

## Aktionsarten: Projection and Subcategorization

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### ملخص

اهتم الباحثون اللغويون في مختلف اللغات بحالة الفعل من حيث تمام الحدث أو استمراريته وقت التكلم (وقت نطق الجملة) وهو ما يعرف بـ *Aktionsart* أو *Lexical Aspect*. بَيَدُ أن اللغة العربية ولهجاتها لم تحض بالدراسات المستفيضة في هذا الشأن. على سبيل المثال – لا الحصر – من بين تلك اللهجات العربية اللهجة الحجازية والتي تفتقر إلى الدراسات اللغوية المحكمة حيث إن الأبحاث التي عملت فيها شحيحة جداً. ومن هنا كانت هذه الورقة العلمية لتصف الخصائص النحوصرفية لحالة الفعل من حيث تمام الحدث أو استمراريته زمن التكلم.

هذه الورقة تصف الأدوات اللغوية التي تُستخدم للتعبير عن استمرارية الحدث، وكيفية اشتقاقها اللغوي وخصائصها النحوصرفية من حيث المطابقة والتفاعل اللغوي مع الأدوات اللغوية الأخرى كالزمن والفعل والأفعال المساعدة. إن هذا الاستخدام اللغوي لتلك الأدوات يكشف الغموض في المعنى المراد من الفعل (هل هو للاستمرارية أم للحالة الاعتيادية)، ويعبر عن استمرارية حدث الفعل وقت التكلم به (لم ينته الحدث بعد) عندما يكون الزمن مضارعاً، أو عن استمراريته في الزمن الماضي. هذه الأدوات مشتقة من الجذرين الثلاثيين (ج.ل.س) و (ق.ع.د).

يزعم الباحث أن هذه الأدوات تحتل مكاناً في الشجرة النحوية بين (TP) و (Tax-AspP) ولذلك فإنها تتفاعل نحويًا مع العناصر الأخرى في الشجرة النحوية. وهذه الورقة تسبر غور تلك الخصائص النحوصرفية في ضوء النظريات التشومسكية الحديثة وتبين اشتقاق هذه الكلمات ومكانها في الشجرة النحوية.

مفاتيح البحث: النحو، الصرف، العربية، الحجازية، اسم الفاعل، التمامية، الاستمرارية، الفعل المضارع

### Abstract

*Aktionsart* (*Aktionsarten* – plural) has always been referred to as Aristotelian Aspect, Lexical Aspect, Event Type, or Inherent Aspect. Aspect and *Aktionsarten* have attracted many researchers across languages, including Standard Arabic. However, research onto the Hijazi Arabic (henceforth, HA) dialect in general, and the expression of *Aktionsarten* (lexical aspect) in particular is extremely minimal. Thus, this paper tries to fill in this gap by describing the lexical aspectual elements that express progressivity, how they are encoded morphologically to unveil the ambiguity between actions in progress and habitual actions. It also shows their morphosyntactic properties, the interactions with the functional categories in the hierarchy, and how these categories are distributed along the syntactic tree.

HA uses the developed aspectual markers that can only precede imperfective verb forms to denote that the event is still on-going ‘unfinished’ at the moment of speaking or was on-going ‘past progressive’ when the time reference is past. These aspectual markers are derived from the roots  $\sqrt{JLS}$  and  $G\&D$ .

The key finding of this paper is that the developed aspectual markers are projected into the head of what I call *Aktionsart* Phrase (AktP). This head occupies a position between the functional heads of Tense TP and Tax-AspP, and it interacts with the functional categories across the hierarchy.

key words: Arabic, Syntax, Aspect, *Aktionsart*

## 1. Background and aim of study<sup>1</sup>

Aktionsart (aktionsarten – plural) has always been referred to as Aristotelian Aspect, Lexical Aspect, Event Type, or Inherent Aspect. I interchangeably call it aktionsart(en) and lexical aspect in this paper. This is due to the fact that Aspect and Lexical Aspect are related (for detail, see Vendler (1967a)). Aspect and aktionsart have attracted many researchers across languages, including Standard Arabic (see, for example, Abney, 1987; Bahloul, 1994; Bakir, 1980; Bhat, 1999; Comrie, 1976; Dahl, 1987; Eisele, 1988, 1999; Fassi, 2003; Giorgi, 1997; Iljic, 1986; Kurylowicz, 1973; Pettersson, 1979; Zeno Vendler, 1967b, to name a few). The literature also shows some work on some Arabic dialects including Moroccan, Syrian, Lebanese, Palestinian, Egyptian, Tunisian, and Algerian Arabic as can be seen in the work of some linguists such as (Al-Aswad, 1983; Al-Khawalda, 1997; Bakir, 1980; Caubet, 1991; Eisele, 1988, 1999). Nonetheless, some of these linguists concentrate on the relation between the semantic properties of the different slots of time and how time interacts with tense and aspect. They do not look at the syntactic position and the different subcategorizations of the aspectual elements. Other linguists have argued for some syntactic positions that do not fit to the advocated hierarchy of Hijzai Arabic (henceforth, HA). For example, Fassi (2003), following Reichenbach (1947), investigates the Standard Arabic (SA) aspectual elements from a logical perspective. Briefly, Reichenbach (1947) introduces three slots of time. They are the reference time (R) that is considered as a third point in time that tenses relate to, the event time (E) and the speech time (S). This theory uses the metalinguistic use of "tense", which is different from the normal functional meaning associated with verb forms. In this metalinguistic use, the assumption is that finite verbs in any given language can be described by the co-occurrence of these three points of time, namely, reference time (R), event time (E) and speech time (S). Following the Reichenbach's theory of tense, Fassi argues that there are two T heads that respectively dominate the Asp and VP heads. However, this logical perspective is not compatible with the advocated approach used for the analysis of the HA structure. In addition, Fassi does not look at any developed aspectual elements that may be used to unveil the ambiguity of Arabic verbs (as progressive or habitual) as shown below in HA. Rather, Fassi uses this theory to generally show the aspectual features of Arabic lexical verbs.

