

Auxiliary verbs in Arabic

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0. Introduction¹

This paper discusses the treatment in Functional Grammar of auxiliaries in Arabic. An earlier attempt to account for verbs with auxiliary and copular functions in Modern Standard Arabic by Moutaouakil (1986) will be reviewed in the light of later developments in FG theory. After an outline of the verbal system in Arabic, arguments will be advanced against Moutaouakil's proposal to describe all the verbs in question as being the direct expression of predicate or predication operators.

The main point to be made concerns the special status of the verb *kāna* 'to be',² which should be distinguished from the other verbs on the basis of distribution and meaning. It will be argued that the occurrences of this verb can best be accounted for by a copula support rule that in the case of Arabic must be adapted to allow for the insertion of *kāna* in verbal sentences too. The operation of such an "auxiliary support rule" will be demonstrated with examples from Modern Standard Arabic and from some of the spoken dialects of Arabic.

With respect to the other auxiliary verbs, it will be questioned whether they are all grammaticalized to the extent that their insertion should be captured by expression rules. A more differentiated approach will be advocated by positing alternative solutions.

1. The verbal system in Arabic

1.1. The Arabic language

The Arabic language group contains many dialects without a standardized written form. There is a formal language, called Modern Standard Arabic, which is practically uniform throughout the Arab world and quite close to Classical Arabic, the old literary form which is associated with the early Koranic tradition.

The contemporary spoken dialects as a group are called New Arabic. The New Arabic dialects are learned as native languages and are used in informal situations. Modern Standard Arabic is taught in school for written and formal communication.

1.2. The opposition between prefixed and suffixed verb forms

In all varieties of Arabic, there is a basic morphological opposition between two sets of verbal forms. In the first set, inflection for person, number and gender is achieved by adding suffixes to a stem. The forms in the other set consist of a stem with a prefix, or, for some person, gender and number combinations, a circumfix. All verbs³ can be inflected in both ways.

Most grammarians have described the main function of this opposition in terms of being either aspectual or temporal,⁴ and the forms have been called “preterite and future”, “perfective and imperfective”, and “completed and uncompleted”, to name but a few. In this article I will use the neutral terms “suffixed form” (SF) and “prefixed form” (PF) to avoid the confusion that arises from a functionally based terminology.⁵

In fact, the description of the functions that the two main verb forms may fulfil is not limited to the domain of tense and aspect alone. Beeston (1968: 48–49) recognizes three levels of differentiation:

- aspectual: “the perfect [SF] points to a single action, regarded as instantaneous in its occurrence [perfective], the imperfect [PF] to habitual or repeated action, or to one visualized as covering a space of time [imperfective]”
- temporal: “the perfect points to past time, the imperfect to present or future time”
- modal: “the perfect points to a fact, the imperfect to a conceptual idea not necessarily realized in fact”

Even this semantic classification does not account for all the functions involved, like for instance the expression of wishes with the SF in Classical Arabic and Modern Standard Arabic, and the obligatory use of this form in the protasis of most types of conditional sentences.

1.3. The subdivisions of the PF

In Classical Arabic and Modern Standard Arabic a further subdivision of the PF is achieved by different endings: *u* for indicative, *a* for subjunctive, and the absence of a short vowel for jussive forms.⁶ There is also an optional preverbal future marker *sawfa* or *sa-*, used with the indicative PF.

The New Arabic dialects have PFs without such different endings, but most of them do have a pair of preverbal markers to indicate tense, aspect or mood distinctions. The meanings and forms of these preverbal markers are not necessarily the same for the individual dialects.

In Colloquial Egyptian Arabic, for instance, the preverbal marker *bi-* expresses progressive or habitual aspect. The preverbal marker *ḥa-* is used to indicate prospective aspect or future tense. In most Moroccan dialects the preverbal markers *ka-* (or *ta-*) and *ḡadi-* (*ḡa-*) cover more or less the same values.

Although the way in which the PF is further differentiated creates a rather sharp distinction between Classical Arabic and Modern Standard Arabic on the one hand, and the colloquial dialects on the other hand, the general set-up of the verbal systems is essentially the same.

1.4. Simple verb forms

For all varieties, there are only a few simple verb forms.⁷ If they occur without auxiliaries or particles that emphasize the intended meaning, their interpretation is dependent on the context. In sentences (1a) and (1b) from Classical Arabic, the intended time references are made explicit by the adverbials *min qablu* ‘before’ and *yawma l-qiyāmati* ‘the Day of Resurrection’ (which is supposed to be located in the future).

