Arabic word structure: an overview

"The Semitic root is one of the great miracles of man's language."

1 Morphology in general
Morphology, or word structure, pertains to the organization, rules, and processes concerning meaningful units of language, whether they be words themselves or parts of words, such as affixes of various sorts. Meaningful components and subcomponents at the word level are referred to as morphemes. Arabic morphology is different from English in some very basic respects but it is highly systematic. In fact, Arabic and the Semitic languages have had substantial influence on the development of certain key concepts in theoretical morphology.

Theories of word structure, or morphology, usually focus on two essential issues: how words are formed (derivational or lexical morphology) and how they interact with syntax (inflectional morphology, e.g., marking for categories such as gender, number, case, tense). Arab grammarians, starting in the late eighth and early ninth centuries AD, developed sophisticated analyses of Arabic morphology that differ from modern Western theories, but interrelate with them in interesting ways. Because this reference grammar is intended primarily for the use of Western readers, it is organized along the lines of traditional Western categories, with inclusion of the Arabic terminology.

Derivational or lexical morphology has to do with principles governing word formation (such as analysis of the English words “truthful” or “untruthfulness”

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1 Lohmann 1972, 318.
2 Aronoff (1976, 7) gives this general definition of morphemes: “the units into which words are analyzed and out of which they are composed.” This definition is adequate as a start, although Aronoff notes that it is problematic in certain ways for morphological theory. For a general introduction to traditional morphology a good place to begin is Matthews 1974. He writes: “the morpheme is established as the single minimal or primitive unit of grammar, the ultimate basis for our entire description of the primary articulation of language. Words, phrases, etc., are all seen as larger, complex or non-primitive units which are built up from morphemes in successive stages” (1974, 78). For further developments in morphological theory see Aronoff 1976 and 1994, Anderson 1992, and Spencer 1991.
3 “It may thus well be that all Western linguistic morphology is directly rooted in the Semitic grammatical tradition” (Aronoff 1994, 3).
4 For discussion of how Arabic morphological categories interrelate with Western theories, see Ryding 1993. See also discussions in Aronoff 1994, esp. 123–64 and Anderson 1992, 57–58; Monteil (1960, 105–223) has an excellent overview of MSA morphological issues.
derived from the base word “true”). Inflectional morphology describes how words vary or inflect in order to express grammatical contrasts or categories, such as singular/plural or past/present tense. Derivation, since it is the process of creating words or lexical units, is considered procedurally prior to inflection, which subsequently acts upon the word stem and modifies it, if necessary, for use in context (by affixing /s/ in English for plural, for example, or /ed/ for past tense). These are two fundamental categories, therefore, in approaching language structure. However, the boundaries between derivation and inflection are not as clear-cut in Arabic as they are in English because Arabic morphology works on different principles, and because Arabic morphological theory views elements of word structure and sentence structure from a different perspective.

Readers who are consulting this reference grammar for answers to specific questions may want to skip over the morphological theory and consult the paradigms (inflectional charts), and the book is designed to allow them to do so. However, those who are studying Arabic with goals of understanding the processes and categories of Arabic language structure will find that descriptions of the morphological structure are helpful not only in understanding the theoretical framework of Arabic, but also in organizing their knowledge in order to serve as a foundation for higher levels of achievement and proficiency. Moreover, without a sound grasp of Arabic morphological principles, learners will be unable to make use of Arabic dictionaries.

2 Derivation: the Arabic root-pattern system

Arabic morphology exhibits rigorous and elegant logic. It differs from that of English or other Indo-European languages because it is to a large extent based on discontinuous morphemes. It consists primarily of a system of consonant roots which interlock with patterns of vowels (and sometimes certain other consonants) to form words, or word stems. This type of operation is not unknown in English. If one looks at the consonant sequence s-ng, one knows that its meaning

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5 In the word “untruthfulness,” for example, there are four morphemes: un-, truth, -ful, and -ness. Three of these morphemes are bound, i.e., they cannot occur on their own, and one (“truth”) is “free.”