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<sup>1</sup> I am very pleased to thank the reviewers for their highly appreciated and insightful feedback and valuable comments that have considerably improved the manuscript.

Using another perspective, Caubet (1991) looks at the aspectual elements and their interaction with the verbal system in some Arabic dialects including Lebanese, Algerian, Moroccan, Tunisian, Syrian, Palestinian and Egyptian Arabic. Caubet (1991) uses the semantic notion of 'concomitance' and 'non-concomitance' to show how these Arabic dialects "mark an opposition between concomitance and non-concomitance with time of utterance" (Caubet 1991: 213). The opposition is marked by some auxiliaries and particles, such as *gaaʕid* or a particle such as *ʕum-*. Thus, *gaaʕidyishrab* (Moroccan) and "*ʕumbiyishrab*" (Lebanese) "he is/has been drinking" are concomitant whereas *yishrab* "he drinks" is non-concomitant. Again, Caubet's work does not look at the syntactic position of these elements.

In a third approach, Saddour's (2009) study looks at progressivity in Tunisian Arabic in contexts to investigate the predicate forms used. Saddour confines her study to the expression of progressivity in "oral retellings of simultaneous situations". In turn, this enables her to find out what elements should be considered progressive markers in the dialect of question. Following Acsu-Koç & Von Stutterheim (1994), Saddour (2009:269) defines simultaneity relation "as any type of overlap or inclusion between two situations (processes, events or states)". Saddour's study does not look at the syntactic placement or the subcategorization of the aspectual elements, which is the gap that this paper tries to fill.

A fourth approach is used by Bahloul (1994, 2008) who has looked at only one aspectual element in Standard Arabic, namely *Qad*. He argues that *Qad* functions as an assertive particle and occupies an AsrtP position. This particle does not exist in HA as an assertive particle nor do the elements under study are assertive in their functions, so this approach does not fit the analysis of the HA aspectual elements.

Given that research onto the Hijazi Arabic dialect in general, and the expression of aktionsart (lexical aspect) in particular is extremely minimal, this paper tries to fill in this gap by focusing only on the description of the HA Aktionsart. In other words, it aims only at describing the lexical aspectual elements that express progressivity, how they are encoded morphologically to unveil the ambiguity between actions in progress and habitual actions. It then shows their morphosyntactic properties and interactions with the functional categories in the hierarchy. Ultimately, this paper enriches the existing literature about the HA aspectual elements by accounting for one of their verbal aspects, namely their contribution to the realization of "Aspect". It argues that the aspectual elements developed in HA occupy a functional category

that I call Aktionsart Phrase (AktP). This category of AktP occurs between the functional categories of Tense (TP) and Tax-AspP<sup>2</sup>. The Taxis-Aspect functional category includes the event time (Taxis) that is marked, and it is a property that underpins "events" which is something dynamic, or non-stative (aspectual in the sense of aktionsart). Taxis refers to an event preceding or following another presupposed event or event reference time. Following Bahloul (1994, 2008), I combine the categories of Taxis and Aspect, as a Tax-AspP projection, where lexical verbs must merge to check off these taxis-aspect features (see Al Zahrani 2013, Section 4.2.3). However, I also use a separate AspP wherein the perfective and imperfective auxiliaries *kaan* and *ykuun* are base-generated (for detail, see Al Zahrani 2013, Chapter 4).

For the analysis of the HA structure, this paper depends heavily on Al Zahrani (2013) who details and explains in depth the structural components of HA. However, this paper also develops the HA structure, set out in Al Zahrani (2013), by adding the functional category of AktP (Aktionsart Phrase) to its hierarchical structure. This background shows the pure syntactic aim of this paper, which is the syntactic placement of the elements under study that are used to express progressivity; how they are encoded morphologically to unveil the ambiguity between actions in progress and habitual actions. Thus, the paper does not look at the different semantics of Aktionsarten: stative, activity, accomplishment and achievement; or at their relation to the features of being telic, dynamic or durative. (For such differences, the reader may see Mani et al., 2005; Van Valin & LaPolla, 1997). The next section shows how progressivity is expressed cross-linguistically.

## **2. Progressive Expressions in Language**

From the short survey presented in the previous section, one can observe how many linguists have been looking at elements that express some aspectual expressions across languages. What is of interest to the aim of this paper is the progressive aspect that is coded morphologically by some linguistic elements.