Classical Arabic (Fischer 1972; Koran 2: 91)

- (1) a. *lima taqtulūna l-'anbiyā'a min qablu?*
 why kill:PF.2mp the prophets before?
 ‘Why did you use to kill the prophets before?’

Classical Arabic (Comrie 1976; Koran 2: 113)

- b. *llāhu yahkumu bayna -hum yawma l-qiyāmati ...*
 God judge:PF.3ms between them day resurrection ...
 ‘God will judge between them on the Day of Resurrection...’

In both sentences we have prefixed forms, but their interpretation is different. In (1a), the adverbial situates the predication in the past, so the PF (which refers to nonpast on the temporal level) is not used to indicate time reference. It has to be interpreted on the aspectual or modal level and is here taken to be the expression of imperfective aspect, pointing at habitual action.

In example (1b), the intended time reference as indicated by the adverbial and the interpretation of the verb form on the temporal level are compatible. Interpretations on the modal (not presented as a fact) or aspectual (ongoing or habitual/repeated action) level seem to be less likely.

It should be noted that the obligation to express a certain category is hard to define, owing to differences in style and discourse type. Within the tem-

poral category present time reference is not necessarily expressed, but past and future tense generally are, at least in Modern Standard Arabic and most New Arabic dialects.

1.5. The relation between meaning and form

From the above description of the verbal system in Arabic it will be obvious that simple verb forms do not have a specific meaning that can be established without considering the context. Although all the different functions of one verbal form could be accounted for by postulating a rather vague unified semantic interpretation, like, for instance, “closedness” for the SF, I will not try to do so, and take the position that the use of these forms can best be described in the way Dik (1989: 302) proposed for verbal categories which serve a variety of purposes.

Dik (1989: 300–303) distinguishes three types of morphosyntactic operators (μ -operators) that together determine the form of an expression by applying rules of the format:

$$(2) \quad \text{Operator}[\text{Operandum}] = \text{Value}$$

Primary μ -operators are present in the underlying clause structure and have a direct semantic interpretation. Auxiliary μ -operators do not occur as such in the underlying clause structure, but are introduced by expression rules in order to trigger later expression rules. These auxiliary μ -operators serve to express a variety of semantic relations, but have a unified formal effect on their operandum. Contextual μ -operators are primarily used to capture agreement relations.

According to Dik, verbal categories such as “infinitive”, “present participle” and “subjunctive”, that appear to have no specific unified meaning, are best accounted for by auxiliary μ -operators. They first translate a semantic category, like for instance Progressive Aspect, into the verbal category “present participle”, and then proceed to effectuate the corresponding formal inflection.

In the case of Arabic, different predicate, predication, proposition and illocutionary operators (π -operators) in the underlying clause structure may be expressed through the same verb form. I will therefore consider these primary operators to get their expression through auxiliary μ -operators, that first assign a formal category (SF or PF) to the semantic value of a π -operator, and then apply the expression rules corresponding to this formal category.

One of the theoretical implications of this approach is that I consider the SF and PF to be ambiguous rather than vague. So instead of presupposing one meaning with different “implicatures” according to the context, I assume that there are conceptually different meanings in the clause structure which eventually get the same expression. I take the same position with respect to New Arabic verb forms like the *bi*-PF in Colloquial Egyptian and the *ka*-PF in Moroccan Arabic, which also may have two or more different meanings.

Some of the ambiguity inherent to the main verb forms in Arabic is avoided by using verbal complexes, in which two or even more verbs form one predication. This paper is dedicated to a functional description of the auxiliary verbs that may occur in these verbal complexes.

2. Verbal complexes in Arabic

2.1. Auxiliary verbs

In Arabic, the information about person, gender and number of the first argument term is coded in each verbal form, whether this term is overtly expressed, as in sentences (1b) and (3), or not, as in (1a), (4) and (5). In all varieties of the language it is possible to form complex predicates with more than one verb. The first verb (and in complexes with three verbs also the second) has to be taken from a restricted class of auxiliary verbs, and all forms are inflected for person, number and gender.

