

SOME REMARKS ON THE CONCEPTUAL FOUNDATIONS OF THE ARABIC LINGUISTIC TRADITION*

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I. - INTRODUCTION

Western Scholars and historians of linguistics have tended to pay little attention to the linguistic contributions that the early Arab** grammarians made to the linguistic thought in general. This is probably due to, among some reasons, a misassessment of the works of the Arab grammarians as being below the Westerners' « standards » of good works. On the other hand, there have been, unfortunately, some modern Arab linguists who implicitly agree with the western scholars and they claim that the Arabic traditional works are lacking in terms of unity, concepts and methodology.

The purpose of this study is to briefly examine some conceptual aspects of the Arabic linguistic tradition as represented in the works of some prominent grammarians such as Al-Farahidi (d. 174/791), Sibawaih (d. 180/793), Ibn Jinni (d. 392/1001) and others.

Based on the subsequent discussions which will primarily include syntactical examples, we will argue that the Arab grammarians' contributions were remarkable and are to be fully recognized in the history of linguistics. In addition, we will attempt to prove that these Arab grammarians had, in deed, produced an original linguistic theory about the structure of Arabic in general. In other words the main focus of this study will be directed to the examination of some theoretical foundations of the Arabic linguistic tradition. Our Working hypothesis runs as follows : The Arab grammarians have adequately described the grammar*** of Arabic and that description was systematic and scientific. It was based on a certain number of plausible principles which are, in some sense, very close to the conceptual and methodological principles found in modern linguistics.

We think that had the historians of linguistic thought had the opportunity to examine and evaluate this vast Arabic linguistic literature objectively and honestly as it

represented in the large volumes on syntax, phonology, morphology, and lexicography, they would have drastically changed their views about it, and linguistics, as a science, would have been much more advanced science (Al-Musaddi, 1981). Consequently, the status of the whole tradition would have been reconsidered. It will become obvious later that despite the least recognition this tradition has been given, it has played an important role in shaping the modern linguistic thought in away or another (Hilal, 1989).

There is no doubt that writing a historical record of any discipline requires a scholar to be objective and knowledgeable. He has to be fair in stating the facts which constitute his subject matter. Furthermore, a historian has to find every possible means to acquaint himself with all the sources of the historical data regardless of some linguistic barriers which are related to his linguistic background. Responding to Muller's claim that Panini's grammar is incomparable and unsurpassable, Al-Mousa (1980:107) correctly states that « Such claims could have been right, if those scholars had acquainted themselves with all written grammars in the world and also if they had, further, established clear methodological standards in order to judge other grammars. »

In his book on the history of linguistics Mounin (1972) points out that the Indians and the Greeks had exerted some influence on the Arabic linguistic tradition. He makes no reference to any particular Arab grammarian or any book on Arabic grammar. Overall, he overlooks the contributions of Arab grammarians. Surprisingly, he devotes good portions of his book to describe some relatively insignificant contributions of different nations such as the Summerians, the old Egyptians, and the Chinese. Bloomfield's (1933) brief reference to Arabic tradition is quite limited and is no better than Mounin's.

Robins' (1967) book entitled « A Short History of Linguistics » is widely known as the best contemporary

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** The term « Arab » is used here to refer to Muslim grammarians in general.

*** The term « Grammar » is used in a broad sense to refer to all components ; namely phonology, morphology, syntax and semantics.