According to Dahl (1987), semantic progressivity is a universal concept and can be morphologically unmarked in many languages. However, when progressivity is marked, languages differ in the way they mark it. Few languages mark the progressive aspect on verbs by

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<sup>22</sup> Tax-AspP is a functional category adopted from Bahloul (1994, 2008) and thoroughly explained and developed in Al Zahrani (2013) to show how it fits the HA hierarchical structure and how it may occur twice along the HA hierarchy.

some grammatical elements like in English with *Be + V-ing* predicate as in "*I am eating*" (Bardovi-Harlig, 2008). Some other languages mark progressivity by some lexical elements like in French with '*en train de*' (Bertinetto et al. 2000). In addition, there are languages that mark progressive aspect morpho-syntactically as in Spanish and Italian where the progressive can be marked by the combination of the copula '*estar+Gerund*' and '*stare+Gerondif*' respectively (Bertinetto et al. 2000: 520). Swedish uses the auxiliary 'hold' (*hålla*) whereas Hungarian marks it syntactically by a fixed word order (Bertinetto et al., 2000: 521-523).

Thus, languages vary in the way they mark progressive aspect. Progressivity can be fully unmarked (semantic progressivity) or grammatically, lexically and/or syntactically marked. Given this variation across languages, HA marks progressive aspect lexically by some forms derived from the roots of  $\sqrt{G\zeta D}$  and  $\sqrt{JLS}$  "notion of sitting down; remaining". This shows one of the contributions of this paper to the literature of Arabic dialects. That is, in spite of the fact that native speakers of Arabic use the other derivatives of these roots when functioning as aspectual markers, the previous analyses of Arabic dialects, which have been stated above, have included the active participial forms *jaalis* and *gaaʕid*, but, to the best of the author's knowledge, they have not looked at the other derivatives of the two roots:  $\sqrt{G\zeta D}$  and  $\sqrt{JLS}$ .

Marking progressive aspect with these forms is not obligatory in HA, i.e., HA progressive aspect can be semantically marked without any morphological markers, but this is beyond the scope of this paper.

Finally, it should be noted that some verb forms cannot be progressive since progressivity is particular to certain lexical contents. Vendler (1967a) claims that stative verbs like 'know' and 'love' are not in progressive aspect contexts as they lack the essential feature of the progressive. Also, Comrie (1976: 35-36) argues that verbs are of two "disjoint (non-overlapping)" classes: one class of verbs appears in the progressive forms and one cannot appear in such forms. "Stative verbs do not have progressive forms since this would involve an internal contradiction between the stativity of the verb and the non-stativity essential to the progressive". This explains why HA does not have expressions like *\*gaaʕid yiʕrif\** 'he is knowing'.

The next section shows how HA clauses may be ambiguous between habitual and progressive actions, thus; the need for lexical aspect to unveil such ambiguity.

### 3. Ambiguous HA Clauses: Habitual vs. Progressive reading

Consider the sentence in (1).

- 1 a. *y-daxin-u* *Hinaak*  
 IMPF.3PL-smoke-3PL There  
 “They **smoke** there.” (Habitual – present)  
 “They **are smoking** there.” (Progressive – now)
- b. *kaan-u* *y-daxin-u* *Hinaak*  
 AUX.3PL IMPF.3PL-smoke 3PL There  
 “They **were smoking** there.” (Progressive – past)  
 “They **used to smoke** there.” (Habitual – Past)

In (1a) the lexical imperfective verb *y-daxin-u* ‘they smoke’ indicates present tense whereas in (1b) the auxiliary *kaan* incorporates with the imperfective verb form *y-daxin-u* ‘they smoke’ to encode a compound tense. However, the translation of (1a) shows that it is ambiguous between simple present and present habits. Likewise, the translation of (1b) shows ambiguity between past progressive and past habits. In both cases of (1b) *kaan* indicates that the tense is past and that the event is completed but still there is ambiguity of whether the smoking event was on-going or habitual. The examples in (1) are grammatical and the use of the aspectual elements is not obligatory. However, the examples remain ambiguous. For unveiling such ambiguity, HA has developed some aspectual markers; namely—*gaʕad* and *jalas*, along with their derivative forms.

This shows one similarity between some Arabic dialects. The use of the aspectual markers is not obligatory but maybe needed to unveil ambiguity. This is clear in the work on the aspectual elements of some Arabic dialects listed above in the background section. Recalling Caubet's (1991) examples, we see that *gaaʕidyishrab* (Moroccan) and ‘*ʕumbiyishrab*’ (Lebanese) ‘he is/has been drinking’ contain the aspectual elements of *gaaʕid* and *ʕum-* to lexically express progressivity. Contrary, *yishrab* ‘he drinks’ appears without any aspectual markers, and can be ambiguous if the sentence is uttered in a context to mean ‘he is drinking’. Notice that all three examples are grammatical though the latter is ambiguous.

In the next section, I briefly present the morphological properties of the HA developed aspectual markers. Then two respective sections present their syntactic properties and show their hierarchical representations.

#### 4. Morphological Properties of the Aktionsart

Looking at the morphological properties of the developed elements is needed to briefly show that the aspectual elements *jalas* and *gaṣad* and their derivatives are similar to other lexical forms in their formation processes. For the description of the morphological properties of HA, I mainly depend, on the one hand, on the major findings and descriptions of Arabic Morphology outlined by McCarthy (1979, 1993; 1990a, 1990b), Danks (2011) and Ryding (2005); and more specifically, on the other hand, on the findings and descriptions of HA Morphology outlined by (Al Zahrani, 2008, 2013; Feghali, 1991). For consistency, I follow Al Zahrani's (2013) way of glossing the examples and mapping the roots onto the patterns (see Chapter 3 in Al Zahrani (2013)).

