A Syntactic Analysis of Arabic Tense and Aspect

Abdullah S. Al-Dobaian*

Department of English and Literature, College of Arts, P.O. Box 2456, Riyadh 11451, King Saud University, Saudi Arabia

Corresponding Author: Abdullah S. Al-Dobaian, E-mail: maliknabi@hotmail.com

INTRODUCTION

Tense and aspect have got little attention in Arabic syntax. This study explores the problems of morphological view of early Arab linguists of tense and aspect. More specifically, the discussion of tense has been based on the traditional analysis of Arabic morphology of the verb dividing tense into two basic morphological forms: fa‘al and yaf‘al. Fa‘al is used for the past tense while yaf‘al deals with the present and the future. As discussed below, even though the Arabic verb fa‘al and yaf‘al are particularly specified with these marked tenses but can be identified with other tense types as well.

Aspect on the other hand has received a sporadic analysis relating it to the morphological verb. That is, the past tense fa‘al involves a completed event while yaf‘al suggests a non-completed event. However this clear-cut distinction may not be maintained as I explain below. This paper aims at providing a syntactic analysis of aspect and tense within the minimalist program. More specifically I provide a syntactic account explaining that tense and aspect are syntactically computed by means of the verb’s interaction with its arguments within the VP. The verb checks its aspect and tense features in Asp and T heads respectively.

This paper is organized as follows. The second section explains the traditional analysis of tense and aspect in Arabic syntax. Then the modern studies are reviewed. In the fourth section, I provide a syntactic account of tense and aspect. Finally a conclusion summarizes the basic points of the paper. Below is a list of the used abbreviations: 3=third person, 2=second person, 1=first person, acc=accusative, nom=nominative, gen=genitive, juss=jussive, objective pro=objective pronoun, neg=negation, s=singular, p=plural.

THE TRADITIONAL ANALYSIS OF ARABIC TENSE AND ASPECT

In this section, I review the analysis of the early Arab scholars of tense and aspect in Arabic. Then I discuss one of the orientalist’s studies. Finally I refer to the problems of the tense theory of early Arab scholars.

The Traditional Theory of Arabic Tense

Tense in classic Arabic theory is viewed as an integral part of the verb form involving an event with time (Almalaax 2009: 31). Based on this morphological view of tense, Sibawayhi assumes that the tense is tied to the verb form and every form...
has its own specified tense. Therefore the form faʿal represents an event in the past as darsa. The past explains an action/event that has passed or in its terms ‘ma maḍa’. yafav reports the present tense or in Sibawayhi’s terms ‘ma huwa kaa?in’ as in yaqti. The command reports an event that has not yet occurred and is expected to happen in the future, or what Sibawayhi’s terms ‘ma lam yaqaṭi’ as in ?udrus (Sibawayhi 1988, Vol. 1: 12). To prove his point, Sibawayhi (1988, Vol. 1: 25) observes that the past is only compatible with the past adverb ?ams as in (1a) while yadan is consistent with the future as in (1b):

   came-1sm-objective pro yesterday/*tomorrow.
   I came to you yesterday/*tomorrow.

   will come-1s-objective pro yesterday/*tomorrow
   I will come to you *yesterday/tomorrow.

Ibn Ya?fis adopts the temary tense distinction of the Arabic verb and assumes that the verb distinctively associates an event with time. More specifically, he discusses the role of speech time and the event time in the determination of tense (Ibn Ya?fis, no date, Vol 7: 4). That is, the past tense is an event whose time had existed prior to the speech time while the future is an event that has not occurred yet and is reported to happen after the present moment or moment of speech. The present time, in Ibn Ya?fis’s view, represents a simultaneous correspondence between the event time and the speech time.

Alzajaajii (1974: 86-87) focuses primarily on the past and the future tense. According to Alzajaajii, the past event passes by two times: the event time and the speech time. In other words, the event has already happened (i.e., the event time) and is being reported that such event had existed prior to the present moment of speech (i.e., the speech time). The future has not existed yet; thus no time has passed. As for the present, Alzajaajii (1974: 87) is not too clear about it. He views the present as a middle ground between the past and the future. On one hand, Alzajaajii believes that the present tense ya?fis is future. However he ambiguously concludes that the present tense may be used to express an event happening in the present moment or express an event that is about to happen in the future as in (2a). But once the particles seen or sawfa are used with the verb, the present tense is primarily used for the future as in (2b).

   stands-3sm now/tomorrow Zaid stands
   now/tomorrow.

b. Zaid sa/sawfa yaqumu. Zaid will
   stand-3sm Zaid will stand.