FOOTNOTES

- (1) E.A. Speiser, « Ancient Mesopotamia : A Light that Did not Fail » in *National Geographic Magazine*, Jan. 1951, p. 66.
- (2) For Sumerian and Assyrian lexicography, see : C.F. Jean. *La Littérature des Babyloniens et des Assyriens*, Paris, 1924, p. 281 ff ; P.E. Van der Meer, *Sylbaries A, B' and B, with miscellaneous lexicographical texts from the Herbert Weld Collection*, Oxford, 1938 ; Stephen Langdon, *Sumerian Grammatical Texts*, Philadilphia, 1917 ; and *Cuneiform Texts from Babylonian Tablets in the British Museum, Part X, 1, 1900 (As mentioned in John A. Haywood, Arabic Lexicography (Leiden ; E.J. Brill, 1965, p. 5. Also see «Dictionary» in Encyclopaedia Britannica.*
- (3) E.A. Speiser, *op. cit.*, p. 45.
- (4) Haywood, *op. cit.*, pp. 5-7.
- (5) *Encyclopaedia Universalis*, volume 5, p. 555. In the original text it reads as follows : «Les premières formes, souvent très rudimentaires, des dictionnaires sont nées avec les premières civilisations à écriture, en Mésopotamie au 2^e millénaire, en Egypte 1750 ans avant notre ère, pour répondre aux besoins pratiques de la communication humaine entre des groupes différents. Les dictionnaires «scientifiques» ne paraîtront que beaucoup plus tard».
- (6) *The Qur'an*, as translated by Marmaduke Pickthall.
- (7) *Shorter Encyclopaedia of Islam*, (Leiden : E.J. Brill, 1991).
- (8) Hussein Naşşar, *Al-Mu'jam ul-'Arabi* (Cairo : Maktabatu Mişr, 1968), pp. 40-45.
- (9) As in Haywood, *op. cit.*, p. 115. It should be pointed out that Al-Tha'alibi was an outstanding man of letters and a great lexicographer, and this double qualification enabled him compile the first complete dictionary of quotations in Arabic entitled *Al-Tamthil wal Muḥadara*.
- (10) Ahmed Amin, *Dhuḥa al-Islam* (Cairo, Al-Nahḍa, 1956), pp. 263-266.
- (11) Haywood, *op. cit.*, p. 123.
- (12) Ahmed Iqbal Ash-Sharqawi, *Mu'jam ul-Ma'ajim*, (Beirut : Darul-Gharb al-Islami, 1987).
- (13) One of the prophet Muḥammad's Ḥadiths (oral tradition).
- (14) *The Qur'an*, Surate *Al-Anbiya'*, verse 92.
- (15) Amil Ya'qub, *Al Ma'ajim ul-Lughawiyah ul-'Arabiya*, (Beirut, Dar ul-'Ilm lil Malayin, 1981), pp. 195-197.
- (16) Ash-Sharqawi, *op. cit.*, pp. b-c.
- (17) G. Mallinson, « The dictionary and the lexicon : a happy medium ? » in *ITL*, 45-46 (1979), pp. 10-18.
- (18) *Encyclopaedia Britannica* (Chicago : Ency. Brit. Inc., 1960).
- (19) *Oxford Advanced Learners' Dictionary of Current English* (Oxford : Oxford Univ. Press, 1974).
- (20) The word « genius » in many modern European languages is etymologically derived from the Arabic word « jinn ».
- (21) *Shorter Encyclopaedia of Islam*, its article on *Al-Khalil*.
- (22) *Al-Khalil*, *Al-'Ain*, (Baghdad, 1913) the introduction.
- (23) The Arabic Language Academy, *Al-Mu'jam ul-Wasiṭ* (Cairo ; Dar al-Ma'arif, 2nd ed., 1972).
- (24) Hans Wehr, *A Dictionary of Modern Written Arabic*, ed. by J. Milton Cowan (Beirut : Librairie du Liban, 1980).
- (25) 'Abdul Sami' Muḥammad Aḥmad, *Al-Ma'ajim ul-'Arabiya* (Cairo : Dar ul-Fikr il-'Arabi, 2nd ed., 1974), pp. 46-47.
- (26) *Ibid*, p. 57.
- (27) Al-Jauhari, *Aṣ-Ṣiḥaḥ* (Cairo : Dar ul-Kitab il-'Arabi, 1956).
- (28) Haywood, *op. cit.*, p. 73.
- (29) Aḥmad 'Abdul-Ghaffar 'Aṭṭar, *Introduction to Al-Jauhari's Dictionary Aṣ-Ṣiḥaḥ*.
- (30) 'Abdul 'Ali Al-Wadghiri, *Qaḍaya al-Mu'jam al-'Arabi* (Rabat, Manshurat 'Okaṣ, 1989), p. 156.
- (31) Az-Zamakhshari, *Asas ul-Balagha* (Beirut : Dar ul-Ma'rifa, 1979).
- (32) *Arabic Language Academy, Alwasit* (Cairo : ALA, 1960-61).
- (33) Az-Zamakhshari, *Asas ul-Balagha*, the introduction.
- (34) Al-Kasimi, *Linguistics and Bilingual Dictionaries*, (Leiden : E.J. Brill, 1977), pp. 27-28.
- (35) Charles A. Ferguson, « Diglossia », *Word*, 15 (1959), p. 336.
- (36) Ibn Duraid, *Al-Jamhara*, the introduction.
- (37) Al-Jauhari, *Aṣ-Ṣiḥaḥ*, the introduction, as quoted in Haywood, *op. cit.*, pp. 70-71.
- (38) Al-Kasimi, *op. cit.*, p. 37.
- (39) Amil Ya'qub, *op. cit.*, pp. 61-62.
- (40) James Sledd and Gwin Kolb, *Dr. Johnson's Dictionary* (Chicago : the Univ. of Chicago Press, 1955), pp. 41-43.
- (41) Al-Kasimi, *op. cit.*, pp. 30-31.
- (42) Robert Hunter's *Encyclopedic Dictionary was begun in 1872 and completed in 1889*.
- (43) Ash-Shadiaq, *Aljasus 'ala Al-Qamus* (Constantinople : Al-Jawāib Press, 1299 H).
- (44) Al-Bustani, *Qaṭr ul-Muḥiṭ*.
- (45) Ma'louf, *Al-Munjid* (Beirut, 1908) and since 1930 the edition of the *Al-Munjid* included an appendix of biographical, geographical and cultural entries.
- (46) *The Basic Arabic Dictionary* was compiled and published under the auspices of the Arab League Educational, Cultural and Scientific Organization (ALECSO), and distributed by Larousse, Paris, 1989

The main sources from which Arab lexicographers have been drawing their quotations are : the Qur'an, the Hadith, poetry and proverbs. Many medieval Arab lexicographers were prescriptive in the selection of their quotations in the sense that they limited their citations to the pre-Islamic and early Islamic literature, the « golden age » of the language, when the language was « pure » (to about the end of the ninth century) claiming that the language became no longer « pure ».

Although some contemporary Arab lexicographers do not insist on the full identification of their illustrative quotations because they believe that it is not important who used the word, but how it was used, as is the case in *The Basic Arabic Dictionary*, ancient Arabs used to identify the source of their quotations unless it was anonymous such as proverbs, or verses which were not attributed to a particular poet. In that case, the dictionary used the introductory *clichés*, the « poet said : » or « as it was well said : » etc.

5.5. Proper Nouns in Arabic lexicography

Grammarians divide nouns into common and proper. Although it is difficult to distinguish between the two types linguistically, one can safely say that semantically a common noun designates a class whereas a proper one designates an individual. Proper nouns are names of persons, places (such as countries, cities, mountains, rivers, etc.), events (such as holidays, battles, etc.), cultural products (such as titles of books, epics, novels, etc.).

In principle, a dictionary is not concerned with proper nouns, rather with lexical items. The place of proper nouns is in encyclopedias or encyclopedic dictionaries. That is why those entries of proper names are sometimes called non-lexical items or encyclopedic information.

However, most contemporary linguists who write about lexicography or practise it are of the opinion that it is very useful to include encyclopedic information in dictionaries to serve the person who consults them best⁽⁴¹⁾.

In the English-speaking world, dictionaries had not dealt with non-lexical items until the first encyclopedic dictionary appeared in 1872⁽⁴²⁾. Most editors-in-chief of one volume English dictionaries refuse to include any non-lexical item in their products even if those items are essential to understand other lexical items listed in those dictionaries. An example of this point is the definition of the Muhammadian (Adj.) in *Webster's Seventh New Collegiate Dictionary* : « of or relating to Muḥammad or Islam ». If the reader looks up *Muḥammad* or *Islam* in the same dictionary he will be disappointed.

French lexicography has followed a tradition whose principles were set up by *l'Académie Française* in its dictionary whose first edition appeared in 1694. Proper names are not treated at all unless a particular proper name has been converted by usage into common name of adjective, as in the sentence « *c'est un hercule* ».