The cross-reference relations between the verb forms in a complex construction suggest a certain degree of (morphological) independence. In fact, a formal analysis in which the verbal complex is syntactically interpreted as a matrix predicate with a complement or adverbial clause could be defended in all cases. For reasons to be discussed later, such an analysis will be favored for some combinations. Complex forms with the verb *kāna* ‘to be’, however, are always considered to represent one syntactical unit, consisting of a predicate (the last verb) with an auxiliary.

2.2. Combinations with *kāna*

The most frequently used verbal complexes involve a form of the verb *kāna* ‘to be’. Both the SFs and PFs of the verb *kāna*, and in the New Arabic dialects also PFs of *kāna* with a preverbal marker, may be combined with inflected forms of another verb. In sentences (3), (4) and (5) I have repro-

duced examples with an SF of *kāna* in Modern Standard, Egyptian and Moroccan Arabic.

Modern Standard Arabic (Beeston 1970)

- (3) *kānat al-mahkamatu tajlisu kulla yawm*
 be:SF.3fsg .the-court sit:PF.3fsg every day
 ‘The court used to sit daily.’

Egyptian Arabic (Hinds–Badawi 1986)

- (4) *kān samal il-wāgib lamma ruḥti-l-u*
 be:SF.3msg do:SF.3msg the-homework when go:SF.1sg-to-him
 ‘He had done his homework when I went to see him.’

Moroccan Arabic (Harrell 1966)

- (5) *elaš ma-kanet-š ka-tehder meš-h?*
 why NEG-be:SF.3fsg-NEG PM1-talk:PF.3fsg with-him
 ‘Why wasn’t she talking to him?’
 (PM = preverbal marker)

In these examples, the SF of *kāna* puts the main proposition in the past, while the form of the second verb (the lexical predicate) specifies an aspectual value. Before further investigating the use of *kāna* as an auxiliary, we now turn to a discussion of the functions of this verb as a copula and its treatment in FG.

2.3. The treatment of *kāna* as a copular verb in FG

In Arabic, sentences with a nonverbal predicate are not expressed with an equivalent of the English verb “to be” when they refer to the Present and are neutral with respect to the aspectual and modal distinctions relevant to the specific variety of the language. So a simple statement with an adjectival predicate like “intelligent” can be expressed as in (6):

Modern Standard Arabic (Moutaouakil 1986)

- (6) *hind-un dukīy-at-un*
 Hind-NOM intelligent-f-NOM
 ‘Hind is intelligent.’

If there are temporal, aspectual, or modal distinctions to be made, a copular verb will be added, resulting in a sentence like (7):

Modern Standard Arabic (Moutaouakil 1986)

- (7) *kānat Hind-un dukīy-at-an*
 be:SF.3fs Hind-NOM intelligent-f-ACC
 ‘Hind was intelligent.’

the first effort to account for the use of *kāna* as a copula in Modern Standard Arabic within the theoretical framework of FG resulted in the following rule:⁸

- (8) Copula support in Arabic:
input: π predicate _{β} (x₁) (x₂)... (x_n)
conditions: π = Past, Future, Generic (Temps-zéro)
 β = Nominal, Adjectival, Adpositional, Adverbial
output: π *kāna*_v predicate _{β} (x₁) (x₂)... (x_n)

This rule was introduced and later abandoned by Moutaouakil (1986: 2), who felt it was insufficient for the following reasons:

- (i) the insertion of the verb *kāna* is not only sensitive to the temporal operator, but also to the aspectual operator;
- (ii) other copular verbs can appear in nonverbal constructions to express different combinations of temporal and aspectual operator values.

He subsequently formulated a new set of expression rules to account for the insertion of *kāna* and the use of several other verbs with copular and auxiliary functions. In section 2.4. some characteristics of these other verbs will be discussed.

2.4. The defective verbs

Traditionally, Arab grammarians classified verbs with copular and auxiliary functions in a group, which they referred to as *kāna wa akawātuhā* ‘*kāna* and its sisters’. Apart from *kāna* itself, this group contains the verbs *laysa* ‘not to be’,⁹ *šāra* ‘to become’, and three subgroups of three or more phasal aspect modifying verbs each, with meanings like ‘to become’, ‘to remain’ and ‘not to cease’.

Although most of these verbs can also function as full (independent) verbs, their most common use is “incomplete”, in the sense that they occur in complex constructions with another verb or with a nonverbal predicate. As such, their lexical meaning is reduced, or empty.

If a nominal or adjectival predicate is associated with one of the verbs in this group, it has to be marked for the accusative case (as opposed to the nominative case, which would have been used in the absence of such a verb). Apart from this characteristic inflection there are no formal signs of complementation.