Ibn Jenni links tense in Arabic to the morphological form of the verb and that the varying verb forms necessarily reflect a specific tense (Ibn Jenni, no date: 331). He states that: ‘since the whole purpose of using verbs is to express tenses, different forms of the verb are used to signal the changes in tense (Ibn Jenni, no date: 331). Nonetheless he is quick to admit that the morphological verb form may end up having a different tense specifications from its default tense. In order to account for the inconsistency of the morphological verb form and tense, Ibn Jenni had to stipulate that it is perfectly legitimate to use a verb form beyond its predictable default tense provided that the speaker is aware of such usage. For instance, Ibn Jenni provides some examples of shifting tense in (3) (Ibn Jenni, no date: 331):

(3) a. ?in quma qumtu.
   If you stood up-2sm I stood up-1sm
   If you stood up I stood up.

b. lam yaqum ?ams.
   Not stood up-3sm yesterday
   He did not stand up yesterday.

c. ?aydaka Allahu.
   may help-1s-objective pro Allah
   May Allah help you.

The sentence (3a) has the verbs qumta/qumtu that are used for the past tense; however, the past tense verb forms here signal the future tense because, as Ibn Jenni assumes, these verbs are used in the context of the conditional ?in that expresses the future. The present tense verb in (3b) indicates the past tense as evidenced by the use of the adverb modifier ?ams due to the use of the negative particle lam. Finally, the past verb ?aydaka in (3c) shifts its tense to mark the future as it is used for supplication as a wish to be accomplished in the future. The cases in (3), among other data that we will discuss later on, are empirical problems for the morphological tense theory of the verb proposed by early Arab scholars. Ibn Jenni draws our attention to some of these cases but does not explain why the morphological verb form has shifting case specifications. The explanation that Ibn Jenni proposes depends on the syntactic context which weakens the morphological approach of tense in Arabic.

From the discussion above, we can conclude that early Arab scholars represented by Sibawayhi, Ibn Ya?fis, Alzajaajii, and Ibn Jenni viewed tense as a reflection of the Arabic morphological form. Moreover tense was determined by the speech time so that events (i.e., faʿal forms) occurring before are past while those after it (i.e., ya?fis forms) are considered to be in the future. The present tense ya?fis however was ambiguously analysed as being both present and future. However the ambiguity of the present tense is settled once the particles seen or sawfa are used and by then the verb primarily represents the future.

Orientalist’s View of Arabic Tense and Aspect

In this section, I briefly review only one important study by Wright (1974).

Wright, like the early Arab scholars, focuses on the two Arabic of Arabic verb: faʿal and ya?fis. He criticizes the concept of connecting tense in Arabic to the two forms since there are other types of tense like for example the future perfect and past perfect that are unrepresented by faʿal and
Yafa' (Wright 1974: 51). The early Arab scholars as discussed before classified tense into the past, the present, and the future and devoted fašāl for the past while yafšal is for the present and the future. Almalkzumii, agreeing with some of Wright’s criticism of tense theory of the early Arab scholars, observes that fašal and yafšal may represent the simple tense distinctions of the past, present, and the future but may not however express the potentially different tense specifications allowed by the language like the perfect tense for instance (1986: 147).

Even though Wright criticizes the early Arab tense theory focus on the two verb forms, he however argues that the two forms express aspect and not tense (Wright 1974: 51). For example, Wright believes that fašal represents a finished or a perfective action whereas yafšal expresses an imperfective events. He lists all possible uses of the two verb forms. Unfortunately, he confuses tense and aspect and ends up making false statements. For example, Wright suggests that wishes or supplications as in (3c) above are completed actions. But they are not completed actions. Furthermore the past verbs in the context of conditionals as in (3a) are not perfective because the conditional particle expresses the future. Therefore not every past verb is perfective as Wright suggests. Moreover not every present verb in yafšal form is imperfective as implied by Wright. For example, Binnick reports Comrie’s example of the Quranic verse, “Fa Allahu yahkumu baynahum yawma lqiyaamit” (But God will judge the speech. That is why Sibawayhi (1988 Vol 3: 24) observes that fašal marks the present and the future. However these forms may not consistently represent a specific tense. Instead, the two verb forms may be used in place of the other jeopardizing the theory of one-to-one mapping of tense and form of the early Arab grammarians. Below I refer to some data that pose problems to the traditional tense theory.

a. The contract terms like bištuka ‘I sell you (this product)’ involves a past tense form that refers to the present tense since the selling is established at the present moment of the speech. That is why Sibawayhi (1988 Vol 3: 24) observes that yafšal is used in place of fašal.

b. Although the traditional tense theory accounts for simple tense patterns like the past or the present or the future, it may not easily explain the complex tense structures. Let us examine the following sentences (examples are from Almalaax 2009: 326)

4. a. kataba Zaidun ad-darasa ?alaan.
   wrote-3sm Zaid-nom the lesson-acc now
   Zaid has written the lesson by now.

b. alyawma ?atamantu alyawka nimittii (al-
   Maa?idah, verse 3)
   today completed-1sm upon you my blessing-acc
   By today I have completed my blessing upon you.