Other French dictionaries have followed suit such as *Le Petit Robert* and *Larousse*. For commercial reasons, certain editions of some of these dictionaries have an appendix of proper nouns.

At present, many European dictionaries include an appendix of biographical and geographical names which gives very brief information. The Arabic lexicographical tradition stands in the other camp. From the beginning of the tradition, proper names were included in Arabic dictionaries, even in the shorter ones. *Al-Khalil* listed them in his dictionary *Al-'Ain* which appeared in the middle of the 8th century. *Al-'Ain* has entries on a number of scholars who were contemporary to its author.

Nevertheless, the inclusion of proper nouns in Arabic dictionaries was somehow limited until *Al-Firuzabadi* compiled his dictionary *Al-Qamus*. In this dictionary one finds an intensive inclusion of all sorts of proper nouns such as names of places, tribes, swords, jinns, horses, dogs, etc.

In the nineteenth century, Arab lexicographers came to the conviction that the dictionary is not the right book for biographical and geographical names ; the dictionary of a layman should be devoted to language rather than to history, geography, philosophy or the like. This idea was advocated by *Aḥmed Faris Aṣḥ-Shidīaq* (1804-1888) in his critique of the *Al-Firuzabadi's* dictionary *Al-Qamus Al-Muḥīṭ*⁽⁴³⁾, and applied by *Buṭrus Al-Bustani* (1819-1883) in his dictionary *Qaṭr ul-Muḥīṭ*⁽⁴⁴⁾ which is a shorter version of his dictionary *Muḥīṭ ul-Muḥīṭ*, and *Louis Ma'louf* (1867-1946) in his best seller dictionary *Al-Munjjid* which was published in 1908 and was wholly devoted to lexical items only⁽⁴⁵⁾.

Finally this trend was confirmed by the Arabic Language Academy in Cairo which excluded all biographical and geographical names from its dictionary, *Al-Mu'jam Al-Wasīṭ* which was first published in 1960-1961.

It was my personal choice to include biographical, geographical and other names in *the Basic Arabic Dictionary* whose editorial board I coordinated. The dictionary is designated to serve the learners of Arabic in general and the non-Arabic speakers among them in particular. This sector of the dictionary users most probably looks up non-lexical items in their dictionary.

- a) No phonological information is provided for certain words which are so familiar that the users of the dictionary are expected to know their vowelings ;
- b) The provision of pronunciation aid is a necessity when mis-copying is feared, when words are difficult or rarely used, or when the same word has different vowelings for different meanings or the same meaning.

When pronunciation information was necessary, Arab lexicographers used one of the following methods :

- a) providing full vowelings of the word ;
- b) spelling out the short vowel after each consonant, e.g. Jiddah, (kasrah) after the jim and (faḥa) after the dal. This method was systematically used by Al-Jauhari in his dictionary *Aṣ-Ṣiḥaḥ* ;
- c) providing the model verb (or the verb form) after the verb whose pronunciation is difficult, e.g. as in *ḍaraba*, and the reader would understand that the middle vowel is (faḥa) in the perfect and (kasrah) in the imperfect. If the word is a noun, the lexicographer could provide a familiar noun of the same form or pattern, e.g. *faḍl* as in (mahl).

The last two methods were first introduced by Al-Qali (893-967) in his dictionary *Al-Bari'* whose manuscript is unfortunately still lost ; only two parts of the dictionary were published in 1931 by Wilton, the librarian of the Oriental Library in the British Museum⁽³⁹⁾.

At present, one rightly assumes that printing has facilitated the use of full vowelings in the Arabic dictionaries. Nevertheless, typing and printing errors have replaced mis-copying errors, and it is not utterly rare to find modern writers referring to the older methods of spelling out the name of the right vowel.

5.3. Grammatical Information

The famous saying of Bloomfield that the dictionary is an index to the grammar has been faithfully applied by Arabic dictionaries and it must be said that the Arab lexicographers knew this principle and practised it twelve centuries before Bloomfield was born. The first Arabic fully-fledged dictionary *Al-'Ain* included an introduction outlining the grammar of Arabic and the entries of the dictionary often referred to the introduction. Most Arabic dictionaries followed this tradition, even shorter ones like *Mukhtar uṣ-Ṣiḥaḥ* by Moḥamed Bin Abi Bakr Ar-Razi (died in 1268). In his introduction of this dictionary, the twenty major Arabic verb patterns (forms) are fully

conjugated and explained. In the entries of the dictionary, the verb is not conjugated ; instead its pattern is indicated only. This technique is very economical. I should admit here that this particular procedure is much more sophisticated than the method used in *The Basic Arabic Dictionary* of which I was the coordinator and which was published by Larousse in Paris just three years ago.

Arab lexicographers showed deep interest in grammar. As a matter of fact, grammar was the basis of word order in many early dictionaries. The father of Arabic lexicography Al-Khalil divided the sections of his dictionary in each chapter according to the number of radicals of each root : i.e. biliteral, trilateral, quadrilateral and quinquilateral. Al-Farabi divided the sections of his vocabulary *Diwan ul-Adab* into nouns and verbs.

Lexicographers included in their entries information on derivation and etymology, e.g. *As-Siḥaḥ* indicated arabicized words, and traced some words to other languages.

5.4. Illustrative Quotations

The use of illustrative quotations is one of the essential features of a good dictionary. They serve as a sort of pedagogical device which illustrates the grammatical, semantic and stylistic behaviour of the word in a live context.

English lexicography has not dealt with illustrative quotations until 1755 when Dr. Samuel Johnson introduced quotations in his *Dictionary of the English Language*. That was Dr. Johnson's major contribution to the development of English dictionary making⁽⁴⁰⁾.

In the case of Arabic dictionaries, the use of illustrative quotations was not a question to debate at all. Arab lexicographers have been traditionally using quotations intensively if not systematically. This tradition was laid down by the father of Arabic dictionary making Al-Khalil in the eight century.