Many linguists, including McCarthy (1979, 1993; McCarthy & Prince, 1990b), Ryding (2005), and Al Zahrani (2013), argue that the trilateral form is the simplest base form from which all the other root-related manifestations are derived. According to this view, the aspectual elements under study belong to the roots  $\sqrt{G\text{Ṣ}D}$  and  $\sqrt{JLS}$  that are mapped onto the Model of  $C_1aC_2aC_3$ . This model derives a perfective trilateral form, which is known as the simplest form. Thus, mapping the two roots onto the Model of  $C_1aC_2aC_3$  derives the trilateral base forms *jalas* and *gaṣad* 'he sat/has sat down' respectively. Their imperfective counterparts are *yi-jlis* and *y-ugṣud* 'he sits down'. Semantically, while these forms can be used in HA as normal lexical forms meaning 'sitting down' physically, they are used as aspectual markers to mean by extension 'staying', 'remaining' or 'has/had been in the state of'. This is the translation that I use in the paradigms below.

Morphologically, the aspectual verb forms *jalas* and *gaṣad* are similar to other Arabic lexical verbs such as *katab* 'he wrote/has written' and *yuktub* 'he writes/is writing' in that they must inflect for person, number and gender. Paradigms 1 and 2 show the perfective and imperfective forms of the root  $\sqrt{JLS}$ . Notice that replacing the radicals of the root  $\sqrt{JLS}$  in order with the radicals of the root  $\sqrt{G\text{Ṣ}D}$  produces the perfective and imperfective paradigms of  $\sqrt{G\text{Ṣ}D}$ . By "in order" I mean that the first radical of the root  $\sqrt{JLS}$ , which is (J) is replaced with the first radical of the root  $\sqrt{G\text{Ṣ}D}$ , the second is replaced with the second and the third is replaced with the third.

Paradigm 1: Perfective forms of the root  $\sqrt{JLS}$  inflecting for agreement markers

Person	Number	Gender	Suffix	Inflected form	Meaning
1	SG	M/F	<i>t</i>	<i>jalas-t</i>	“I had been in the state of”
1	PL	M/F	<i>na</i>	<i>jalas-na</i>	“We had been in the state of”
2	SG	M	<i>t</i>	<i>jalas-t</i>	“You had been in the state of”
2	SG	F	<i>ti</i>	<i>jalas-ti</i>	“You had been in the state of”
2	PL	M/F	<i>tum</i>	<i>jalas-tum</i>	“You had been in the state of”
3	SG	M	∅	<i>Jalas</i>	“He had been in the state of”
3	SG	F	<i>at</i>	<i>jalas-at</i>	“She had been in the state of”
3	PL	M/F	<i>u</i>	<i>jalas-u</i>	“They had been in the state of”

Paradigm 2: Imperfective forms of the root  $\sqrt{JLS}$  inflecting for agreement markers

Person	Number	Gender	Prefix	Suffix	Inflected form	Meaning
1	SG	M/F	-	-∅	<i>a-jlis</i>	“I have been in the state of...”
1	PL	M/F	-	-∅	<i>n-ijlis</i>	“We have been in the state of...”
2	SG	M	-	-∅	<i>t-ijlis</i>	“You have been in the state of...”
2	SG	F	-	-i	<i>t-ijlis-i</i>	“You have been in the state of...”
2	PL	M/F	-	-u(un)	<i>t-ijlis-u</i>	“You have been in the state of...”
3	SG	M	-	-∅	<i>y-ijlis</i>	“He has been in the state of...”
3	SG	F	-	-∅	<i>t-ijlis</i>	“She has been in the state of...”
3	PL	M/F	-	-u(un)	<i>y-ijlis-u</i>	“They have been in the state of...”

Paradigms 1 and 2 show that the aspectual perfective and imperfective forms inflect for Phi features (person, number and gender). These agreement features are expressed exclusively by prefixes in perfective forms while they are expressed mainly by prefixes and partly by suffixes in imperfective forms

The morphemes *jaalis* and *gaaʕid* ‘sitting down’ are derived on the morphological Model of  $C_1aaC_2iC_3$ , on which other HA active participial forms are derived, e.g., *kaatib* 'writer'. Thus, the aspectual markers *jaalis* and *gaaʕid* are the active participial forms indicating the doer of the action. With respect to the agreement features, the participial forms, unlike the perfective and imperfective forms, inflect only for number and gender features as shown in Paradigm 3.

Paradigm 3: Inflections of the participials *jaalis* and *gaaʕid*

Inflected forms	Inflected forms	Agreement Features	Meaning
<i>Jaalis</i>	<i>gaaʕid</i>	1 SG.M/2SG.M/3SG.M	I/You/He has/had been in the state of...
<i>jaalis-ah</i>	<i>gaaʕid-ah</i>	1 SG.F/2SG.F/3SG.F	I/You/She has/had been in the state of...
<i>jaalis-iin</i>	<i>gaaʕid-iin</i>	1PL/2PL/3PL	We/You/They have/had been in the state of...
<i>jaalis-aat</i>	<i>gaaʕid-aat</i>	3PL.F	They have/had been in the state of...