In sentence (9) we see an example with one of the sisters of *kāna* and a verbal predicate:

- Modern Standard Arabic (Moutaouakil 1986)
- (9) *'aṣḥaba* *kālidun* *yaktubu* *al-qiṣaṣ*
 become:SF.3msg Kālid write:PF.3msg the-stories
 'Kālid has started to write stories.'

As I already mentioned in 2.1., both verb forms are inflected to agree with the first argument term *kālidun*.

The occurrence in constructions with a verbal predicate is characteristic of two other groups of verbs (meaning 'to be about' and 'to begin'), that, together with *kāna* and its sisters, are called *al-afṣālu an-nāqiṣah* 'the incomplete or defective verbs'. Except for *kāna*, which may be combined with any other verb form (see section 2.2 sentences (3), (4) and (5)), the defective verbs usually form constructions with a verb in PF.

As stated in section 2.3. above, the similarities between the verb *kāna* and the other defective verbs led Moutaouakil to abandon the copula support rule as in (8) in order to integrate it with the expression rules he devised to account for the insertion of the other "copular" verbs.

2.5. The treatment of the defective verbs in FG

According to Moutaouakil (1986: 5–7), the aspectual values relevant to Modern Standard Arabic are perfective and imperfective. The imperfective is further differentiated by the operator values inchoative (continuous or non-continuous), durative (habitual or iterative), nonachieved (in the sense of still going on) and "approximative" (immediate prospective). The temporal operator may assign the values present, past and future, the past being further subdivided into absolute and relative past.

As it is of little avail to the current discussion of the treatment of the defective verbs in FG, the adequacy of this classification will remain unquestioned. I will give two examples to show how this classification is used in the expression rules that Moutaouakil formulated to account for the interaction of temporal and aspectual values.

Moutaouakil (1986: 9) states: "Le prédicat verbal auquel est associée la catégorie aspectuelle du "Perfectif" prend la forme de l'Accompli lorsqu'il est au "Passé absolu" ... et la forme de l'Accompli à laquelle est adjoint le verbe auxiliaire *kān* ... lorsqu'il est au "Passé Relatif". (The verbal predicate which is associated with the aspectual category Perfective takes the SF when

it is in the Absolute Past, and the construction with the SF and the auxiliary verb *kāna* when it is in the Relative Past.)

On this basis he formulates the following rules:

- (10) a. input: [Perf[AbsPast[pred_v(x¹)...(xⁿ)]]]
 output: [SF-pred_v(x¹)...(xⁿ)]
 b. input: [Perf[RelPast[pred_v(x¹)...(xⁿ)]]]
 output: [kāna-SF-pred_v(x¹)...(xⁿ)]

These rules are supposed to account for the different forms of the predicate in sentences (11a) and (11b).

Modern Standard Arabic (Moutaouakil 1986)

- (11) a. *najaḥat Zaynab-u*
 succeed.SF.3fs Zaynab-NOM
 'Zaynab has succeeded.'
 b. *sa'ueṣru-ka l-kitāba ḡadan 'id*
 FUT-lend:PF.1s-you the book tomorrow because
sa'akūnu 'anhaytu qira'ata-hu
 FUT-be:PF.1s finish:SF.1s reading-his
 'I will lend you the book tomorrow as I will have finished reading it then.'

When the predicate is characterized aspectually by the categories imperfective, inchoative and noncontinuous, it is realized with the PF and one of the auxiliary verbs of the group of *šaraʿa* 'to begin': *šaraʿa*, *tafiqa*, *bada'a*, and *jaʿala*. It is realized in this form, whether it is in the past (12a), present (12b), future (12c) or generic (universal) tense (12d).

Modern Standard Arabic (Moutaouakil 1986)

- (12) a. *šaraʿa kālīd-un yaktubu r-risālata*
 begin:SF.3ms Kālīd-NOM write:PF.3ms the-letter
 'Kālīd began to write the letter.'
 b. *yašraʿu kālīd-un yaktubu r-risālata*
 begin:PF.3ms Kālīd-NOM write:PF.3ms the letter
 'Kālīd begins to write the letter.'
 c. *sa-yašraʿu kālīd-un yuḡarriru maqāla-hu ḡadan*
 FUT-begin:PF.3ms Kālīd-NOM edit:PF.3ms article-his tomorrow
 'Kālīd will begin to edit his article tomorrow.'