However, it is worth saying that in addition to the purposes of illustrative quotations mentioned a short while ago, Arab lexicographers used them for two other purposes : first, to prove that the word does exist in Arabic ; secondly, to show that the word has a particular meaning to which the user or the critic might not be familiar. This is why the quotations were sometimes more difficult than the definition they were meant to illustrate. Consequently, the lexicographer was often obliged to explain the quotation to help the user understand it.

lexicographers to provide the users of their dictionaries with satisfactory phonological information, relevant grammatical indications, ample illustrative quotations and satisfactory encyclopedic information. In their own way, Arabic dictionaries have been descriptive and prescriptive at the same time.

5.1. Descriptive and Prescriptive Dictionaries

The lexicographer's descriptive or prescriptive attitudes can be illustrated in two interdependent aspects of dictionary making : the selection of the material and the purpose of the dictionary. A descriptive dictionary describes objectively the lexicon of a language on its present state as it is used by its native speakers, whereas a prescriptive dictionary describes the lexicon of a language as it was in one or more of its previous periods, most preferably its golden age, or as it should be used⁽³⁴⁾. In addition, the purpose of a prescriptive dictionary is to tell its users through usage labels which words are correct as well as those condemned as incorrect.

It might sound contradictory if one says that Arabic lexicography is descriptive and prescriptive at the same time, but that is the case. Early Arab lexicographers were descriptive in collecting their material and selecting their entries, and prescriptive in the objectives they set up for their dictionaries. Their material were collected from bedouin informants and from literary works especially the Qur'an, the prophet's tradition, and poetry. On the other hand, their purpose was very prescriptive, i.e to help people how to speak or use Arabic correctly. This prescriptive objective is fully justified by the phenomenon of diglossia in Arabic. Arabic has two varieties ; the dialects and the classical or literary Arabic « *which is learned largely by formal education and it is used for most written and formal spoken purposes but is not used by any sector of the community for ordinary conversation* »⁽³⁵⁾. Classical or literary Arabic is the language of the Qur'an and present day writing, and the main unifying factor of the Arab Nation.

Ibn Duraïd (837-933), author of the dictionary *Al-Jamhara* can serve as an illustrative example of lexicographers who were prescriptive and descriptive at the same time. He collected part of the material from conversations, the Arab desert in the South Arabia, where he took refuge after he fled Baṣrah because of a popular rising.

Otherwise, the purpose of *Al-Jamhara* was purely prescriptive : to help people to speak Arabic correctly, because « *we have dictated this dictionary at a time when*

ignorance is spreading among the people... » as the author declared in his introduction⁽³⁶⁾.

Another example of descriptive and prescriptive Arab lexicographers was Al-Jauhari (died about 1003), the author of the famous dictionary *Aṣ-Ṣiḥāḥ*. His descriptive approach of collecting his material is outlined in his introduction. He stated that he composed his materials « *after obtaining them by thorough study, and discussing them with true Arabs in their desert home-lands* »⁽³⁷⁾.

However, it should be noted that many of the dictionaries compiled during the period of the stagnation of the Arabic Culture (from about 13th to 19th century) were prescriptive in their approach of selecting their entries and choosing their illustrative quotations. Their entries were copied from earlier dictionaries and their quotations were limited to certain periods of the language, especially pre-Islamic and early Islamic periods.

Our contemporary dictionaries collect their material from the written variety of the language, not the spoken one, which is mainly in dialects. The written sources of the modern dictionary cover all the periods of the language (from the 5th to the 20th century) and all the varieties from the Qur'anic Arabic to present day newspapers' Arabic. This objective of coverage demands too much research and renders the lexicographers' task more complicated and difficult.

5.2. Phonological Information in the Arabic Dictionary

Arabic writing, when fully vocalized, is a comprehensive and accurate phonemic writing system in which every phoneme is represented by a distinct letter, and no phoneme is represented in more than one letter. All phonemic contrasts in our language are recorded in its writing system⁽³⁸⁾. Consequently, Arabic dictionaries do not really need a pronunciation transcription after each entry as it is the case, for example, in English or French dictionaries, on condition that those Arabic entries are fully vocalized.

Fortunately, computer-assisted printing has facilitated the vocalization of Arabic dictionaries. But when copying was the only means of publishing Arabic dictionaries, mis-copying resulted in plenty of phonological and orthographical errors in these dictionaries. Nevertheless, Arab lexicographers, as early as the eighth century, used to indicate pronunciation of their entries wherever necessary.

The provision of phonological information in early Arabic dictionaries was based on the following principles :

4.3. Arrangement of Sub-entries

Another defect from which the Arabic dictionary suffered for a long time was the arrangement of various derivations under a given root. Arab lexicographers, prior to the nineteenth century did not pay attention to this particular feature. Sometimes, they begin with the verb ; at other times, they started with the verbal noun. On a first look one might think that the difference is due to the adherence of lexicographers to two different schools of thought in Arabic linguistics : one claimed that the perfect verb is the original form from which all other derivations were generated ; the other gave this honour to the verbal noun. But further investigation shows that that was not the case. In the same dictionary one can easily notice that in certain entries the verb comes first, in other entries the verbal noun does, and in others the lexicographer might start with the adjective. Even when a lexicographer might start with the verbs of the same root, the way in which verbs were listed was not systematic ; thus you may find the quadrilateral preceded the trilateral verb, and so on.

Arab lexicographers have experimented with the arrangement of derivations by trial and error for a long time, until recently (about the fifties of the twentieth century) when the Arabic Language Academy in Cairo set up a kind of linguistically-based logical order of derivations to be adopted by its dictionary *Al-Wasīf* (32).

The present order of derivations adopted by most modern Arabic dictionaries is as follows :

- the verb without the letters of increase ;
- the verb with letters of increase arranged according to the number of those letters ;
- the nouns arranged alphabetically.

4.4. The Arrangement of Senses

The problem of the arrangement of meanings of polysemous words still faces contemporary lexicographers in spite of the progress achieved in the fields of linguistics, science of information and documentation.

The general trend among modern lexicographers is to arrange the various meanings of an entry according to one of the following principles :

1. The frequency order in which meanings are arranged from the most frequent one to the least frequent one. This principle, adopted by the dictionary of the French Academy, is preferred in dictionaries designed for learners or foreigners

such as the *Oxford Advanced Learners' Dictionary*.