Paradigm 3 shows the following morphological properties. Singular masculine features are morphologically unmarked whereas feminine and plural features are marked by the suffixes *-ah* and *-iin* respectively. Yet, third person plural features can also be achieved through the suffix *-aat*. The translation of the forms includes both present and past tenses. This means that participials are tenseless. In other words, unlike perfective and imperfective forms, participials are not associated with tense and the latter is encoded by other means. Holes (2004: 122) states that "the participles have no fixed time reference – this has to be interpreted from the context". The agreement features of these participials will be recalled to show the agreement between these aspectual forms and the verb forms that they subcategorize for. The next section briefly presents the framework used in this paper to analyze the elements under study.

## 5. Framework

This current study builds its arguments and analysis on the findings of Al Zahrani (2013) who details the components and the underlying structure of the syntax of the HA dialect. Hence, this paper assumes the findings of Al Zahrani (2013) and builds its findings on it. In this section, I briefly show the main and general framework that pertains to the discussion of the HA aktionsart. For more of the components of the HA basic and underlying structure, the reader is advised to see Chapter four in Al Zahrani (2013).

I adopt the Principles and Parameters framework (P&P) (Chomsky: 1981, 1986) for the investigation of the syntactic properties of the HA aktionsart expressions that constitute the focus of this study. The P&P framework is an approach to syntax where a set of principles and parameters describes the human language faculty such that the principles express the basic aspects of the language faculty, which are innate, and the parameters capture the possible variation across languages (Chomsky, 1981, 1995). While using the P&P framework, other recent developments in the syntactic theory are also considered in the HA structure. This includes "the projection of multiple functional categories once represented as a single inflectional category (INFL), following the findings of Pollock (1989) and Kayne (1994), and the VP-internal Subject Hypothesis (Koopman & Sportiche, 1991) and elements of the Minimalism Program (Chomsky, 1991, 1995) such as feature checking as a motivation for head movement and operations including 'Merge'" (Al Zahrani 2013: 76).

The main point pertaining to the HA verb is that a HA verb has to undergo the syntactic operation of "Move". This includes the HA aspectual markers *jalas* and *gaʕad* as is shown in the section of "Hierarchical Representation" below. Recall that linguistic expressions are formed by the syntactic operation of "Merge" and "Move". Merge is a syntactic operation by which sentences are built out of phrases that are built out of words (Radford, 2004:66). That is, the noun 'book' and the determiner 'the' are merged to form the DP 'the book'. Hence, "Merge" is the operation that constitutes "new syntactic objects by recursively combining syntactic objects already formed" (Chametzky, 2000: 114). The other syntactic operation is "Move" that "is driven by morphological considerations, namely, the requirement that some feature F must be checked" (Chomsky, 1995: 262), so HA verbs move to check off the required features of taxis, aspect and tense. Checking is "a term describing a procedure which determines whether a lexical element

has the appropriate features before it is used in a position in sentence structure. It is a basic relation which allows one element to license another by checking off the features with which the latter is associated” (Bardovi-Harlig, 2008). The next section shows the syntactic properties of the element under study.

## 6. Syntactic Properties of the HA Aktionsart

As is stated above, HA uses the developed aspectual markers belonging to the roots  $\sqrt{G\text{?}D}$  and  $\sqrt{JLS}$  to encode lexical aspect. These aspectual forms canonically precede imperfective verb forms, but never perfective forms. They denote that the event is still on-going ‘unfinished’ at the moment of speaking or was on-going ‘past progressive’ when the time reference is past. This section briefly shows the HA developed aspectual markers and the verb forms they subcategorize for.

As this paper is not meant to investigate the similarities and differences between HA and SA, I briefly show why I label them as developed aspectual markers. I call them developed since HA is a descended variety of Standard Arabic where the latter uses these elements to explain their verbal senses only. That is any action that a person can do while in the state of physically sitting down, i.e., “sitting down and at the same time doing an action” such as ‘sitting down reading a book’, ‘sitting down writing a letter’ and ‘sitting down drinking tea’; but never as the sense of “remaining” or with verbs that cannot be done while being in the state of physically “sitting down”; hence, ‘\*sitting down swimming’, ‘\*sitting down running’, and “\*sitting down playing soccer” are all ill-formed. (see Al-Aswad (1983), Caubet (1991), Al-Khawalda (1997) and Ryding (2005) for more on SA Aspect).

In contrast to Standard Arabic, HA<sup>3</sup> has developed and extended their uses to include almost all verbs including those whose actions do not entail being physically in the state of sitting down as in the following examples. However, since these markers are sensitive to the kind of their following verb, they cannot be followed by stative verbs such as *y-inaam* ‘he sleeps’, *y-ibda* ‘he starts’, etc. Detailing such a point will take us far afield, but see what Vendler (1967a, 1967b) and Comrie (1976) have concluded (Section 1.2 above).

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<sup>3</sup> This is also the case in other Arabic varieties such as South East Turkish, Iraqi, Lebanese, Syrian, Tunisian, Moroccan, Algerian, Palestinian, Egyptian, Kuwaiti, Qatari and Sudanese and Malta, (See (Caubet, 1991; Dionisius & Amir, 1987) to name a few).

This paper does not explore the verbal and non-verbal uses of these forms when they convey the meaning of physically sitting down while doing an action, due to space and limitations. It focuses on the developed uses in which these forms are used to correspond to the English perfect and progressive interpretations, i.e., “*have/has/had been doing*” and “*be doing*”. Note that both aspectual markers are interchangeable in all the examples. All the examples are by the author himself unless otherwise stated. I will gloss the lexical aspectual markers as “AKT”, being lexical aspectual “*Aktionsart*” forms. Consider the examples in (2).