Even though the past tense kataba and ?atamantu is used, it is not the simple past that is meant here because the adverbs ?alaan and alyawma are inconsistent with the past. This suggests that the verbs in spite of their morphological form are not past. Almalaax (2009: 326) indicates that such verbs are present perfect. The event has started in the past and is completed at present hence the adverbs ?alaan and alyawma are used.

c. Verbs of promise and conditional sentences refer to the future as they represent actions that are to be fulfilled in the future (Almalaax 2009: 156; Hasan no date, vol.1: 54). Let us examine the following sentences:

   if called-2sm-objective pro helped-1sm-objective pro
   If you call me, I will help you.

   We granted-3pm-objective pro alkawthar-acc
   We granted you a river in Paradise, alkawthar.

The verbs in the conditional sentence in (5a) and in the promise sentence (5b) are in the past tense morphologically. However these verbs are not in the past since they have not existed yet but are expected to take place in the future. That is why some Arab linguists considered such verbs to be future in terms of meaning (Hasan no date, vol.1: 54). These are problematic cases to the strict traditional tense theory.

d. Past tense verbs in Quranic verses of the Hereafter explain events that have not yet existed in the past nor they are existing in the present but they are going to happen in the future. For example, ?ata ?amru Allahi fa laa tasta?iluuh “The event (the Hour or the punishment of the disbelievers) ordained by Allah will come to pass, so seek not to hasten it” AlNahl verse 1. In his interpretation of the verse, Ibn ?a?shuur (no date, vol: 96) suggests that even though the past tense is used, ?ata here describes an event that is destined to happen in the future, the Day of Judgment. In another verse, wa yawma yunfaga fii lsauri fafaziSa man fii isamawaati wa man fii lar?i (And (remember) the Day on which the Trumpet will be blown and all who are in the heavens and all who are in the earth will be terrified) AlNam?r, verse 87. Ibn ?a?shuur (no date, vol 8: 46) observes that, like ?ata in the previous verse, the past tense of the verb fafaziSa implies that the terrifying event is completed in the future since it is a feeling that quickly befalls people
after the Trumpet is blown. *yunfāxa* is in the present tense form and it refers to the future. Reinforcing the future perfective meaning of the past tense verbs, Alhataarri (2006: 25) suggests that the change from *yunfāxa* which is in the present tense referring to the future to the past tense *fāzażi‘a* expresses the quick perfective nature of the event terror.

e. The past verb can express the present tense to report the historical past or *hikaayat il-haal*. Let us consider the following examples:

(6) a. haatha Zuhair alsha‘ir aljaahlhī *yuraajī‘u* qasaydatahu
This is Zuhair the poet pre-Islamic reviews-3sm his poem-acc
This is Zuhair the pre-Islamic poet reviewing his poem. (This example is taken from Hasan no date, vol4: 340)
b. wa Allahu allāthī *?Arsala arīya‘āha* fatuthiiru sāhabān.
( Fater, verse 9)
And it is Allah who sends the winds, so they raise up the clouds.

The verb *yuraajī‘u* in example (6a) involves an event that had been completed long before the present moment. But the present tense event is used in order to report the event of reviewing the poems as if it exists now to give importance to present tense event is used in order to report the event of had been completed long before the present moment. But the present form to report a past event to bring fatuthiiru and among other past verbs like *fasuqnaahu*.

And it is Allah who sends the winds, so they raise up the clouds.

The Arab scholars tried to provide explanations of the shifting tense for the verb that were not related to the morphological form of the verb. Instead the explanations were either related to the syntactic context of the verb as in (f) or were based on rhetorical motivations as in (C), (D), and (E) or the explanation is simply ignored as in (a) and (b).

**MODERN STUDIES OF TENSE AND ASPECT IN ARABIC**

In this section, I review the studies of Fassi Fehri (1993), and Juhfah (2006).

**Fassi Fehri (1993)**

Fehri (1993) discusses the two contrastive views on whether Arabic is a tense language as proposed by the early scholars like Sibawayhi in their analysis of *fa‘al* and *ya‘fāl* or if Arabic is an aspectual language as defended by Western Semiticists such as a Wright (1974). Fehri believes that both tense and aspect should be part of a comprehensive theory. He argues that the traditional distinction of tense based on *fa‘al* and *ya‘fāl* is problematic and it can only explain simple tense structures like the following examples Fehri (1993: 146):

(8) a. *katabar-ar-rajulu* risa‘alata *yu’dan.*
wrote-3sm the man-nom the letter-acc tomorrow-acc
The man wrote the letter tomorrow.
writes-3sm the man-nom yesterday
The man writes yesterday.

However, according to Fehri, the binary distinction between the past/non-past tense does not explain complex tense structures as the following examples illustrate (Fehri, 1993: 147-148):

(9) a. jalasa ya‘rābu al-qahwatā.
sat-3sm drink-3sm-nom the coffee-acc
He sat, drinking coffee.
b. kaana iwaladu ya‘Yābu.
was the boy-nom play-3sm-nom
The boy was playing.
c. sayakuunu lwaladu (qad)la`ība.
will be the boy-nom (already)
played-3sm
The boy will have (already) played.