2. The historical order where various meanings are listed according to the date of their appearance in the language, as it is the case of the *Oxford English Dictionary*, *Littre* and *Le Petit Robert* (edited by Alain Rey).
3. The logical order in which meanings are arranged from the concrete to the abstract, from the literal to the metaphorical, from the general to the particular, etc.

It goes without saying that the frequency and historical orders require a lot of preceding research which was not possible for early Arab lexicographers. Most early Arabic dictionaries suffered from lack of systematic arrangement of various meanings for the listed words.

This matter was given full thought by Az-Zamakhshari (1075-1114) in his dictionary *Asas ul-Balagha* (the Basis of Rhetoric). During Az-Zamakhshari's age, rhetoric played an important role in both poetry and prose. Writers were fond of ornate rhymed prose dotted with words used in their metaphorical sense. Thus, Az-Zamakhshari listed the various meanings of the entries in his dictionary in a systematic way : the literal meaning first, then the metaphorical one. He stated this principle in his introduction⁽³³⁾.

The Arabic Language Academy in Cairo adopted Az-Zamakhshari's principle in the arrangement of meanings under entries in its dictionary *Al-Mu'jam ul-Wasīf*. This trend is not universal among contemporary Arab lexicographers. *The Basic Arabic Dictionary* adopted the frequency approach, as it is designed to serve the non-Arabic speakers.

However, the Arabic Language Academy in Cairo is also planning to compile a historical dictionary of the Arabic language, but it is a long-range and complicated project requiring much research, especially as Arabic is so rich and about three thousand years old.

5. CHARACTERISTICS OF ARABIC LEXICOGRAPHY

Having discussed the major difficulties or failures of Arabic lexicography, it is now fair to highlight its main successes or strong points. To my mind, the areas where Arabic lexicography excelled lay in the ability of Arab

Abu Ibrahim Ishaq Al-Farabi (died 961) who used the rhyme order in his vocabulary *Diwan ul-Adab* in which rhyme order was used in the sub-sections and not as the basic arrangement of the whole book. Nevertheless, Al-Jauhari declared in the short introduction to his dictionary that his rhyme order had not been anticipated in Arabic lexicography⁽²⁷⁾.

It was said that the rhyme arrangement responded to the needs of Arab poets and writers who were fond of rhymed prose in the tenth century. Another justification is that the rhyme arrangement made the use of the dictionary easier for the layman who could have difficulty in deducting the roots of difficult words when their first letters were obscured by the extra letters (of increase). Haywood suggested that the use of rhymes in prose facilitated learning by heart, at a time when there was no printing and manuscripts were expensive⁽²⁸⁾.

Al-Jauhari's dictionary was divided into 28 chapters, each represented one letter of the Arabic alphabet. All the roots ending with B, for example, are put together in the same chapter, and inside that chapter the roots are arranged alphabetically starting with their first letters and continuing to the last one. So the roots KDHB, KSB, KTB are listed in the same chapter.

Al-Jauhari's major contribution to the development of Arabic lexicography does not lie the rhyme arrangement of entries, rather in his abolishing of the traditional division of roots in each chapter according to the number of their radicals as well as the separation of the sound roots from the weak ones⁽²⁹⁾.

Al-Jauhari's dictionary was so popular that it gave rise to a number of abridgements, completions, expansions and commentaries. Two major dictionaries were later compiled in the rhyme arrangement :

- a) *Lisan ul-'Arab* by Muḥammad Ibn Manẓur (1232-1311). It is the most exhaustive encyclopedic dictionary in the Arabic language. It covers about 20 volumes.
- b) *Al-Qamus ul-Muḥiṭ* by Muḥammad Ibn Ya'qub Al-Firuzabadi (1326-1414). This dictionary was so popular that its name *Qamus* came to mean a dictionary in the Arabic language. Consequently, present day Arabic has two words meaning dictionary : *Mu'jam* and *Qamus*. Several contemporary Arab linguists prefer to use the first word as equivalent to « lexicon » and the latter one as « dictionary »⁽³⁰⁾.

4.2.4. The Ordinary Alphabetical Arrangement

The ordinary alphabetical arrangement of roots used in our present day was originated in the lexicographical works of Abul Ḥussain Aḥmad Ibn Faris (died around 1004). His two dictionaries : *Al-Maqayis* and *Al-Mujmal*, which is more famous, were compiled on the same plan. There are 28 chapters, each for one letter of the alphabet. All roots are arranged according to their initial radical, then their second and third one. However, Ibn Faris divided each chapter into three sections : biliteral roots, the trilateral ones, and the roots of more than three radicals.

The modern dictionary arrangement was further consolidated by another great scholar, Abul Qasim Maḥmud Az-Zmakhshari (1075-1144) in his excellent one volume dictionary *Asas ul-Balagha* in which the complete modern dictionary order was introduced. All the roots, regardless the number of their radicals, are listed alphabetically⁽³¹⁾.

The Arabic dictionaries compiled in the nineteenth and twentieth centuries followed the same arrangement as *Asas ul-Balagha*. The most famous among those dictionaries are *Muḥiṭ ul-Muḥiṭ* by Buṭrus Al-Bastani (1819-1883), *Aqrab ul-Mawarid* by Said Al-Shurtuni (1849-1912), and *Al-Munjid* by Louis Ma'louf (1867-1946).

4.2.5. Alphabetical Arrangement of Words not Roots

According to this order, words are arranged in the dictionary as they are written, not grouped under their roots. It is the arrangement used in all modern European dictionaries. This type of arrangement was first used by Al-Jurjani (1340-1413) in his work *Al-Ta'rifat*. But this innovation had not been appreciated by other Arab lexicographers who felt that this type of arrangement would obscure the semantic and morphological relationships among the derivations of the same root.