- d. *yaṣraʕu t-talj-u yadūbu fi r-rabīʕi*
 begin:PF.3ms the-snow-NOM melt:PF.3ms in the-spring
 ‘The snow begins to melt in the spring.’

The rule which is responsible for the form of the predicate in this type of constructions is formulated by Moutaouakil (1986: 13) as in (13):

$$(13) \quad \text{input: } [\text{Imperf}[\text{Inch}[\text{NonCont}[\left. \begin{array}{l} \text{Past} \\ \text{Present} \\ \text{Future} \\ \text{T } \emptyset \end{array} \right\} [\text{pred}_v(x^1)\dots(x^n)]]]]]$$

$$\text{output: } \left[\left. \begin{array}{l} \text{ṣaraʕa} \\ \text{ṭafiqa} \\ \text{bada'a} \\ \text{jaʕala} \end{array} \right\} \text{PF-pred}_v(x^1)\dots(x^n) \right]$$

The other rules are built in the same way, and although there remains of course much more to explain, it will be clear from the examples that according to this later proposal the verb *kāna* as well as the other defective verbs are all inserted through the direct mapping of operator values to corresponding (complex) forms in the expression component.

In my opinion, this introduction of a rather large number of expression rules does not do justice to the special characteristics of *kāna*, which distinguish this verb from the other members of the defective group. In the following section I will enumerate some of the most important differences and discuss how they can be accounted for in the FG model.

3. Another approach to the Arabic auxiliaries in FG

3.1. The differences between *kāna* and other defective verbs

First of all, *kāna* is the only verb which can be said to be lexically empty. It may be used freely, without considering the semantic features of the State of Affairs (SoA) designated by the predicate it supports. The other defective verbs do add certain aspects of meaning to the verbal complexes they form, and for each of them individual selection restrictions need to be formulated to guarantee semantic compatibility with the lexical predicate.

The verbs *jaʕala* ‘to make’, and *bada'a* ‘to begin’ from rule (13), for instance, can both be used in complex constructions to mark the beginning of an SoA that is not necessarily still going on at the moment of speech (or

other reference point). The verb *jaʕala* ('to make'), however, can as a defective verb only be combined with an SoA that is conceived of as [+ control], i. e. the first argument must have the power to determine whether this SoA will obtain or not. The verb *bada'a* ('to begin') is not sensitive to this feature, and may form complexes with SoAs that are either [+control] or [-control].

A second significant difference is, that *kāna* may be combined with verbs in all possible forms, whereas the inflection of verbal predicates in construction with the other defective verbs is limited to the PF. The defective verbs may themselves occur in the SF, and can even be preceded by a form of *kāna*, like in sentence (14):

- Modern Standard Arabic (Messaoudi 1985)
- (14) *kāna* *'akada* *yastaš'iru* *rāḥatan...*
 be:SF.3ms start:SF.3ms feel:PF.3ms rest
 'He started to feel at ease...'

As would be expected on the basis of these differences, complex forms with *kāna* are much more frequent than combinations with any of the other defective verbs. In her analysis of a text in Modern Standard Arabic, Messaoudi (1985: 175) found 360 combinations with *kāna*, whereas 15 other auxiliary verbs together were responsible for 315 complex forms.

A final remark concerns the uniqueness of *kāna*, in the sense that this verb has no synonyms. When a form of *kāna* is used, it can not be replaced by another auxiliary verb without altering the meaning of the sentence. The other defective verbs all belong to smaller subgroups of verbs with about the same meanings and functions, and are as such often interchangeable.¹⁰

This interchangeability is reflected in the output of rule (13), where a choice can be made between four verbs meaning 'to begin'. Moutaouakil (1986) opted for the same solution in the expression rules for the other defective verbs: the first position in the output rules is always occupied by two or more verbs between braces. I think that the differences between *kāna* and the other defective verbs should have consequences for their representation in FG. According to Moutaouakil's proposal, all verbs with copular and auxiliary functions are considered to be the direct expression of an operator value. The verb *kāna*, however, is only a mediator which makes the expression of an operator possible by its ability to be inflected. The most powerful way to account for a verb with such an intermediary function in FG is through a general copula support rule, which in the case of Arabic may be extended to include auxiliary support too.