In these examples, the sentences are complex consisting of two clauses: main and dependent each with its own tense specification. Such sentences are difficult to handle based on the past/non-past tense distinction of the early Arab scholars. At the same time, these examples are also problematic for the western Semiticists’ assumption of perfective/imperfective approach. Fehri argues that tense and aspect interact together in order to explain the examples in (9). For example, Fehri observes that the main clause verb jalasa in (9a) serves as an anchoring point for tense of the dependent clause verb yaf`arabu. Thus since the main verb is past, the other verb becomes past. Fehri also indicates that the aspect of the event is imperfective despite the fact that the main verb tense is past. As for (9b), kana is past while yaf`arabu is non-past and the tense therefore becomes past due to the main verb. The aspect of the event of the sentence is perfective even though that the dependent verb is non-past. Finally, the tense of the verb sayakuunu in (9c) anchors the tense of the subordinate verb and becomes future. The aspect of the event is perfective. Therefore, the complex tense structures such as imperfective past (9a), past perfect (9b), and future perfect (9c) cannot be accounted by the scholars’ theory of tense or by the aspect theory of the Semiticists.

Juhfah (2006)

Like Fehri (1993), Juhfah argues (2006: 49) that the early Arab theory of tense based on the morphological distinction between fāsīl and yaf`āl does not account for the different tense possibilities in the language as well as separating tense from aspect (2006: 122). At the same time, he suggests that Semiticists’ assumption that the Arabic two morphological forms are distinguishable in terms of aspect and not tense cannot be maintained (2006: 62). So he proposes a theory combining tense and aspect and mood (2006: 122).

Below I illustrate Juhfah’s analysis of aspect in Arabic. Juhfah believes that aspect is a syntactic process that is compositionally computed by means of agreement relationship between the verb and its object (2006: 192). More specifically, the verb and the object agree with each other in a specifier-head relation and produces a perfective or telic reading when the verb has [+add] feature agreeing with the object [+quantity] feature. The feature [+add] is a verbal feature being associated with an event that can be counted. As for [+quantity], it is a nominal feature related to nouns that can be countable like chairs, cars but not mass nouns like water. In other words, in perfective actions we expect verbs and nouns to have the features [+add] and [+quantity] agreeing together. Otherwise if the verb is taking a mass noun for example, we expect the verb feature [-add] to agree with the object [-quantity] thus producing an imperfective reading. Then Juhfah, following the minimalist approach of Chomsky (2015), after the checking of feature of the verb, the [-add] feature of the verb is deleted since it is uninterpretable while the [quantity] feature of the object is preserved since it is semantically relevant and thus interpretable (Juhfah, 2006: 192).

SYNTACTIC ANALYSIS OF TENSE AND ASPECT IN ARABIC

I provide a syntactic analysis explaining how aspect and tense apply. I follow MacDonald’s analysis (2008) as it explains how the verb interacts with its internal arguments such as the object, the modifiers and the particles in order to generate the aspectual interpretations. Furthermore, the verb moves to Tense phrase (TP) to check its tense features. Therefore, aspect and tense features develop as a result of two basic syntactic relations: agreement and movement in two basic functional projections: AspP (Aspectual phrase) and TP. I start with aspectuality and then turn to tense discussion.

Aspectuality

In this section, I explain aspect and distinguish it from tense. Then I discuss the aspectuality of different types of verbs and also the aspectual properties of different noun types. Moreover, I illustrate some of the clues and evidence used in the literature to determine the (a)telicity of the event. Finally, I discuss the factors affecting aspect in Arabic verb phrase.

Telicity vs atelicity

Aspect is the internal organization of time of the event represented by the verb whether it has a definite endpoint, i.e., the event is telic, or the event is still continuing, atelic (Tenny 1987). Therefore, aspect is different from tense in which tense basically refers to time based on the utterance point.

Verbs in terms of their aspectual characteristics are classified into: accomplishment, achievement, activity or process, and stative (see Vendler 1967; Tenny 1987; Pastejovsky 1991; MacDonald 2008 among others). Let us consider the following examples:

(10) a. tasallaqa Sami al-jabala.
climbed-3sm Sami the mountain-acc
Sami climbed the mountain.
b. mata al-waladu.
died-3sm the boy-nom
The boy died.
c. nama Muhammadun baakiran.
sleep-3sm Muhammad-nom
Muhammad sleeps early.
c. Sarah tuhibbu assafara.
sarah like-3sf-nom travel-acc
Sarah likes to travel.

The verb tasallaqa in (10a) is an example of an accomplishment verb because the event denoted by the verb reaches its end when Sami gets to the summit of the mountain. Thus the action is telic. In other words, the event
takes some time before it culminates and reaches a definite endpoint. The event of death mata in (10b) is usually instantaneous since it takes little duration to get to the final endpoint. Such verbs are called achievement. On the other hand, verbs in (10c and d) do not have endpoints; therefore, they are atelic. The verb nama is a process (in Pastejovsky’s terms 1991) or an activity verb (Tenny 1987) that has a beginning but no end. Finally, tahiibbu deals with a state that does not have a terminating point.