6 The two major categories of grammatical analysis in Arabic are سرф (صرف) and نحو (ناحو), which are often translated as morphology and syntax, respectively. However, the boundary between them is not the same boundary as in Western grammatical theory. The category of سرف covers many areas of derivational morphology (e.g., the ten forms of the verb) and some inflectional morphology (e.g., the past tense paradigm); but it does not include the study of case and mood. A further category of Arabic grammatical analysis, التفاعلات, is often translated as ‘etymology’ but actually deals more with Arabic derivational morphology. It is etymology (the study of word origins and development) in the sense that it deals extensively with the creation of words from the lexical root system, but not in the Western diachronic sense that examines the evolution of lexical items and their meanings over time and through different, though related stages of language evolution.
has to do with vocal music. By inserting different vowels into the vowel slot between the /s-/ and the /-ng/ several different English words can be formed:

- sing (v.)
- sang (v.)
- sung (v.)
- song (n.)

All of these items are words, or stems that can have suffixes such as “sing-ing,” “song-s,” “sing-s,” “song-‘s,” “sing-er,” or prefixes, such as “un-sung.” As a comparison, the consonant sequence s-ng corresponds roughly to the concept of an Arabic consonantal root, whereas the vowels and affixes would correspond approximately to the Arabic concept of pattern. The procedure of differentiating meaning by means of word-internal vowel change is known technically as “ablaut” or “introflexion,” defined as a word-internal change that signals a grammatical change. Other examples in English include: man/men, foot/feet, mouse/mice, know/knew, sink/sank/sunk. In English, the change usually involves just one vowel; however, in Arabic, it can involve several, for example:

- he wrote katab-a (v.)
- he corresponded kaatab-a (v.)
- it was written kutib-a (v.)
- book kitaab (n.)
- books kutub (n.)
- writer; (adj.) writing kaatib (n.)
- writers kuttaab (n.)
- write! (2 m.s.) uktub! (v.)

These words, or stems, can have inflectional suffixes such as katab-at ‘she wrote,’ or kutub-an ‘books’ (accusative case). The root or three-consonant ordered sequence k-t-b has to do with “writing,” and most words in the Arabic language that have to do with writing are derived from that root, through modifying patterns of vowels (and sometimes also adding certain consonants). This is a typically Semitic morphological system. In Arabic, this root-pattern process has evolved extensively and very productively in order to cover a vast array of meanings associated with each semantic field (such as “writing”). A few more examples:

- office; desk maktab (n.)
- offices; desks makaatib (n.)
library  maktaba (n.) مكتبة
she writes ta-ktub-u (v.) كتاب
we write na-ktub-u (v.) كتاب
writing kitaaba (n.) كتابة
written maktuub (PP) مكتوب

As seen in the above examples, the shifting of patterns around the consonantal root accomplishes a great deal in terms of word creation (derivation) and to some extent, word inflection (e.g., pluralization). The consonant root can be viewed as a nucleus or core around which are constellated a wide array of potential meanings, depending on which pattern is keyed into the root. Roots and patterns are interacting components of word meaning and are both bound morphemes. They each convey specific and essential types of meaning, but neither one can exist independently because they are abstract mental representations.  

2.1 A definition of root

A root is a relatively invariable discontinuous bound morpheme, represented by two to five phonemes, typically three consonants in a certain order, which interlocks with a pattern to form a stem and which has lexical meaning.

The root morpheme (for example, /k-t-b/) is “discontinuous” because vowels can be interspersed between those consonants; however, those consonants must always be present and be in the same sequence: first /k/, then /t/, then /b/. The usual number of consonants in an Arabic root is three and these constitute “by far the largest part of the language” (Haywood and Nahmad, 1962: 261). However, there are also two-consonant (biliteral), four-consonant (quadriliteral) (such as z-l-z-l, b-r-h-m, t-r-j-m), and five-consonant roots (quinquiliteral) (such as b-r-n-m-j).

The root is said to contain lexical meaning because it communicates the idea of a real-world reference or general field denotation (such as “writing”). It is useful to think of a lexical root as denoting a semantic field because it is within that

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7 The fact that they are abstract does not diminish the fact that they are strong psychological realities for Arabic speakers. According to Frisch and Zawaydeh (2001, 92) “there is clear psycholinguistic evidence that Arabic consonantal roots are a distinct component of the Arabic mental lexicon.”