However, since the root arrangement encounters the layman and the learner with certain difficulties, some Arab lexicographers are tempted to adopt the alphabetical arrangement of words not roots. Sheikh Muḥamad Al-Bukhari Al-Miṣri (died in 1914) rearranged two early major dictionaries *Lisan ul 'Arab* and *Al-Qamus ul-Muḥiṭ* according to this order. Later on, this arrangement was adopted by Abdullah Al-'Alayali (1914-) in his dictionary *Al-Marji'* (1963), Jabran Mas'ud (1930-) in his dictionary *Al-Ra'id* (1964), Fouad Ifram Al-Bustani in his dictionary *Al-Munjid Al-Abjadi* (1967), which was an abridged version of *Al-Munjid*, and Khalil Al-Jur in his dictionary *Larousse* (1973).

4.2. Arrangement of Entries

The problem of arrangement of entries in the Arabic dictionary has not been resolved yet. A few years ago, the editorial board of the *Basic Arabic Dictionary*, published in 1989, by the Arab League Educational, Cultural and Scientific Organization (ALECSO) had great difficulty in deciding whether the entries of the dictionary should consist of roots or words arranged alphabetically.

Until the twentieth century, almost all Arabic general dictionaries take roots as their starting point and arrange them according to one order or another. The main advantage of the root arrangement is that it regroups all the word family in one entry and thus definitions are shortened and understanding made easy. However, the root arrangement has its difficulties. To begin with, many learners and laymen cannot deduct the root of the difficult derived words they want to look up in the dictionary. Secondly, a lot of borrowed words have no known root and have to be entered alphabetically. Thirdly, even lexicographers do not agree on the real root of certain words such as *Mina* ; should it be listed under the root (M N A) as the *Al-Waṣīṭ Dictionary*⁽²³⁾ did, or under the root (M A N) as Hans Wehr⁽²⁴⁾ did ?

The development of arrangement of entries in the Arabic dictionary has passed five distinct stages, though overlapping :

4.2.1. Phonetically-based Alphabet and root permutation

Before the first Arabic dictionary was compiled by Al-Khalil, there were two orders of the Arabic alphabet, and they still exist :

- a) the alphabetic order which is widely used nowadays in catalogues and in dictionaries. It groups the letters according to their forms : a, b, t, th, j, h, kh, d, dh, r, z, s, sh, ṣ, ḍ, ṭ, ḏ, ʿ, gh, f, q, k, l, m, n, h, w, y (the vowels u, a, i and ū are not included) ;
- b) the Abjedic order which is used at present on a smaller scale especially in numbering parts of articles and the like : a, b, j, d, h, w, z, h, t, y, k, l, m, n, s, ʿ, f, ṣ, q, r, sh, t, th, kh, dh, ḍ, ḏ, gh.

However, Al-Khalil did not choose either order for *Al-ʿAin*. Instead, he derived his own order of the Arabic letters according to their point of articulation starting with the gutturals upwards to the labials. Thus, the letters are arranged as follows : ʿ, h, h, kh, gh, q, k, j, sh, ḍ, ṣ, s, z, ṭ, d, t, ḏ, dh, th, r, l, n, f, b, m, w, alif, y, '.

The dictionary was divided into chapters, one for each letter of this alphabet. Inside the chapter each letter was taken in rotation with other letters to record all the roots containing that letter. Then, each chapter was divided into sections according to the number of radicals in the roots. Inside each section every root in use was permuted to produce the other possible roots.

Although Al-Khalil's system is complicated and cumbersome, it enhanced the thinking about and understanding of language, and stimulated phonological and lexicographical research. It influenced dictionary making for over two hundred years.

In the tenth and eleventh centuries, Al-Khalil's system was imitated by a number of lexicographers such as Abu 'Alī Al-Qalī (893-967) in his dictionary *Al-Bari'*, Abu Manṣūr Muḥammad Al-Azhari (893-981) in his *Al-Taḥdhib fil Luḡha*, an encyclopedic dictionary in ten volumes, Muḥammad Ibn ul-Ḥassan Al-Zubāidī (died in 989) in his abridgement of *Al-ʿAin* entitled *Mukhtaṣar ul-ʿAin*, Al-Ṣāḥib Ibn 'Abbad (938-995) in his dictionary *Al-Muḥīṭ*, and the blind Andalusian linguist 'Alī Ibn Sida (1007-1066) in his dictionary *Al-Muḥkamu wal Muḥīṭul A'zam*⁽²⁵⁾.

4.2.2. Normal Alphabetical Order and Root Permutation

The second development of arrangement of entries in the Arabic dictionary was achieved by Abu Bakr Moḥamed Ibn Duraïd (837-933), an outstanding linguist and poet who was born and died in Baghdad. As he mentioned in the introduction to his dictionary *Jamharat ul-Luḡha*, the author had noticed that the phonologically-based order of alphabet invented by Al-Khalil was too difficult for the layman, that is why he left it aside and arranged his dictionary according to the alphabetical order with which all people are familiar.

Unfortunately, Ibn Duraïd was not able to get rid of Al-Khalil's anagrammatical arrangement of roots, nor of their grouping according to the number of their radicals, i.e. biliteral, trilateral, etc.⁽²⁶⁾.

4.2.3. The Rhyme Order

A radical development in the arrangement of entries in the Arabic dictionary was brought about by a prominent linguist, Abu Naṣr Al-Jauhari (died in Nisapur in about 1003 in an attempt to fly by using a pair of artificial wings). In his dictionary *Aṣ-Ṣiḥaḥ*, Al-Jauhari arranged the roots according to their final consonant. Some people think that Al-Jauhari was influenced by his maternal uncle

the lexicographer Al-Qali who was born in Turkey, left for Baghdad (Iraq) as a young man for his higher studies, and settled down in Cordoba (Spain).

In the nineteenth and twentieth centuries, some European orientalisks contributed to Arabic lexicography, such as Dozy (1820-1883) who compiled *Takmilat ul Ma'ajim Al'Arabiyya* and Edward William Lane (1801-1876), who compiled *Mad ul Qamus*, an Arabic-English Dictionary in eight volumes⁽¹⁶⁾.

4. DIFFICULTIES OF ARABIC LEXICOGRAPHY

In their search for producing the ideal dictionary, Arab lexicographers have faced and still face a number of difficulties. The following are the most important problems for the Arabic dictionary :

4.1. Selection of Entries

Contemporary lexicographers, wherever they may be, are concerned with a vital issue of their profession, namely the relationship between the practical dictionary and the theoretical lexicon of the language. In other words, how much material does a lexicographer include in his dictionary in terms of individual lexical entries ? And how should that material be organized within each lexical entry ?⁽¹⁷⁾.