3.2. A general auxiliary support rule

The conditions that motivate the use of *kāna* with nonverbal predicates may also occur in structures with verbal predicates. In sentences with nonverbal predicates, the expression of one single TMA value already involves the insertion of a copular verb. With verbal predicates, the necessity to insert a supportive verb only comes up when there are more TMA values that have to be expressed through verbal inflection.

The following principles would account for “auxiliary support” in these cases:

- (i) only one distinction of tense/mood/aspect can be expressed on a verb by inflection;
- (ii) therefore, if two distinctions are to be expressed at the same time a supportive auxiliary is needed;
- (iii) the distinctions that are closest to the stem in underlying clause structure have priority for being expressed on the lexical verb, thus forcing the “outer” operator value to be expressed on the auxiliary.

This last principle is a reflection of the “projective” nature of the expression of grammatical operators, within the FG model represented in a language-independent hierarchical layering of TMA categories. For the relative positions of π -operators in the model I refer to Hengeveld (1989) and Dik (1989: 56–60). See also Dik’s article on verbal complexes in this volume for a detailed description of the “projectivity principle”.

For an illustration of how these three principles together account for the formation of verbal complexes with the auxiliary *kāna* we may look at the examples in section 2.2. In sentence (3), two operator values are expressed, namely Past Tense and Habitual Aspect. We assume the aspectual operator value Habitual to be closer to the verbal predicate *jalasa* ‘to sit’ in the underlying clause structure than the temporal operator Past.¹¹ This means that this “inner” operator value will be handled by the auxiliary μ -operators (see section 1.5.) in the expression component first. The μ -operators “translate” the value Habitual Aspect to the inflectional category PF, and the as yet uninflected verb is coded to get the PF agreement affixes later, when the contextual μ -operators will do their work.

Now that the inflectional code corresponding to the aspectual value Habitual Aspect has been assigned to the lexical predicate the temporal value Past Tense will be handled by the expression rules. As this value is also expressed through verbal inflection the auxiliary μ -operators search for an uncoded verb first. This operation fails, because the verb *jalasa* (‘to sit’) already received a PF code. The inability to assign the inflectional code corresponding to Past

Tense triggers auxiliary support. After the insertion of *kāna*, this second part of the procedure is repeated, and the supportive verb *kāna* is coded for the inflectional category SF.

Sentence (4) shows two SFs, one to mark Past Tense and another to indicate Perfective or Perfect Aspect. Although it is not relevant for the expression of this sentence, I assume that the expression rules operate on the underlying clause structure in the same order. They assign the SF code associated with the aspectual operator to the lexical verb first and use the intermediary function of the supportive verb *kāna* to assign the second SF code corresponding to the temporal value.

The same principles account for the occurrence of *kāna* in sentence (5) from Moroccan Arabic. In the expression component the auxiliary μ -operators determine that Habitual Aspect is to be expressed by inflecting a verb according to the PF with a preverbal marker *ka-* (the *ka*-PF). They successfully assign this inflection to the verbal predicate and look for a next operator value. This turns out to be Past Tense, which also needs to be mapped on a verb. The auxiliary support rule is triggered and provides for the verb *kāna*. This verb is then coded to be inflected with suffixes.

One of the advantages of the principles discussed here is that we are now able to account for the different meanings of pairs of verb complexes like in (15) without formulating special rules for all possible combinations.

Egyptian Arabic

(15) a. SF + bi-PF / bi-PF + SF

- kān biyiktib* – ‘he was writing’ or ‘he used to write’
biykūn katab – ‘he usually has written’ (at a certain recurring reference point)

b. SF + ḥa-PF / ḥa-PF + SF

- kān ḥayiktib* – ‘he was going to write’
ḥaykūn katab – ‘he will have written’

c. bi-PF + ḥa-PF / ḥa-PF + bi-PF

- biykūn ḥayiktib* – ‘he usually is about to write’ (at a certain recurring reference point)
ḥaykūn biyiktib – ‘he will be (habitually) writing’

The interpretation of these complexes is always in line with the projectivity principle. If we accept that the number of operator values that have to be expressed by verbal inflection and the order in which they are dealt with by the expression rules determine whether a certain value will be expressed on the lexical predicate or on the auxiliary *kāna*, we don’t need to make strong

statements like “tense is always expressed on the auxiliary and aspect on the predicate” (see for instance Jelinek (1981: 29)), that have to be mitigated later.