8 I am indebted to Professor Wallace Erwin for this definition.

9 Aside from the reduplicated four-consonant root, such as w-s-w-s or h-m-h-m, which is inherently Arabic, four- and five-consonant roots can be borrowings from other languages. Some have been part of the Arabic lexicon for hundreds of years; others are recent borrowings (such as t-l-f-n “to telephone”). The Arab grammarian al-Khalil ibn Ahmad (d.791) made an extensive study of Arabic lexical roots and determined which were Arabic and which were not according to rules of Arabic phonology and phonotactics. See Sara 1991 on al-Khalil’s phonology.
field that actual words come into existence, each one crystallizing into a specific lexical item. The number of lexical roots in Arabic has been estimated between 5,000 and 6,500.\(^{10}\)

2.2 A definition of pattern

A pattern is a bound and in many cases, discontinuous morpheme consisting of one or more vowels and slots for root phonemes (radicals), which either alone or in combination with one to three derivational affixes, interlocks with a root to form a stem, and which generally has grammatical meaning.\(^{11}\)

The pattern is defined as discontinuous because it intersperses itself among the root consonants (as in the word *kaatib*).\(^{12}\) It is useful to think of it as a kind of template onto which different roots can be mapped.\(^{13}\) The “derivational affixes” mentioned in the definition include the use of consonants that mark grammatical functions, such as the derivational prefix *mu- for many participles, the prefix *ma- for a noun of place, or the relative adjective suffix */-iyy/.* Consonants that are included in Arabic pattern formation are: */ʔ/ (hamza), */t/ (ṯaːʔ), */m/ (miim), */n/ (nuun), */s/ (siin), */y/ (yaa³), and */w/ (waaw).* These consonants may be used as prefixes, suffixes or even infixes.\(^{14}\) One further component of patterning is gemination or doubling of a consonant. Therefore, the components of MSA pattern-formation include: six vowels (three long: */aa/, */ii/, */uu/; three short: */a/, */i/, and */u/); seven consonants (*ʔ, t, m, n, s, y, w); and the process of gemination.\(^{15}\)

Patterns are said to possess grammatical (rather than lexical) meaning because they signify grammatical or language-internal information; that is, they distinguish word types or word classes, such as nouns, verbs, and adjectives. They can even signal very specific information about subclasses of these categories. For example, noun patterns can readily be identified as active participle, noun of place, noun of instrument, or verbal noun, to name a few. Because patterns are

\(^{10}\) Kouloughli (1994, 60) cites about 6,500 lexical roots found in a dictionary of 50,000 lexical items. Greenberg (1950) bases his study of lexical root phonotactics on 3,775 verb roots found in Lane (1863) and Dozy (1881).

\(^{11}\) This definition is also from Professor Wallace Erwin.

\(^{12}\) There are a few patterns that consist of just one vowel (such as */a_/_a*, for example, *Harb ‘war’ or *nawm ‘sleep,’* and these patterns are not considered discontinuous. Most patterns, however, involve more than one vowel.

\(^{13}\) Patterns are sometimes referred to as “prosodic templates” or “stem templates” in discussions of morphological theory (see, e.g., Aronoff 1994, 134, Spencer 1994). For the concept of “templatic morphology” see McCarthy and Prince 1990.

\(^{14}\) Such as the ṯaːʔ infixed between the root consonants *jiim* and *miim* in the Form VIII verb *jitama* “a ‘to meet,’ for example, from the root */j-m-ʔ* ‘gathering together.’ Another example is the infixed of *waaw* in the word *shaawari*, the plural of *shaari* “street.” Again, the infix is inserted between the first and second consonants of the root.

\(^{15}\) A traditional mnemonic device for remembering Arabic morphological components is the invented word *sa’altumuuniifaa* سأتعمونيها ‘you (pl.) asked me it.’
limited to giving grammatical or intralinguistic information, there are fewer Arabic patterns than roots.

3 Word structure: root and pattern combined

Most Arabic words, therefore, are analyzed as consisting of two morphemes – a root and a pattern – interlocking to form one word. Neither an Arabic root nor a pattern can be used in isolation; they need to connect with each other in order to form actual words. A word such as kaṭīb ‘writer,’ for example, consists of two bound morphemes: the lexical root k-t-b and the active participle pattern _aa_i_ (where the slots stand for root consonants).¹⁶ When a root is mapped onto a pattern, they together form a word, “writer.” (“doer of the action of writing”). This word can then act as a stem for grammatical affixes such as case-markers. For example, the accusative indefinite suffix -an:

قابِلنا كاتبةً

qaabal-naa kaṭīb-an.

We met a writer.

