dic-

tionary according to the similarity of the shape of the letters e.g. *b t ṭ*; ʿAlī b. Dāwūd (10 c.), as-Siġistānī (9-10 c.) and Ibn Durayd in his book *al-Maqṣūr wa-l-mamdūd* who all had taken into consideration the various vowels which affect the patterns of the words, without changing their meanings, and a number of earlier wordlists and the dictionary called *Kitāb al-Ġīm* by aš-Šaybānī (9 c.) who, although following the normal alphabetical order of the root, have taken into account only the first letter of the root but followed no consistent order afterwards.

Lothar Kopf who discusses at length the problem of the lack of an internal system in most of the medieval dictionaries, arrives at the conclusion that in the case of the early wordlists there was no need for an internal system owing to their limited scope. The lack of a clear system, in the case of *Kitāb al-ʿayn* and other contemporary works was due to the lack of experience on the part of the authors, whereas later works were more keen on the inclusion of a maximal quantity of entries and citations (*šarwāhid*) rather than being bothered about the internal order of the entries (Kopf 1976:132). This shortcoming is of course less noticed in the case of short entries, but is becoming more problematic in the case of long entries, which contain under the same root all its derivations and their various meanings and usages, including polysemes and homonyms, in addition to a large number of *šarwāhid*. Consequently, one should often take the trouble to read whole paragraphs and even pages before the required meaning could be found.

Finally, it is worthwhile mentioning that in some works we find that the material has been arranged by morphological order, separating between nouns, verbs and particles, when each category is arranged internally by alphabetical order of the root according to the various patterns<sup>1</sup>.

Important bilingual dictionaries involving Arabic were not many prior to the 17th century and those composed were usually limited in size. They included Syriac, Hebrew, Persian, Turkish, Greek, Latin and Coptic (known as *as-salālim*), when the lexicographers were mainly

<sup>1</sup> See e.g. al-Fārābī's *Dīwān al-adab* which was composed in 10 c.

non-Arabs<sup>2</sup>. However, it was only when the West re-discovered the East with the Napoleonic invasion that the need for modern bilingual dictionaries was felt. Western scholars who learnt Arabic were first responsible for composing the early bilingual dictionaries followed by Arab scholars, mainly Christians, who began to publish a series of bilingual dictionaries, chiefly involving French, English, German and Russian, in addition to new dictionaries in Turkish and Persian. This trend, which started towards the end of the 18th century, has continued incessantly to the present day. The overwhelming majority of these works were arranged by alphabetical order of the root, with the exception of a few recent dictionaries, e.g. Baalbaki (1987) and Sharoni (1987).

Dictionaries which are arranged alphabetically rather than by the 'traditional' order of the root began to appear only in our century, preceded by a handful of short works of a very limited scope, cf. Ya'qūb 1985:164.

However, the root-arrangement is still dominant in Arabic lexicography, and even bilingual dictionaries of Modern Standard Arabic, such as Wehr's and the colloquial Egyptian dictionary by Hinds and Badawi prefer the root system to the alphabetical one.

The question as to whether Arabic dictionaries should be arranged by alphabetical order of the roots or by alphabetical order of the words is, however, but one problem of the Arabic lexicon.

In his excellent books *Min qadāyā al-mu'ğam al-ʿarabī* (Tunis 1983), *A Propos du Dictionnaire de la Langue Arabe* (Tunis 1991), and his earlier works *L'Academie de Langue Arabe du Caire, Histoire et Oeuvre* (Tunis 1975) and *L'Academie de Damas et la Modernisation de la Langue Arabe* (Leiden, 1965), Hamzaoui discusses in detail the problems of Arabic lexicography by analysing all the important views expressed by Arab and non-Arab scholars, who all seem to be extremely critical of the systems adopted by Arab lexicographers. So acute are these problems, that the question as to whether one should prefer 'root-order' to 'word order' or vice versa is of less importance (Hamzaoui 1991:177).

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<sup>2</sup> For more details see Naṣṣār 1968 I, 91-96.

In general, all existing Arabic dictionaries suffer from several shortcomings and deficiencies. Those include:

(a) The difficulty in drawing clear borderlines between classical and modern stock. This is because a large number of words, and in particular meanings, do not occur in contemporary Arabic, yet they are often included in some of the modern dictionaries. For example the word *sayyāra* means 'car' in Wehr's *Dictionary* but according to Elias's *Modern Dictionary, Arabic-English*, it means both 'car' and 'caravan', presumed because this word appears in the *Qur'ān*, which, although regarded as a classical work, is used daily by Arabs, and therefore its vocabulary is not subjected to any time limits. Hence, the immediate question which comes to mind is which criteria should determine the inclusion or omission of a word or meaning on account of their being so-called 'classical' or 'modern'? Arabic - Arabic dictionaries do not usually distinguish between 'classical' and 'modern' words, leaving the decision to the user, but this, unfortunately, may result in ambiguity and misunderstandings, especially if the context is not intelligible.

(b) Many definitions of the entries are too short and general, hence, providing insufficient or unhelpful information. For example *al-ġamal* (camel) is defined by some dictionaries as *mā'rūf* - 'known' (Ibn Durayd, *Ġamhara* I, 491), whereas the word *ṣinf* (kind, sort) is defined by some dictionaries as *nawf* and the word *nawf* is defined as *ṣinf* (Reig 1991:37). Incidentally, az-Zamahšarī's definition of *na'na'* (mint) is 'simply' "*ḥayr al-buqūl an-na'na' wa-n-na'nā'* (the best of all herbs is mint)" (*Asās*, 462).