In this section I showed that both the auxiliary and copular functions of the verb *kāna* can be accounted for by a supportive device which is sensitive to the absence of an uninflected verb form and the presence of an operator value which has to be expressed through verbal inflection. In this way, it is not the operator value itself that is directly responsible for the insertion of *kāna*, although it does determine its inflectional form.

3.3. The representation of the other defective verbs

In section 3.1. I argued that the differences between *kāna* and the other defective verbs should be reflected in their treatment in FG. If we accept the general auxiliary support rule as described in 3.2. for the insertion of forms of the verb *kāna* only, and conceive of the other defective verbs as the direct expression of operator values, such a different treatment is established.

In this case, the verb *kāna* would be accounted for by the support rule, triggered by auxiliary μ -operators, whereas the other defective verbs would be associated with primary μ -operators. The primary μ -operators assign the PF code to the verbal predicate (if present) and introduce the as yet uninflected and uncoded defective verb corresponding with the specific operator value.

The form of the defective verb may be influenced by an “outer” operator. This is reflected in rule (13), where the form of the verb from the defective group is not fixed. It can be used to express one of the temporal or modal values indicated in the input phrase. In fact, the defective verb can be said to take over this function from the lexical verb, which now obligatorily carries the PF code.

With nonverbal predicates, the insertion of one of the defective verbs provides for an opportunity to express operator values that would not be available without this verb. As such, they have a copular function similar to the verb *kāna*. It should be noted again that this is never their primary function. If there is no other operator value that needs to be expressed, the defective verbs are usually inflected with suffixes.

Although this description seems to be convenient with respect to the desired differentiation between *kāna* and the other defective verbs, there are some problems that remain to be solved. A first problem concerns the supposed interchangeability of some of the verbs.

Except for the one that conditions the insertion of *laysa* 'not to be', Moutaouakil's rules leave a choice to be made between the verbs in a subgroup. Since these rules are supposed to apply autonomously in the expression component, this solution requires full synonymy between the alternatives.

I already mentioned a difference in the use of the verbs *jaʕala* and *bada'a*. When followed by a verb in PF, they both mean 'to begin to', but the former with the strong association of 'to set out to', and the latter with the possible translation of 'to set in' (see Wehr 1961: 127, 44).

In the other groups we also find different shades of meaning, for instance between *'istamarra* and *baqiya*. Both verbs are used with the meaning of 'to continue to', but *'istamarra* has a connotation of persistence that *baqiya* does not have. Although further investigation is needed, I assume that these differences can not be accounted for by predicate operators.

A second problem is that many verbs that may be combined with a verbal predicate in the PF are not classified in the defective group. Some of them are quite common and may even be more frequently used in complex constructions than defective verbs are. The verb *eāda* 'to return', for instance, may form a construction with a PF with the specific meaning of 'to resume (an activity)'. The verb *rāda* 'to go' could be added to the group of verbs in (13), because it is also translated with 'to begin, set out to do' if combined with a following PF.

Considering these two points, I think there are reasons to question the adequacy of a representation in which all the defective verbs are taken to be the expression of a predicate operator value. For some of them, it would be very hard to come up with special characteristics which set them apart from "normal" verbs, that also may have a predication as a complement. The verbs *bada'a* 'to begin', *baqiya* 'to remain, stay, continue to be', and *kāda* 'to be on the point, be about', for instance, apparently have no reduced meaning in their functions as defective verbs in Modern Standard Arabic.

Even the verbs that do have a less specific meaning in their defective use are, in this respect, not different from some of the verbs outside the defective group that may have a reduced meaning in combinations with another predicate too. For all these verbs, inside and outside the special defective group, we may consider formulating predicate formation rules that operate in the fund. If we do so, we avoid the problem associated with the choices to be made between several verbs conveying more or less the same meaning. In this part of the model there is no objection to different selection possibilities.

Whether this is the best option, however, has to be investigated for each verb in all varieties of Arabic separately. In his work on the auxiliarization of the English modals, Goossens (1987: 139–140) discusses some criteria that may help to decide which representation is most adequate.

3.4. A grammaticalization scale

On the basis of his detailed investigation of the diachronic development of English modal verbs, Goossens (1987: 118–119) proposed to relate the degree of grammaticalization¹² of a given construction to a differentiation in the way it is represented in the underlying clause structure.

Within FG, he found that an increase in grammaticalization could be reflected by a scale as in (16).