The aspectuality of the event of the verb is determined by the internal components of the VP such as the object and modifiers that I will consider later; for now, I will consider the object. The object affects the event’s telicity and it can either produce one indivisible event or divide the event into further smaller events (Juhfah, 2006; Tenny 1987; MacDonald 2008). Let us consider first the effect of object on the (a) telicity of the event.

(11) a. ḥalaaba *fii saa‘ateen.
   drank-3sm Muhammad-nom one glass-acc of milk-gen in two hours
   Muhammad drank one glass in two hours.
   b. ḥalaaba *fii saa‘ateen.
   drank-3sm Muhammad-nom milk-acc in two hours
   Muhammad drank milk in two hours.

The drinking of one glass of milk in (11a) is a telic event that can be measured out by the consumption of one glass over the specified time in the adverbial phrase. As the glass is finished the event is completed as the two hours elapsed. The use of the adverbial modifier fii saa‘ateen serves as the time duration by which the event comes to an end. However, when the object is a mass or non-count noun as in (11b), the event becomes atelic since the event of drinking milk does not have a logical termination point as evidenced by the ungrammaticality of the adverbial modifier. The modifier fii saa‘ateen forces the event to be delimited after this period of time which is incompatible with atelic nature of the mass noun al-haleeba. So the two nouns in (11) have different aspectual properties: one is countable, i.e., kaa‘asan min al-haleeba, and involves a telic event. The other noun is non-countable and atelic as evidenced by the ungrammaticality of fii saa‘ateen.

The two events prescribed by these verbs are telic events and therefore no repetition. However, in an event that has a termination point as in climbing a mountain in (12b), the durative adverbial suggests a series of events within the two hour period. So we expect climbing events to happen over and over within the time frame of durative adverbial. Tenny (1987: 22) and MacDonald (2008: 33-35) report the same observation in English where durative adverbials produce single event interpretation when used with atelic verbs and multiple event reading with telic verbs.

Having discussed aspectual properties of verbs and nouns, we are in a position discuss the factors affecting aspect in Arabic verb phrase. What controls aspect? Is it morphology or syntax? We have already observed that morphology cannot determine aspect in Arabic since the Orientalist’s (as discussed in section 2.2) binary distinction of yaf‘al as imperfective or atelic and fa‘al as telic or perfective has empirical problems and we have discussed some of these problems in section (1.3) above. For example, fa‘al can express the imperfective while yaf‘al may be used for the perfective aspect. However, we cannot dismiss that there are some morphological markers of aspect. Among these morphological markers are commence verbs or muqaraabah verbs such as kaada and ḥawa‘aka, beginning verbs as karafa and ḥaafa‘a, hope verbs as ḥasa, and other nawasix verbs like maazaala and maanfa‘aka. All these verbs make the event imperfective. Let us consider the following examples:

(13) a. fa‘ala al-waladu yaktubu ad-darsa.
   The boy-nom write-3sm-nom the lesson-acc
   The boy started to write the lesson.
   b. fa‘ala al-waladu yaktubu ad-darsa.
   It is hoped the boy-nom write-3sm-nom the lesson-acc
   It is hoped the boy write the lesson.
   c. maazaala al-waladu yaktubu ad-darsa.
   still the boy-nom write-3sm-nom the lesson-acc
   The boy still writes the lesson.
   d. kaada Sami yatasallaq al-jabala (laakinah xaafa or tasallaq qalilin).
   almost Sami climbed-3sm the mountain-acc (but he was afraid or climbed little)
   Sami almost climbed the mountain.

The events of verbs in (13) are incomplete because the final result is not reached due to the use of these morphological elements. The events prescribed by these verbs in (13) consist of a beginning and a result and these verbs emphasize that the events have already begun as in (13a, c) or is hoped to begin in the future as in (13b) or is about to begin as in (13d) but the result is not achieved. It is interesting that kaada behaves similarly to almost in English. Like almost, kaada may ambiguously have two possible interpretations when used with an accomplishment verb like yatasallaq: kaada can modify the beginning of the event so that the event almost begins and that the event has not begun
because Sami was afraid. This is what MacDonald calls the counterfactual interpretation (MacDonald 2008: 64). We get the second reading however when kaada refers to the end of the event in which the event begins and almost ends and the meaning is that Sami climbed some part of the mountain but not entirely. This is called an incompletive interpretation (MacDonald 2008: 64). Now let us examine how atelic verbs are used with kaada:

(14) a. kaada al-walad-u yadfa'yu as-sayyaart-a (laakinah r'ayyara r'a'ayahu).
   Almost the boy-nom push-3sm-nom the car-acc but he changed his mind.
   The boy almost pushed the car.
   b. *kaada al-walad-u yuhibbu as-safara.
   Almost the boy-nom like-3sm-nom travel-acc
   *The boy almost loved to travel.