Understanding the system of root-pattern combinations enables the learner to deduce or at least wisely guess at a wide range of word meanings through compositional semantics by putting together root and pattern meanings to yield a word meaning. This ultimately lightens the load of vocabulary learning.¹⁷

4 Dictionary organization

Arabic dictionaries are based on lexical roots and not word spelling.¹⁸ Instead of relying on the exact orthography of a word, Arabic dictionaries are organized by the root or consonant core of a word, providing under that entry every word derived from that particular root. The root is therefore often called a “lexical root” because it is the actual foundation for the lexicon, or dictionary. The lexical root

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¹⁶ In their work on Arabic templatic morphology, McCarthy and Prince propose separating Arabic root and pattern components into distinct “tiers” in accordance with the “Prosodic Morphology Hypothesis” (1990, 3–6).

¹⁷ It is important to note that not all Arabic word-meanings are semantically transparent, despite the rigor of the system. Many words have come to have particular connotations due to cultural, historical, and regional factors and need to be learned through use of the dictionary. (See Bateson 2003, 1–3.) For a helpful analysis of Arabic morphology as it relates to the lexicon, see Stowasser 1981.

¹⁸ The roots in an Arabic dictionary are listed alphabetically according to the order of letters in the Arabic alphabet. For example, the root k-t-f comes after k-t-b because /f/ comes after /b/ in the alphabet. Therefore, in order to find the root, one has to know the order of the alphabet. This is dealt with further in Appendix 1. This system applies to genuinely Arabic words or words that have been thoroughly Arabized. However, loanwords – words borrowed from other languages – are listed in an Arabic dictionary by their spelling. Note that pre-modern Arabic dictionaries may have alternative arrangements of the root consonants. See Haywood 1965 on the history of Arabic lexicography.
provides a semantic field within which actual vocabulary items can be located. In this respect, an Arabic dictionary might be seen as closer to a thesaurus than a dictionary, locating all possible variations of meaning in one referential domain or semantic field under one entry. See Appendix 1 for a summary of how to use an Arabic dictionary.

5 Other lexical types
5.1 Compounding into one word (naHt نحت)
Another word-formation process exists in Arabic: compounding, composing a word by conjoining other words. There are several subprocesses or variations on this procedure, and although it is not common in traditional Arabic morphology, it is used in MSA for recently coined items and for loan-translations, especially technical terms. The classic MSA example is the word ra’smaal ‘capital’ formed from conjoining the words ra’s ‘head’ and maal ‘money.’ Another example is laamarkaziyya ‘decentralization,’ from the words laa ‘no’ and markaziyya ‘centralization.’ Sometimes only part of a word is used in the compound, as in the word for ‘supersonic,’ faw-SawTiyyy, abbreviating the word for ‘above, super’ fawq to faw-, joining it with the noun SawT ‘sound,’ and suffixing the adjectival /-iyyy/ ending.19

5.2 Compounding into two words (tarkiiib تركيب)
Sometimes the lexical item created is not one single word in Arabic, but a noun phrase, such as ‘adam wujuud ‘non-existence’ or kiis hawaat ‘airbag,’ or a combined participle-noun phrase such as muta‘addid-u l-Taaf ‘multilateral.’ With the necessity for rapid translation of technical and computational terms from Western languages into Arabic, these kinds of lexical compounds have become more prevalent over the past two or three decades. See Chapter 5, section 15.2 for further detail on this type of lexical innovation.

5.3 Solid stems
Solid stems are words which cannot be reduced or analyzed into the root–pattern paradigm. They consist of primarily three sets in Arabic: pronouns, function words, and loanwords. Solid-stem words are listed in Arabic dictionaries according to their spelling.

5.3.1 Pronouns
Arabic pronoun categories include personal pronouns, demonstrative pronouns, and relative pronouns. These categories do not fit precisely into the standard root and pattern system, although they show definite phonological relationships to

19 See Stetkevych 1970, 48–55. See also Chapter 5, section 15.1.
each other within their categories, such as the relation between *haadhaa* ‘this (m.)’ and *haadhii* ‘this (f.).’

5.3.2 Function words
Another common subset of solid stems consists of Arabic function words – such as prepositions and conjunctions. These are high-frequency items, and in terms of their structure, they are usually short or even monosyllabic. For example: *fi*, ‘in; at,’ *‘ila*, ‘to, towards,’ or *wa* ‘and.’