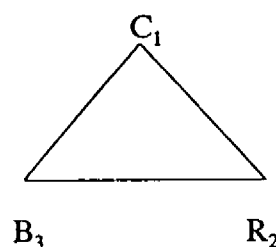
Do we define the dictionary as « a book listing words of a language... » as *Encyclopedia Britannica*⁽¹⁸⁾ does, or as « a book containing and explaining the words of a language... » like the *Oxford Advanced Learners dictionary* does⁽¹⁹⁾ ? According to the first definition only a certain number of words will be included in the dictionary, whereas the second definition implies that all the words of a language should be listed in the dictionary.

The father of the Arabic dictionary, Al-Khalil Ibn Ahmad (718-786) was a genius⁽²⁰⁾. He was a prominent linguist, poet, mathematician and musician who wrote monographs on tuning musical instruments. Al-Khalil codified the poetic metres and his metrical system of Arabic poetry is the only one used until our present day.

As a lexicographer, Al-Khalil did his best to devise a method (or let us say a programme, in the jargon of today's computer scientists) by which one can count all possible words in the Arabic language. He explained his method clearly in the introduction he wrote to his Dictionary *Al-'Ain*. As the articles of the dictionary

included some mistakes that could not be committed by a leading linguist like Al-Khalil and referred to certain linguists who lived after the author's time, some scholars were tempted to suppose that Al-Khalil wrote only the introduction of the dictionary and set up its skeleton, and the rest of the entries were filled up by his students, in particular Al-layth (?-796). These mistakes and references to later linguists could be the transcribers' act⁽²¹⁾.

Al-Khalil's method defines first the types of possible roots in Arabic. They are biliteral, trilateral, quadrilateral and quinquiliteral. The vast majority of Arabic roots are trilateral. So, he took each of the 28 letters of the Arabic alphabet in rotation with other letters, recoding roots containing that letter. Each root is permuted to generate six roots. e.g. the root C R B.



$$\begin{aligned}
 1 + 2 + 3 &= \text{CRB} \\
 1 + 3 + 2 &= \text{CBR} \\
 2 + 1 + 3 &= \text{RCB} \\
 2 + 3 + 1 &= \text{RBC} \\
 3 + 1 + 2 &= \text{BCR} \\
 3 + 2 + 1 &= \text{BRC}^{(22)}
 \end{aligned}$$

All six roots are used in Arabic, but in other cases, certain possible roots are not used (neglected, in Al-Khalil's terminology) because of phonological constraints.

Thus, Al-Khalil designed a method of recording the total vocabulary of the language. His method and his ambition influenced generations of lexicographers thereafter. It took great efforts and immense courage to get rid of this authority's cumbersome method.

Like all lexicographers in the world, Arab dictionary makers still face the problem of selecting the entries of a general dictionary. Even when one specifies the purpose of this dictionary, Applied Linguistics has not set up scientific rules or criteria of entry selection. That is why many scholars tend to say that lexicography is not a science but an art.

a) The use of informants

Linguists, who were usually city-dwellers, went into the desert to talk to bedouins, whose language was considered to be pure Arabic, and recorded words used by them, not according to a certain classification or order, but as they heard them. Books of history of the Arabic language and literature are full of stories of those linguistic researchers and their encounters with the bedouins. Among outstanding linguists who carried out such research were Al-Aṣma'i (739-831) and Abu 'Ubaïda (728-824). This type of research constitutes part of modern sociolinguistics in the West.

b) The compilation of vocabularies

The second stage was the classification of the words collected in the desert under subject headings such as rain, milk, palm trees, generosity, wild animals, horses, etc. During this stage, Al-Aṣma'i compiled short monographs on various topics such as : the Qualities of Man, Clothing, the Horse, the Camel, the Sheep, Houses, Weapons, Plants and Trees. Abu 'Ubaïda compiled several monographs on several topics such as the Horse, the Camel, the Eagle, the Dove, Snakes and Rare Expressions.

c) The Dictionary Making

At this stage, linguists embarked upon the compilation of fully-fledged dictionaries. The first Arabic dictionary was made in Baṣrah (in the south of modern Iraq) by Al-Khalil Ibn Aḥmad Al-Farahidi (718-786). As there was no precedence in Arabic for the reference book that Al-Khalil elaborated, he had to face all the problems of Arabic lexicography and find solutions to them⁽¹⁰⁾.

3.2. Typological varieties of Arabic Dictionaries

Until the nineteenth century, the Arabic dictionary had been basically monolingual with few exceptions, notably Az-Zamakhshari's Arabic-Persian Dictionary.

This does not mean that other nations did not compile bilingual or multilingual dictionaries in which Arabic was handled as a source or target language. In Europe, several orientalist compiled a number of such dictionaries ; for example, Jacobus Golius (1596-1667) compiled the *Lexicon Arabico-Latinum* which was published in Leiden in 1653 ; Edward Castell (1608-1685) compiled a polyglot dictionary which included Arabic ; and George Wilhelm Freytag (1788-1861) published his four-volume *Lexicon Arabico-Latinum* in Halle between 1830 and 1837⁽¹¹⁾.

However, the monolingual Arabic dictionaries have covered all various types of lexicographical works. A Moroccan scholar busied himself for a while compiling a classified bibliography of Arabic dictionaries, and was able to assemble about two thousand titles though his bibliography is not comprehensive⁽¹²⁾.

The Arab lexicographers excelled in all types of dictionaries ; specialized and general, lexical and encyclopedic, descriptive and historical, and so on.

3.3. Universality of Arabic Lexicography

When one talks about Arabic lexicography, it does not mean lexicographical works written by Arab scholars, rather written in Arabic whether by Arabs or non-Arabs. Islam does not differentiate among individuals on the basis of their race, colour or sex but on their faith and merit only. All Muslims constitute one nation « *Ummah* ». « *There is no distinction between an Arab and a non-Arab except in terms of pious fear (of God)*⁽¹³⁾ and as it was stated in the Qur'an « *This nation of yours is one nation ; I am your Lord ; so worship me* »⁽¹⁴⁾.