An activity verb in (14a) has a beginning but no end (MacDonald 2008: 67); as a result, kaada only modifies the beginning of the event and the only interpretation we get is that the event of pushing the car has not begun. Thus the event is atelic with no end result. As MacDonald (2008: 67) suggests, a stative verb yuhibbu has no beginning and no end; therefore, kaada may not be used since it cannot modify the beginning nor the end of the event making the (14b) ungrammatical.

Finally, I discuss the how the internal arguments within the VP structure play a role in the aspectuality of the verb.

AspPhrase: a functional predicate for aspect

As we observed in the previous section, the aspect is calculated syntactically by means of the verb interaction with its internal arguments (see Fassi Fehri, 1993 and Juhfah, 2006). For example, the verb becomes telic or atelic depending on the type of the object whether it is countable or not as in examples (11) above. Other constituents inside the VP, like oblique arguments as discussed in examples in (15), also affect the telicity of the verb. So it makes perfect sense to analyse aspect as a syntactic process performed between the verb and its internal arguments. One way to do this is to assume that aspect is developed by means of syntactic functional projection that we consider to be an Aspectual functional projection or phrase, AspP. In fact, this is what MacDonald (2008) argues for and I use his analysis with some modifications required by the Arabic data as it can account for its aspect better than other analyses as Juhfah’s (2006).

The AspP is situated between VP and VP'. MacDonald assumes that aspect has its own functional projection and he cites researchers like Travis (1999; 2000), Borer (1994; 1998; 2005), Ritter & Rosen (1998, 2000). The interesting innovation of MacDonald’s proposal is that aspect is syntactically calculated in AspP by means of agreement, a syntactic principle, between the object in the lower VP shell and Asp head. MacDonald calls this process object-to-event mapping (OTE) (MacDonald 2008: 4). Furthermore, there is a direct interaction between OTE and event structure features. Now we examine how this analysis works. First, let us discuss the basic event features of the main four aspectual classes of verbs (MacDonald 2008: 28):

(16) a. vP
    AspP
    (Activity)
    (Stative)
    b. vP
    AspP
    V
    (Accomplishment)
    (Achievement)

The event of an activity verb like walk has only a beginning symbolized as initial subevent (ie) and no end. This feature is marked on the Asp head and then it projects to the higher node, AspP. So the event of activity (i.e., AspP) has a beginning feature. As for the stative as love, its event has no beginning or end features. Therefore, it has no aspectual projection. An accomplishment verb as build a mosque is specified with a beginning feature on the Asp head and an end feature that is marked on the verb head. The features project to the higher nodes respectively: AspP and VP. MacDonald relates the two features by a c-command
Sami almost climbed the mountain
repeated in (17) for convenience.

‘almost’ with an accomplishment verb in (13d) above
almost
event features agree with event structure modifiers like
or with none as stative verbs (MacDonald 2008: 28). The
of activity verbs are either associated with beginning feature
always involve beginning and features whereas atelic events
the event. Telic events like accomplishment and achievement
MacDonald (2008: 28) relates the lack of c-command to the
end of the event. On the other hand, in an achievement verb
explaining the elapse of time between the beginning and the
the <fe> feature dominated by VP as (16d) shows hence
they are dominated by the same Asp head as shown in (16d).
MacDonald (2008: 28) relates the lack of c-command to the
lack of time elapsing between the beginning and the result of the
telec events like accomplishment and achievement always involve beginning and features whereas atelic events of activity verbs are either associated with beginning feature or with none as stative verbs (MacDonald 2008: 28). The event features agree with event structure modifiers like almost. To illustrate, consider the use of the modifier kaada ‘almost’ with an accomplishment verb in (13d) above repeated in (17) for convenience.

(17) kaada Sami yatasallaq al-jabal.
almost Sami climbed-3sm the mountain-acc
Sami almost climbed the mountain kaada ambiguously has two possible interpretations: kaada can modify the beginning feature on the AspP so that the interpretation is that the event almost begins but the event has not begun because Sami was afraid. This is the counterfactual interpretation. We get the second reading however when kaada modifies the end feature that is projected to the VP shell generating an incomplete interpretation in which Sami climbed some part of the mountain but not entirely. When kaada is used with an achievement verb, the modifier has a different behaviour.

(18) kaada Muhammadun yasqut. almost
Muhammad-nom fall-3sm
Muhammad almost fell.
The sentence in (18) has an achievement verb yasqut since it can be modified by what Pustejovsky (1991: 50) calls point adverbs that prove the event has a definite simultaneous endpoint. The sentence can be modified by at noon or any specific point time adverbs. Now if kaada is used we have one possible reading which is the counterfactual interpretation because kaada only modifies the beginning of the event. So the meaning becomes failing almost happened but it did not occur. As the tree diagram (16d) shows, the beginning feature <ie> projects to Asp leaving the end of event feature <fe> behind. As a result, the beginning feature becomes visible syntactically while the end feature is not and thus kaada can modify only the beginning feature. Here an achievement verb differs from an accomplishment verb since the two features are projected in two syntactically visible nodes as illustrated in (16c) thus generating ambiguity with kaada. Pustejovsky (1991: 51) reports the same observations in similar sentences in English with the use of almost. Like achievement, an activity verb yadfa’u assayyaart is unambiguous with kaada as in (14a) since the modifier accesses the beginning feature producing the counterfactual interpretation. Finally, kaada cannot be used with the static yuhibbu in (14b) because there are no beginning and end features to modify.