5.3.3 Loanwords
There are also a number of words (primarily nouns) in MSA that are borrowed directly from other languages, and these are considered, for the most part, to have solid stems, e.g., they cannot be broken down into roots and patterns, such as the words *raadyu* ‘radio’ and *kumbyutir* ‘computer.’

Many proper nouns fall into this category, as well, including Middle Eastern place names such as *baghdaad*, ‘Baghdad’ and *bayruut* ‘Beirut.’ Such words are discussed at greater length in Chapter 5.

6 Inflection: an overview of grammatical categories in Arabic
The term “inflection” generally refers to phonological changes a word undergoes as it is being used in context. In English, some common inflectional categories are: number (singular and plural), tense (e.g., past, present), and voice (active and passive).

Generally speaking, Arabic words are marked for more grammatical categories than are English words. Some of these categories are familiar to English speakers (such as tense and number) while others, such as inflection for case or gender, are not. There are eight major grammatical categories in Arabic: tense/aspect, person, voice, mood, gender, number, case, definiteness. Six of these apply to verbs (tense/aspect, person, voice, mood, gender, number), four apply to nouns and adjectives (gender, number, case, definiteness), and four apply to pronouns (person, gender, number and – to a limited extent – case).

Here is a brief summary of these categories and their roles in Arabic. Details on all these topics are found as noted under specific reference points.

6.1 Tense/Aspect
Tense and aspect can be seen as two different ways of viewing time. Tense usually deals with linear points extending from the past into the future. Aspect sees the

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20 A few words borrowed from Western languages, such as “film” and “bank” fit so well into the root–pattern system that Arabic plurals have evolved for them – *afiaam* and *bunuk*, respectively.
21 These names are not originally Arabic but derive from other languages of the region such as Aramaic or Persian.
completeness of an action or state as central: is the action over with and completed, ongoing, or yet to occur? The points of view of the two terms are different: one focuses on when the action occurs and the other focuses on the action itself—whether it is complete or not. These two grammatical categories do overlap to some extent and have in practice blended into one in MSA.\textsuperscript{22}

There are two basic morphological tenses in Arabic: past and present, also called perfective and imperfective, respectively. In dealing with the modern written language, many linguists and teachers find it more pragmatic to describe Arabic verbs in terms of tense, and the terms past/present (referring to time or tense) and perfect/imperfect (referring to aspect) are often used interchangeably. There is also a future tense, indicated by prefixing either sa- or sawfa to a present tense form. Other tenses exist, such as the past perfect, the future perfect, and the past continuous, but they are compound tenses involving the use of auxiliary verbs and particles.\textsuperscript{23}

6.2 Person
Arabic verbs and personal pronouns inflect for three persons: first person (I, we), second person (you), and third person (she, he, they). There are differences with English, however, in the gender and number of these persons. For the Arabic first person (‘anaa, na’imi) there is no gender distinction. For the second person, there are five forms of “you”: masculine singular (‘anta), feminine singular (‘anti), dual (‘antuma), masculine plural (‘antum) and feminine plural (‘antunna). For the third person, there are six verbal distinctions and five pronoun distinctions: he (huwa), she (hiya), they-two masculine (humaa), they-two feminine (humaa), they masculine (hum) and they feminine (hunna). (See charts in Chapter 12.) Thus, the total number of person categories in Arabic is thirteen, as opposed to the seven of English (I, you, he, she, it, we, they).

6.3 Voice
The category of voice refers to whether an Arabic verb or participle is active or passive. Generally speaking, the passive is used in Arabic only if the agent or doer of the action is unknown or not to be mentioned for some reason. There are sets of

\textsuperscript{22} In his description of “the states (tenses) of the verb” in Classical Arabic, Wright (1967, 1:51) says:
"The temporal forms of the Arabic verb are but two in number, the one expressing a finished act, one that is done and completed in relation to other acts (the Perfect); the other an unfinished act, one that is just commencing or in progress (the Imperfect)” (emphasis in original). On the same page he gives an indication of the complexity of Arabic tense/aspect relations when he states that “The Arabian Grammarians . . . have given an undue importance to the idea of time, in connection with the verbal forms, by their division of it into the past (al-ma’a Di) the present (al-Haal or al-Haad Dir) the future (al-mustaqaal) the first of which they assign to the Perfect and the other two to the Imperfect.”

\textsuperscript{23} See Chapter 21 on verb inflection.
morphological inflections and syntactic constructions particular to the passive and these are dealt with in Chapter 38.