- |   |    |                   |                 |
|---|----|-------------------|-----------------|
| 2 | a. | <i>Jaalis</i>     | <i>y-isbaḥ</i>  |
|   |    | AKT.3SG.M         | IMPF.3SG.M-swim |
|   |    | “He is swimming”. |                 |
|   | b. | * <i>jaalis</i>   | <i>sabaḥ</i>    |
|   |    | AKT.3SG.M         | PF.3SG.M-swim   |
|   | c. | * <i>y-isbaḥ</i>  | <i>jaalis</i>   |
|   |    | IMPF.3SG.         | AKT.3SG.M-swim  |

The example in (2a) shows that the developed aspectual marker *jaalis* precedes the imperfective verb form *y-isbaḥ* to denote that the action is on-going at the moment of speaking. The aspectual element cannot subcategorize for perfective forms nor can it occur after the imperfective verb form as shown in the ungrammaticality of (2b-c) respectively. Notice that the absence of the developed aspectual marker does not render the sentence ungrammatical but makes the sentence ambiguous between the habitual interpretation “he swims” and the progressive interpretation “he is swimming”. This shows the crucial role that this developed aspectual marker plays to solve the ambiguity. Notice also that both the developed aspectual marker and the lexical verb agree in number and gender. While the third person singular masculine features are not morphologically marked on the aspectual marker *jaalis* in (2a), the evidence for agreement with their subcategorized verb forms comes from the examples in (3).

- |   |    |                               |                   |
|---|----|-------------------------------|-------------------|
| 3 | a. | <i>jaalis-ah</i>              | <i>t-isbaḥ</i>    |
|   |    | AKT-3SG.F                     | IMPF.3SG.F-swim   |
|   |    | “She is swimming”.            |                   |
|   | b. | <i>jaalis-aat</i>             | <i>y-isbaḥ-u</i>  |
|   |    | AKT-3PL.F                     | IMPF.3PL-swim-3PL |
|   |    | “They (female) are swimming.” |                   |

- |    |                    |                       |
|----|--------------------|-----------------------|
| c. | <i>*jaalis-ah</i>  | <i>n-isbah</i>        |
|    | AKT-3SG.F          | IMPF.1PL-swim         |
| d. | <i>*jaalis-aat</i> | <i>t-isbah-i</i>      |
|    | AKT-3PL.F          | IMPF.1SG.F-swim-1SG.F |

The examples in (3a-b) show that the lexical aspectual form agrees with the imperfective verb form in both number and gender. This agreement provides evidence that the developed aspectual forms must agree with the verb forms they subcategorize for. Otherwise, the sentence is rendered ungrammatical as shown in (3c-d).

What is common in examples (2a) and (3a-b) with respect to the subcategorizational properties of the developed aspectual markers is that they always subcategorize for imperfective verb forms and cannot be followed by perfective verb forms (Cf. (2b)). Thus, in (2a) and (3a-b) the combination of the participial aspectual elements *jaalis*, *jaalis-ah*, and *jaalis-aat* and the imperfective verb forms *y-isbah* ‘he swims/is swimming’, *t-isbah* ‘she swims/is swimming’ and *y-isbah-u* ‘they swim/are swimming’ indicates that the event is on-going at the time of utterance. In other words, the tense is present, which is the default unmarked tense in HA as argued by Al Zahrani (2013). Being unmarked, this shows evidence that these aspectual forms do not indicate tense. This argument is on a par with what some Arabic linguists (such as, Fassi, 1993; Holes, 2004; Ryding, 2005, amongst many others) who claim that it is generally true that participials do not encode tense. Rather, in these examples tense is inferred by the context, or the absence of a past tense marker.

Encoding past time interpretations of the aspectual participial elements can be achieved by the presence of the perfective auxiliary *kaan* before the aspectual element as in (4).

- |   |    |                                |                   |                   |
|---|----|--------------------------------|-------------------|-------------------|
| 4 | a. | <i>kaan-at</i>                 | <i>jaalis-ah</i>  | <i>t-isbah</i>    |
|   |    | AUX-3SG.F                      | AKT-3SG.F         | IMPF.3SG.F-swim   |
|   |    | “She was swimming”.            |                   |                   |
|   | b. | <i>kaan-u</i>                  | <i>jaalis-aat</i> | <i>y-isbah-u</i>  |
|   |    | AUX-3PL.F                      | AKT-3PL.F         | IMPF.3PL-swim-3PL |
|   |    | “They (female) were swimming.” |                   |                   |
|   | c. | <i>*jaalis-aat</i>             | <i>kaan-u</i>     | <i>y-isbah-u</i>  |
|   |    | AKT-3PL.F                      | AUX-3PL.F         | IMPF.3PL-swim-3PL |





## 7. Hierarchical Representation

From the overview we have seen in the previous sections above, one can conclude the following main features with respect to the syntactic properties of the developed aspectual markers.