To illustrate the fact that the Arabic lexicographic works were elaborated by Arabs and non-Arabs, here is a list of the eleven greatest lexicographers before the nineteenth century with their birthplaces indicated next to their names, although their birthplace does not mean that their dictionaries were compiled in the same place, as most scholars used to travel freely in the Islamic world for study or work. An example of this phenomenon was

N°	Lexicographer	Place of birth	Dates of birth and death	Dictionary
1	Al-Khalil Ibn Aḥmad	Oman	718-786	Al-'Ain.
2	Abu 'Ali Al-Qali	Manazgird (Armenia)	893-967	Al-Bari'
3	Ibn Duraïd	Baghdad (Iraq)	837-933	Al-Jamhara.
4	Abu Manṣur Al-Azhari	Herat (Khurasan)	893-981	Tahdib ul-Lugha.
5	Isma'il Al-Jauhari	Farab (Turkey)	? -1003	Aṣ-Ṣiḥaḥ
6	Ibn Faris	Qizwin (Caspian)	941-1004	1) Al-Mujmal. 2) Al-Maqayis.
7	'Ali Ibn Sida	Murcia (Spain)	1007-1066	Al Muḥkamu wal Muḥitil A'zam.
8	Az-Zamakhshari	Zamakhshar (Khiva)	1075-1144	Asas ul-Balagha.
9	Ibn Manzur	Egypt	1232-1311	Lisan ul-'Arab.
10	Al-Firuzabadi	Karzin (Iran)	1326-1414	Al-Qamus ul-Muḥit.
11	Al Zubaidi	Zubaid (Yemen)	1732-1790	Tajul 'Arus ⁽¹⁵⁾ .

Some of the syllabars, discovered by Assyriologists in Iraq, are made up of four columns : the Sumerian sign, its meaning, the Assyrian equivalent and the meaning of the latter⁽²⁾.

Although Babylon was the administrative capital of the Babylonian Empire, the city of Nippur was its religious and scientific centre. From its libraries, the archeologists dug out collections of religious, literary, historical masterpieces as well as elaborate grammars and dictionaries. This fact made one of the archeologists who participated in uncovering those libraries describe Mesopotamia as « the birthplace of writing and the cradle of civilization »⁽³⁾.

The early essays in lexicography in Chinese and Sanskrit may be as old as the Assyrian, but the first work preserved in Chinese is *Erh Ya* which may date back to about 200 B.C., and in Sanskrit is the *Amarakoṣa* which dates to about 500 A.D.⁽⁴⁾

The fact that Arab world was the cradle of the dictionary led *Encyclopedia Universalis* to state in the opening of its article on *dictionnaire* as follows :

« The earliest dictionaries, often very rudimentary, were born with the first civilization where writing was practised, in Mesopotamia in the second Millennium, and in Egypt 1750 before our time. They were a response to the practical needs of human communication between different groups. 'Scientific' dictionaries did not appear until much later »⁽⁵⁾.

3. DEVELOPMENT OF ARABIC LEXICOGRAPHY

3.1. Islam and the Arabic Language

The history of Modern Arabic is closely associated with the birth of Islam in 610 A.D. Islam emphasized the necessity of learning and the importance of knowledge from the very first verse of the Qur'an revealed to the Prophet Mohamed :

« Read : In the name of thy Lord who createth,
Createth man from a clot.
Read : And thy Lord is the most Bounteous
Who teacheth by the pen,
Teacheth man that which he knew not »⁽⁶⁾.

One century after the death of the Prophet in 632 A.D., Islam expanded from the Gaule in Europe to the frontiers of India and Chinese Turkistan. The rapid expansion cannot be explained by military force, rather by the humanitarian values of peace, brotherhood, justice and knowledge that Islam embodied for the masses⁽⁷⁾.

Wherever Islam spread, its language, Arabic, was introduced and learnt. Muslims recite the Qur'an in Arabic and say their prayers five times a day in Arabic.

The keen interest Muslims showed in understanding the Qur'an gave rise to linguistic studies including grammar and lexicography. Almost all scholars who have investigated the rise of Arabic lexicography agreed that the main motive behind the early Arabic vocabularies was to understand the Qur'an and the Ḥadith (Oral tradition or sayings of the Prophet).⁽⁸⁾

The relationship between the devotion to Islam and Arabic linguistic research is summed up by Al-Tha'alabi (961-1038), who was a non-Arab Muslim, in his introduction to his famous dictionary *Fiqh ul-Lughah*, one of the early dictionaries of synonyms in Arabic :

« Whoever loves God Most High loves His Prophet... and whoever loves the Arab Prophet, loves the Arabs. And whoever loves the Arabs loves the Arabic language, in which the most excellent of books was revealed to the most excellent of Arabs and non-Arabs. And whoever loves Arabic (must) busy himself with it and apply himself assiduously to it... »⁽⁹⁾.

The importance of lexicography as a vital aid to the understanding of the Islamic Shari'a was emphasized by several lexicographers such as Al-Firuzabadi (1326-1414) whose dictionary *Al Qamus* gave its name as a synonym to the word *Mu'jam* i.e dictionary in Arabic. As a matter of fact, many early lexicographers were originally specialists of Qur'anic studies and had written their own interpretations of the Qur'an. Two outstanding examples of this type of scholars are Al-Azhari (893-981) whose earlier exegesis specialization made him draw most his illustrative quotations in his dictionary *Tahdhib ul-Lughah* from the Qur'an and Hadith, and Az-Zamakhshari (1075-1144) who had done an authoritative Qur'anic exegesis work in addition to his famous dictionary *Assas ul-Balagha*.

One common feature between the Qur'an and Arabic dictionaries is that while the Qur'an has preserved and perpetuated classical Arabic and kept it « static » as its dialects diverged from it, dictionaries helped immensely in understanding that language as it reveals itself in the Qur'an.

3.2. Stages of Development of Arabic Lexicography

The development of Arabic lexicography has passed through three distinct stages though they sometimes overlapped. These stages are :