6.4 Mood
Mood or “mode” refers to verb categories such as indicative, subjunctive, imperative, or (in Arabic) jussive. These categories reflect contextual modalities that condition the action of the verb. For example, whereas the indicative mood tends to be characteristic of straightforward statements or questions, the subjunctive indicates an attitude toward the action such as doubt, desire, wishing, or necessity, and the imperative mood indicates an attitude of command or need for action on the part of the speaker.

The issue of mood marking is a central one in Arabic grammar (along with case marking). Moods fall under the topic of morphology because they are reflected in word structure; they are usually indicated by suffixes or modifications of suffixes attached to the present tense verb stem, and the phonological nature of the verb stem determines what form the suffix will take. The mood markers are often short vowel suffixes, for example, /-u/ for indicative and /-a/ for subjunctive.

In Arabic, mood marking is done only on the imperfective or present tense stem; there are no mode variants for the past tense. The Arabic moods are therefore non-finite; that is, they do not refer to specific points in time and are not differentiated by tense. Tense is inferred from context and other parts of the clause.

Mood marking is determined either by particular particles which govern or require certain moods (e.g., the negative particle lam requires the jussive mood on the following verb) or by the narrative context in general, including attitude of the speaker and intended meaning. See Chapters 34 and 35 on verb moods.

6.5 Gender
Arabic exhibits two genders: masculine and feminine.24 For the most part, gender is overtly marked, but there are words whose gender is covert and shows up only in agreement sequences. The gender category into which a noun falls is semantically arbitrary, except where nouns refer to human beings or other living creatures. Gender is marked on adjectives, pronouns, and verbs, as well, but is not inherent, as it is in nouns. Gender is discussed at greater length in Chapter 7.

6.6 Number
Arabic has three number categories: singular, dual, and plural. Whereas singular and plural are familiar categories to most Western learners, the dual is less

24 A very few nouns are both masculine and feminine, for example: ‘salt’ milH and ‘spirit’ ruuH (see Chapter 7 for further discussion).
The dual in Arabic is used whenever the category of “two” applies, whether it be in nouns, adjectives, pronouns, or verbs.

The concept of plural therefore applies to three or more entities. This category interacts in specific ways with the category of gender and also with a morphological category which is peculiar to Arabic: humanness. Both gender and humanness affect the way in which a noun, participle, or adjective is pluralized.

Numerals themselves, their structural features and the grammatical rules for counting and sequential ordering, constitute one of the most complex topics in Arabic. They are discussed in Chapter 15.

6.7 Case

Arabic nouns and adjectives normally inflect for three cases: nominative, genitive, and accusative. Cases fall under the topic of morphology because they are part of word structure; they are usually suffixes attached to the word stem, and the nature of the word stem determines what form the suffix will take. In general, the case markers are short vowel suffixes: -u for nominative, -i for genitive and -a for accusative, but there are substantial exceptions to this. A case-marking paradigm is usually referred to as a declension; there are eight different nominal declensions in Arabic and these are discussed in Chapter 7.

Cases also fall under the topic of syntax because they are determined by the syntactic role of a noun or adjective within a sentence or clause. To indicate roughly how the system works, the nominative case typically marks the subject role (most often the agent or doer of an action); the accusative marks the direct object of a transitive verb or it may mark an adverbial function; and the genitive is used mainly in two roles: marking the object of a preposition and marking the possessor in a possessive structure. For case roles and rules, see Chapter 7, section 5.

6.8 Definiteness: determiners

Arabic has both definite and indefinite markers. The definite marker is a word (al-) which is not independent but is prefixed to nouns and adjectives; the definiteness marker is an affix (-n), normally suffixed to the case-marking vowel on nouns and adjectives; thus, al-bayt-u (‘the house’ – nominative, definite), but bayt-u-n (‘a house’ – nominative, indefinite). The suffixed /-n/ sound is not written with the

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25 In English, there are some words that refer specifically to two items such as “both” and “pair.”

26 For example, a dipthote word such as wuzaraa ‘ministers’ will show the genitive marker as fa:Ha, not kasru, because of the nature of its morphological pattern: CuCaGaa.

27 The exceptions fall into two categories: exceptions determined by morphological rules (such as the word pattern) and exceptions determined by phonological rules (such as the rule that two vowels cannot combine).