- The developed aspectual markers always precede lexical verb forms,
- They always subcategorize for imperfective verb forms only,
- The participial aspectual markers *jaalis/gaafid* do not indicate tense and are not associated with any tenses, i.e., they are tenseless,
- Non-past tense is the default tense,
- Past tense is marked by the auxiliary *kaan*, or by the perfective aspectual marker *jalas/gaʕad*.
- The developed aspectual markers can be preceded by the imperfective auxiliary *ykuun* or its perfective counterpart *kaan*, and,
- This shows that they are aspectual elements (i.e., aktionsarten) and they can be preceded by aspectual auxiliaries and followed by imperfective aspect, i.e., an imperfective lexical verb.

What concerns us here is the projection of these aspectual markers. The question put forward, what is their position in the hierarchy? To answer this question we cannot ignore the functional categories of Tense (TP) and Aspect (AspP) and their syntactic properties since we have seen that these developed aspectual markers interact with the other functional categories of Tense and Aspect. The following are some findings from previous studies that have thoroughly investigated the hierarchical structure in Arabic, irrespective of dialect. These findings are adopted from Bahloul (1994, 2008), Aounet *al* (2010) and Al Zahrani (2013).

- Tense is an abstract feature of T°; non-past tense must always be paired with a perfective verb form in T°. Present tense is the default tense and it does not require any phonological content in T°. In other words, the emptiness of T° indicates that the tense is present.
- Tense (TP) dominates Aspect (AspP) and the latter is the position where the imperfective auxiliary verb *ykuun* is projected.

- AspP dominates Tax-AspP that is the place where lexical verbs move to from V<sup>o</sup>, which is dominated by Tax-AspP, to mix with the Taxis-Aspect features of the Arabic verb.

According to these findings besides the findings found in the previous sections in this paper, I argue that the developed aspectual markers are projected into the head of what I call **Aktionsart Phrase** (AktP). This head occurs between the functional heads of Tense (TP) and Tax-AspP. Thus, TP dominates AspP that dominates AktP that dominates Tax-AspP that dominates VP. The functional head of AktP interacts with the category of Tense (TP) when its developed participial element *jaalis/gaaʕid* is preceded by *kaan*. If the aspectual element is perfective, i.e., *jalas/gaʕad*, it is associated with past tense. Thus, it has to move higher from Akt<sup>o</sup> to T<sup>o</sup> via Asp<sup>o</sup>. They also interact with the imperfective auxiliary *ykuun* when the latter precedes a developed aspectual element to indicate that the event is progressive, non-punctual, not at the time of utterance but habitual. The developed aspectual elements interact with imperfective aspect (Tax-AspP) since they always precede imperfective verb forms and can only subcategorize for them.

To make these observations more technical, consider the following examples, repeated from the previous sections.

- 7 a. *Jaalis*                      *y-isbah*  
 AKT.3SG.M                      IMPF.3SG.M-swim  
 “He is swimming”.
- b. *kaan-u*                      *jaalis-aat*                      *y-isbah-u*  
 AUX.3PL                      AKT-3PL.F                      IMPF.3PL-swim-3PL  
 "They were swimming".

Example (7a) shows that the developed aspectual element *jaalis* precedes the lexical imperfective verb *y-isbah* whose radical root  $\sqrt{\text{SBH}}$  has moved from the head of VP to the head of Tax-AspP to merge with its Taxis-Aspectual properties. These taxis aspectual features trigger the movement of the root from V<sup>o</sup> to Tax-Asp<sup>o</sup> since the root cannot be used in isolation (Bahloul 2008). The lexical verb cannot move past its current position as it is blocked by the Aktionsart Phrase (AktP) where the element *jaalis* is base generated. The head of TP is empty so the interpreted tense is present as this tense feature does not require a phonological content in T<sup>o</sup>. These observations are illustrated in Figure 1. Notice that the head of AspP is the base generation

place of the auxiliary form (*kaan/ykuun*) which is absent in this example, so AspP is not occupied.

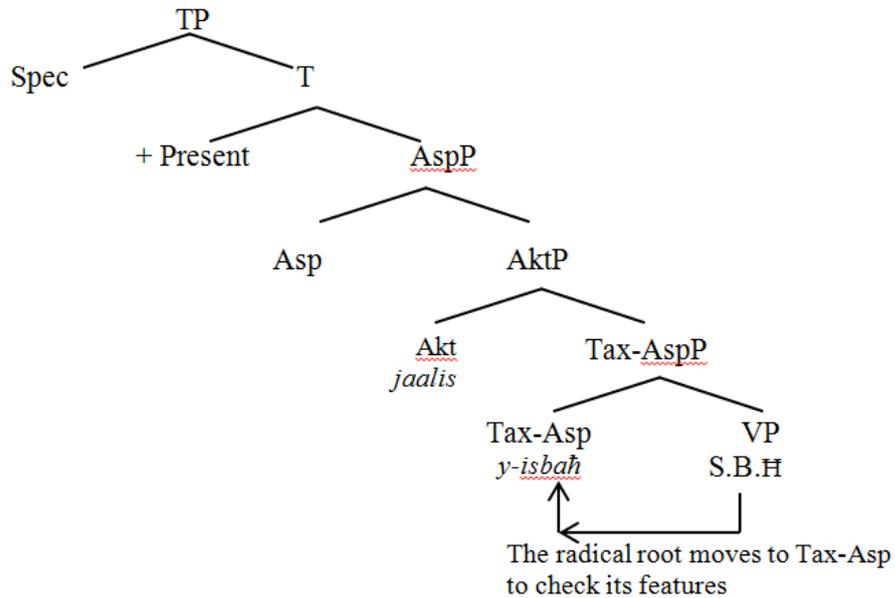


Figure 1. The lexical participial form is projected in AktP

Figure 1 shows that the tense in (7a) is present and that the non-verbal developed form *jaalis* does not move higher as this move is not triggered. Evidence can be yielded from (7b) where the head of TP is occupied by the perfective auxiliary *kaan-u* that moved from its base-generated position  $\text{Asp}^\circ$  to  $\text{T}^\circ$  to mark the past tense, as illustrated in Figure 2.