After discussing the event structure features, let us now examine OTE and how it interacts with event features. Consider the following example.

(19) a. ?akala Sami tufaaḥatan. ate-3sm Sami an apple-acc
Sami ate an apple.
b. ?akala Sami ruzzan. ate-3sm Sami rice-acc
Sami ate rice.

The object tufaaḥatan is countable and thus it provides a scale in which the object measures out the event of apple eating until it is completely consumed and the event is finished as evidenced by the use of the time span adverbs as fī daqiqatīn “in two seconds”. Thus the event is telic and the object here is countable and specified with [+q] which marks a specified quantity. MacDonald (2008) argues that such object with [+q] agrees with the Asp head and values it as telic. However, the object ruzzan in (19b) is uncountable since it does not have a specified category of material. As a result, this object is associated with [-q] and it agrees with Asp head and values it as atelic. MacDonald assumes in (20) to be goal PP is not the goal PP determines the telicity of the event of the verb while the goal constituents that also play a role, namely the oblique arguments. MacDonald argues that only the internal object determines the telicity of the event of the verb while the goal prepositional phrase (goal PP) does not as in the following example (MacDonald 2008: 177).

(20) John complained to his boss.
John complained to his boss.
MacDonald observes that the predicate complained is atelic and there is no internal object with [+q] that can make the event telic. He argues that even though the goal NP is [+q], i.e., boss is countable and hence is [+q], this goal does not influence the telicity of the event of the verb which is atelic. In order to ensure that boss does not affect the event telicity, MacDonald argues that the prepositional phrase to his boss is blocked from agreeing with Asp. However, this conclusion cannot be maintained. For one thing, what MacDonald assumes in (20) to be goal PP is not the goal PP delimiting the event. To illustrate, consider the following example.

(21) a. al-walad-u yadfa’u as-sayyaarat. the boy-nom push-3sm-nom the car-acc
The boy pushes the car.
b. al-walad-u yadfa’u as-sayyaarat a-naḥwa māḥatāt-i il-yaaz-i.
the boy-nom push-3sm-nom the car-acc to the station-gen gas-gen
The boy pushes the car to the gas station.

The verb *yadfa`ū* in (21a) is an activity verb that is atelic since it has no implied end point to its event as evidenced by the impossibility of using the time span adverb *fi xamsi daqaaiiq* "in five seconds" in (21a). Once a goal modifier is used as in (21b) the verb *yadfa`ū* changes from an activity to an accomplishment and becomes telic as evidenced by the use of *fi xamsi daqaaiiq*. The same can be equally said about another type of oblique argument which is the source PP that I discussed in (14b) above. In accordance to MacDonald’s blocking analysis, the goal modifier should be blocked from affecting the telicity of the event. But because the event of the verb in (21b) becomes telic due to the goal modifier the blocking analysis is problematic. In fact, Pustejovsky (1991: 49) provides similar examples to (21) of an English activity verb that is atelic like *Mary walked* and such sentence becomes an accomplishment and hence telic by the use of goal modifier *as* in *Mary walked to the store*. The noun *mahatati ilvaaz* in the goal modifier *nahwa mahatati ilvaaz* is specified with [+q] and it agrees with the Asp making it telic.

Other VP constituents affecting the verb event are internal arguments of unaccusative verbs that MacDonald does not discuss (2008: 83). In section 2.3, I addressed some problematic data for aspect in Arabic. Some of these data are the following:

(22) a. ?ata?anmu Allahi fa laa tasta?jluuh.
    (AlNa`hl, verse 1)
The punishment (of the disbelievers) ordained by Allah will come to pass, so seek not to hasten it.

b. wa yawma yunf`aafu fii `iṣṣuri fafazi`a man fii lsamaawi wa man fii larda`.
    (AlNa`hl, verse 87)
And (remember) the Day on which the Trumpet will be blown and all who are in the heavens and all who are in the earth will be terrestrial.

As explained in section 2.3, these Quranic verses discuss events in the future and the past tense is used to express completed actions. If we examine these past verbs like *?ata ‘came’* and *fafazi`a ‘was afraid’*, we observe that they are achievement verbs since they both can be modified by point adverbs like *at noon* suggesting that these verbs are delimited by this time. Achievements as we discussed previously are events whose beginning and end happen simultaneously or at least there is a short time elapse between the beginning and the end unlike accomplishments. These types of verbs involve movement and change of state in which the event change from one state to another, e.g. *fafazi`a* from not afraid to being afraid. These verbs are called unaccusatives and they have an internal argument originating in the object position and then it moves to the subject position for case (Haegeman 1994: 333). The internal argument of *?ata* and *fafazi`a* is specified as [+q] and agrees with the Asp head and values it as telic.