(16) full predicates < predicate formation < predicate operators

Although he explicitly states that this three-point grammaticalization scale is not refined enough, Goossens demonstrated its usefulness for a first differentiation between complex constructions that are not grammaticalized at all (full predicates), constructions that are grammaticalized to a certain degree (predicate formation), and fully grammaticalized combinations (predicate operators).

The following conclusions of Goossens' (1987: 139–140) may be relevant for an analysis of auxiliarization in Arabic:

- (i) In deciding the choice between independent predicate status or predicate formation for a modal verb a crucial argument appeared to be whether the modal verb brings along its own argument structure (in which case we take it to be an independent predicate) or whether a combining predicate ... imposes its argument structure on the whole combination (this gives rise to treatment under predicate formation).
- (ii) To assign predicate operator status to a given modal it should, in addition to the fact that it does not have an argument structure of its own, be used in specific grammatical functions such as the expression of tense, the marking of certain types of subclauses and the like.
- (iii) ... it [the grammaticalization scale] appears to correlate with a decreasing specificity in the (semantic) combinatorial possibilities for the item that can be shown to develop from independent predicates to the other end of the scale.

The information on defective and other verbs in grammars and dictionaries of Arabic is not detailed enough to support anything more than the general remark that the defective verbs in Classical Arabic and Modern Standard Arabic seem to be partially grammaticalized, if at all. Whether a certain verbal complex is best classified as a full predicate with a complement, or

should be seen as derived by a predicate formation rule, can only be determined after the detailed investigation of a corpus, in the way Goossens did with the English modals.¹³

In the New Arabic dialects, we find much more variation with respect to the degree of grammaticalization of verbal complexes, and the need to differentiate between at least three representations in the underlying structure is felt more strongly than in Classical Arabic and Modern Standard Arabic. Again, further investigations of the subject will have to confirm the relevance of such a differentiated approach to verbal complexes in Arabic.

4. Conclusions

In this paper I stated that the general supportive functions of the verb *kāna* in all varieties of Arabic can best be represented in Functional Grammar by a copula support rule adapted to account for its use in verbal sentences too.

The other verbs with auxiliary and copular functions should be analysed individually to determine their position on a “grammaticalization scale” and to decide how they can best be incorporated into the FG model.

Notes

- 1 This article has profited considerably from the detailed comments and suggestions of Simon Dik and the editors of this volume. I am furthermore grateful to Casper de Groot, Kees Hengeveld, and Hella Olbertz, who helped me shape my ideas on the subject.
- 2 In accordance with the generally accepted conventions the cited form of the verb is the 3rd person singular masculine of the suffixed verb form (SF). In this article, the Modern Standard Arabic form *kāna* is meant to refer to the equivalents of this verb in the spoken dialects too, although the phonetic realizations may vary.
- 3 Except for the verb *laysa* ‘not to be’, see also note 9.
- 4 For a survey of the literature on the subject I refer to Aartun (1963), Kharma (1983) and Messaoudi (1985).
- 5 Neutral terms are also preferred by Cohen (1989): “cs” and “cp”, Kharma (1983): “1.S.F.” and “2.S.F.” and Messaoudi (1985): “Fs” and “Fp”. The 3rd person masculine forms of the verb ‘to do’, *faʿala* and *yafʿalu*, are also commonly used to indicate the two forms.
- 6 The forms that are marked by a prefix and a suffix have other endings for the indicative, subjunctive and jussive inflections.
- 7 A full description of the verbal system in Arabic would have to include the imperative and active participle forms. As the present discussion of auxiliary verbs can do without these forms, they are left out to avoid unnecessary complexity.
- 8 I adapted the notation slightly to fit the general schema in Dik (1989).
- 9 The verb *laysa* can only be inflected with suffixes and is used for the negation of predications with present time reference.

- 10 This is not true for the verb *laysa* 'not to be', which has no synonyms, like *kāna*. The verb *laysa*, however, has only one function (see also note 9), whereas *kāna* has many.
- 11 This assumption is not based on Hengeveld's classification. He considers both Tense and Quantificational Aspect to be predication operators (π_2 -operators). Dik (this volume) states, that the projectivity principle should also hold for the different operator categories that may be ordered inside one of the layers.
- 12 Goossens measured the degree of grammaticalization by using six parameters, defined by Lehmann (1982).
- 13 See also Olbertz (1989) for a discussion of the criteria involved.

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