(c) The problem of diglossia is acute, in so far as no clear policy exists regarding the inclusion of colloquialisms. Thus, the words *kuwayyis* and *mabsūt* may be found in some dictionaries but not in all, whereas no dictionary of Modern Literary Arabic records, say, the words *dilwaqti* or *lēš*.

(d) There seem to be a unanimous decision regarding the omission of words and in particular expressions which belong to what used to be referred to by grammarians and lexicographers as *lahn al-ʿamma* i.e. substandard or nonstandard language. That is to say, while very few

examples are recorded by some dictionaries, the overwhelming majority are not, in spite of the fact that some of these so-called mistakes appear in literature. It seems that the 'rule' *vox populi vox Dei* does not apply to Arabic.

(e) No clear policy exists in so far as foreign words are concerned and their inclusion is left to the discretion of the lexicographer. Thus, we find in Wehr's dictionary scores of foreign words which are not included elsewhere, while other dictionaries record few foreign words which are not in Wehr's. Classical dictionaries usually incorporate those under *mu'arrab* or *dahīl*, or note the language from which the word was borrowed.

(f) No dictionary indicates clearly what were the corpora used, apart from the classical sources. Moreover, even the modern dictionaries make no claim of using for corpora modern Arabic literature. Hence, the fact that no modern dictionary contains *šawāhid* makes the search for a context, impossible. It goes without saying that in this way a large number of usages and in particular, metaphors, collocations and idioms are not registered by the modern dictionary, although very often they are current in modern writing. For example, many collocations used by present writers have not been recorded by any modern dictionary.

(g) It seems to me, however, that the greatest problem of all is the lack of co-ordination between the four Arab Academies to which one should add the fifth body which is situated in Morocco, and which carries the ironic name *Maktab at-Tansīq*. Here again one should refer to Rachad Hamzaoui who 'laments' in his works this hitherto insoluble problem. This is probably why we find in the Arabic dictionaries about ten words for a telephone, among which the most popular is the word *talafon*.

To these one may add the difficulty in finding satisfactory equivalents, in the case of bilingual dictionaries, in view of the 'cultural bond' which distinguishes one language from another.

In order to solve some of these problems we need at least five types of dictionaries as follows:

1. A comprehensive historical dictionary which will contain as many words, expressions, collocations and idioms as possible, analysed diachronically, highlighting chronologically the different usages in various texts and contexts<sup>3</sup>.
2. An etymological dictionary which will trace back the origins of Arabic phrases in comparison with other Semitic languages, (August Fischer's scattered etymological notes published in Cairo in 1965 resulted in one slim volume covering the entries *hamza* to *urīdu* is certainly insufficient).
3. A comparative dictionary of all Arabic dialects, which will highlight the different usages. (A few limited lists have hitherto been ventured by some scholars but they are certainly far from being comprehensive)<sup>4</sup>.
4. A comprehensive thesaurus – a kind of an Arabic *Roget* – is essential, especially that the available works are very limited.
5. A comprehensive dictionary of collocations, idioms and common sayings, based on written and oral use. This will help the student to have a better grasp of usage in context.

There is no doubt that teams of scholars, years of hard work and sophisticated equipment would be required in order to carry out efficiently this enormous task.

Concerning the question of alphabetical order by root versus alphabetical order by words, it seems that the complexity of the Arabic language (and in fact all other Semitic languages) and the consequent problems with which the learner of the language has to cope, make a dictionary arranged by alphabetical order of the words a most welcome tool, which may partly solve these problems. Existing dictionaries such as Ğ. Mas'ūd's, *ar-Rā'id* (Lebanon 1964), F. A. al-Bustānī's *al-Munğid al-abğadi*, (Lebanon 1967), H. al-Ğurr's *Larousse* (Paris 1973) and a few more (see Ya'qūb 1985:264), which are all arranged by alphabetical order

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<sup>3</sup> A historical dictionary was the theme of a conference held in Tunis in November 1989. For the Proceedings, see *Du Dictionnaire Historique de la Langue Arabe*.

<sup>4</sup> For the problems connected with dictionaries of Arabic dialects see Harrell 1975.

of the word, certainly make the life of the learner easier, although the clear disadvantage is the inevitable separation between derivatives based on the same root. A. Sharoni, in his recent *Arabic-Hebrew Dictionary* (see Hamzaoui 1991:177), arranges all entries by alphabetical order of the word, including the roots, but lists under the roots all the existing derivatives. This method calls R. Payne Smith's *Syriac Dictionary* to mind in that this valuable lexicon lists at the end of many roots the various derivatives which appear according to their alphabetical order.

These and other technical 'tricks' such as using a different colour for the roots and the entries<sup>5</sup>, are certainly most helpful to the learner.

In conclusion, in view of the difficulties and challenges posed by the nature of the language, one may clearly see the advantages of both orders. Hence, the solution should be motivated by pedagogical as well as practical considerations: The beginner should be encouraged to use a dictionary which is arranged by alphabetical order of the words, while the advanced student should, once the verb system has been learned, use the 'root-order' dictionary to develop his awareness to the 'common denominators' of the words.

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<sup>5</sup> See recent editions of *al-Munğid*, *ar-Rāʿid*, *al-Qāmūs al-muḥīṭ* and *Muḥīṭ al-Muḥīṭ* published within the past twenty years or so.

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