To summarize this section, we can conclude that MacDonald’s aspectual analysis would handle the Arabic data better if we assume that a telic interpretation is not only due to direct objects but also oblique arguments of the verb as well as internal arguments of unaccusatives with [+q] agreeing with an Asp head. Otherwise we would expect atelic reading in which the Asp head is valued as [+q]. Similar to MacDonald’s, Juhafah’s analysis (2006: 192) proposes that aspect is a syntactic process that is compositionally computed by means of agreement relationship between the verb and its object. More specifically, the verb and the object agree with each other in a specifier-head relation and produce aperfective or atelic reading depending on whether the verb has [+/- add] feature agreeing with the object [+/- quantity] feature. Then after checking the features, the [add] feature of the verb is deleted by LF since it is uninterpretable while the [quantity] feature of the object is preserved since it is semantically relevant and thus interpretable. There are at least two problems with Juhafah’s analysis. The first problem is that it considers the direct object as the only source determining aspectual interpretation of the verb event as MacDonald’s analysis does. Secondly it is a costly process to assume that a verb, in its agreement with the object, is characterized with [+add] feature, for telic event, and [-add], for atelic event. Then we delete these features of the verb at Logical Form (LF) because they are uninterpretable given the fact that they do not add anything to meaning.

**Tense checking and TP**

As we have observed in section 2.1, the early Arab scholars linked tense to the Arabic morphological forms: *fa`al* and *ya`f`al*. However, these forms can be associated with multiple tense specification as explained in section 2.3. Consider the following examples:

(23) a. bi`utuka al-qalam-a`alaan.
    I sell-2sm-objective pro the pen-acc now
I sell you the pen now.

b. alyawma `atamantu `alaykum nunmati`i (alMaa`i dah, verse 3)
    today I completed-ism-nom upon you my blessing
By today I have completed my blessing upon you.

c. ?ajiu `i`da`i`mrra al-bursu al-Sahar al-qaadim.
    came-1sm when becomes ripe-3sm the dates-nom the-month next
I shall come when the dates ripen next month.

d. kullama daxal-a`ala`ayha Zakaria al-mi`rraab-a` wajada `indaha rizqan.
    You should called-2sm father-acc-your tomorrow
You should call your father tomorrow.

e. halla kallam-a`?abaaka `ayan.
    I say-2sm to him-acc your
You should call him your.
present tense as evidenced by the use of the adverb yaf. I reviewed the early Arab literature of tense and aspect and concluded that the traditional morphological view of Arabic verb cannot determine tense and aspect. Instead, I provided a syntactic analysis of tense and aspect based on MacDonald’s (2008) analysis with some modifications needed to account for the Arabic data. More specifically, I have shown that MacDonald’s analysis as well as Juhfah’s analysis (2006) relied primarily on the internal object determining the telicity of the verb event. However, I have illustrated that beside the internal object other internal arguments of the VP like oblique arguments and internal object of intransitive achievements or unaccusatives also affect the telicity of the verb. Finally, I have shown that tense and aspect can be easily handled through the verb successive movement to V and T to check the aspect and tense features respectively.

ACKNOWLEDGMENTS

This research is funded by the Research Centre in the College of Arts at King Saud University for funding this research.

END NOTES

1 In his analysis, MacDonald uses the well-known VP-Shell that was originally developed by Larson (1988) to account for the double object construction. In such structure, the VP is split into two shells: the light head v with a causative interpretation taking a VP as its complement. See Larson (1988) and Radford (2009: 295) for more details.

2 C-command is a syntactic relation organising the word order between nodes in a syntactic tree. It is defined as: A c-commands B if neither A nor B includes the other and every node dominating A also dominates B (Chomsky 1986a).

3 Even though the end feature is not projected to the Asp, it nonetheless contributes to the interpretation of the sentence by putting an end to the event. The verb yasqut in (18) without kada has two features a beginning and end expressing that event begins and ends at the same time. Therefore, the event is telic. But syntactically only the beginning feature becomes visible by projecting to the higher node Asp. Of course, kada in (18) modifies the beginning part of the event which cancels the result of the event.

4 The goal modifier in (21b) should be distinguished from MacDonald’s modifier to his boss in (20) where the former modifies the place and answer a question, ‘where does he push the car?’ while the latter is not. Hence the modifier nahu maḥatati ibraazi works as a place destination by which the event reaches its goal and ends. This is not the case for to his boss.

REFERENCES


Ibn aashuur, M. (no date) taifsir attarkiir wa attanwiir. Tunis: Daar ḫa$nunul lilanshar wa attawzi?.