28 Traditional Arabic grammar deals with case inflections as a category of syntax (na:Hw) rather than morphology (Sarf).
letter /n/ (nuun) but is indicated by modifying the short vowel case-marker (see Chapter 7, section 4). Whereas the definite article is visible in Arabic script, the indefinite marker normally is not.\textsuperscript{29}

7 Distribution of inflectional categories: paradigms

In terms of the distribution of the above eight categories of inflection, Arabic verbs inflect for the first six: tense/aspect, person, voice, mood, gender, and number. Nouns and adjectives inflect for the last four: gender, number, case, and definiteness. Pronouns inflect for gender, number, and – to some extent – case. Any verb, for example, can be analyzed as being marked for six categories; any noun can be analyzed for four categories and any pronoun for three. This means that word structure in MSA is complex, and that verbs have the most complex structure of all.

Grammatical paradigms are charts or frameworks for words which show all their possible inflections.\textsuperscript{30} In traditional Western grammars, there are two major divisions of paradigms: verbs and nominals (nouns, adjectives and pronouns). A verb paradigm is called a conjugation; a nominal paradigm is called a declension. Verbs are said to “conjugate” or inflect for verbal categories of tense, person, number, gender, mood, and voice. Nominals are said to “decline,” to inflect for case, number, gender, and definiteness.

The forms or phonological realizations that these categories take in any particular word are determined by that word’s membership in an inflectional class.\textsuperscript{31}

8 MSA inflectional classes

An inflectional class contains words whose inflections (either declension or conjugation) are identical, or at least highly similar.

Criteria for inflectional classes: Verbs fall into several classes by virtue of their phonological structure, which affects how they inflect (e.g., hollow verbs, defective verbs, assimilated verbs). So do nouns and adjectives (e.g., triptotes and diphtotes). In addition, nouns and/or adjectives may fall into certain classes because of their origins and etymology. In order to help learners with these many categories and the forms that they take, this reference grammar provides paradigms or

\textsuperscript{28} The exception to this is the accusative indefinite suffix -\textsuperscript{an}, which is often written into the script with an 'a\textsuperscript{al}f and two \textit{fatHAs}.

\textsuperscript{30} Carstairs-McCarthy points out that there is an abstract notion of paradigm (“the set of combinations of morphosyntactic properties or features . . . realized by inflected forms of words (or lexemes) in a given word-class (or major category or lexeme class) in a given language”) as well as a concrete one: “the set of inflectional realizations expressing [an abstract paradigm] for a given word (or lexeme) in a given language” (1994, 739).

\textsuperscript{31} I am following Aronoff’s (1994, 65) definition of inflectional class: “a set of lexemes whose members each select the same set of inflectional realizations.” Carstairs-McCarthy gives a similar definition: “a set of words (lexemes) displaying the same paradigm in a given language” (1994, 739).
inflectional charts for each inflectional class as well as descriptions of the main morphophonemic processes underlying the resulting forms.

9 Case and mood: special inflectional categories in Arabic
As can be seen in the above descriptions, there are two Arabic inflectional categories that interface with syntax: case and mood. Both of them mark this interfacing by short vowel suffixes, called in English “moods” or “modes” when they apply to verbs, and “cases” when they apply to nouns or adjectives. One of the interesting features of Arabic structure is that the nominative case (on nouns and adjectives) and the indicative marker (on verbs) are to a large extent identical: suffixed /-ul/; and the accusative and subjunctive markers are largely identical as well: suffixed /-a/.

It is important for learners of Arabic to know that in Arabic grammar these two categories are referred to as one; that is, nominative and indicative are considered one category: raf⁶ or marfu‘u⁶, and accusative and subjunctive are considered another: nasb or mansuub.

Because of these formal similarities, case and mood are treated as categories of syntax (naHw) in traditional Arabic grammar, and for very sound and compelling reasons. Moreover, there is no theoretical distinction in Arabic between case and mood. Readers who are interested in morphological theory or in studying Arabic grammar more extensively should keep in mind that Arabic sets these categories apart, and that they are of great – even central – importance in Arabic syntactic theory. One can certainly say that these two categories are closer to the syntactic level of analysis than to the semantic or lexical level.

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32 This is, of course, a generalization. Other formal realizations of these categories exist, but this is the major one.
33 See Ryding 1993 for more on this topic. See also the entries Sarf and naHw in the Encyclopedia of Islam; and Bohas, Guillaume and Kouloughli 1990, especially Chapters 3 and 4.