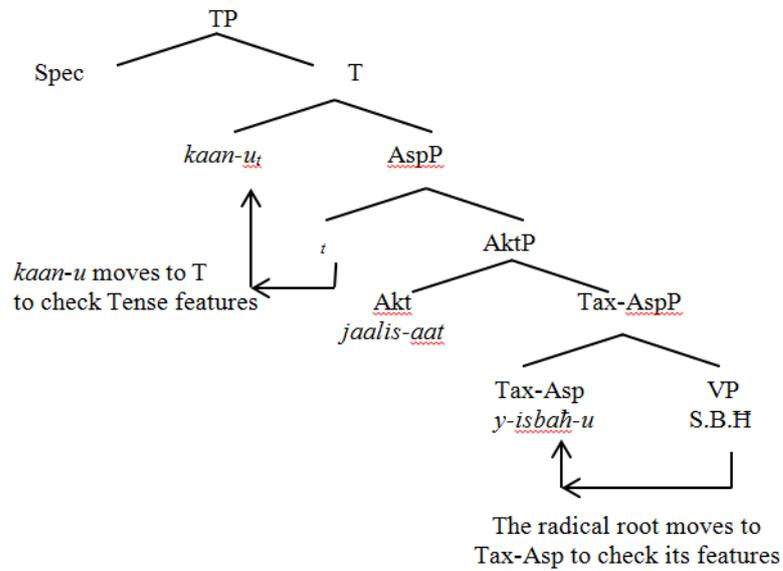


Figure 2. AktP is dominated by TP whose head is occupied by the perfective auxiliary

While in (7a-b) the Aktionsart Head (AktP) contains the non-verbal element *jaalis* that does not move higher to TP, in (8a) the head of AktP contains the perfective form *jalas-at* that must move to  $T^{\circ}$  via  $Asp^{\circ}$  to merge with the past tense feature.

- 8 a. *jalas-at*                      *t-isbah*  
 AKT.PF-3SG.F                      IMPF.3SG.F-swim  
 “She remained/had been swimming”.
- b. *t-ijlis-u*                      *t-isbah-u*  
 IMPF.3PL-AKT-3PL                      IMPF.3PL-swim-3PL  
 “You are swimming.” (Habitual but not now)

Example (8a) is illustrated in *Figure 3* (overleaf) where the movement of the perfective aspectual element *jalas-at* is triggered by the tense features of the TP projection, and the movement of the radical root S.B.H is triggered by the taxis-aspectual features in Tax-AspP.

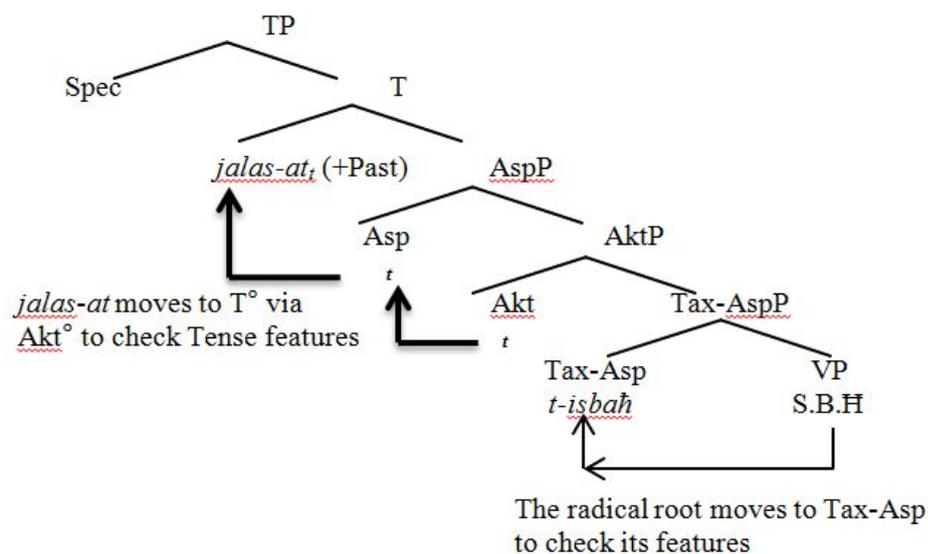


Figure 3. The element in AktP has moved higher to the head of TP

Contrary to the perfective form *jalas-at*, which is generated in Akt° before moving to T° via Asp° to mark the tense features in (8a) and illustrated in Figure 3, the imperfective element *t-ijlis-u* in (8b) does not move past its head (Akt°), as the tense is present and it does not require a phonological content in T°. Thus, the imperfective element remains in situ as there is nothing to trigger the movement.

### Conclusions

To recapitulate, this paper has looked at the HA developed aspectual markers belonging to the roots  $\sqrt{GSD}$  and  $\sqrt{JLS}$ . The root  $\sqrt{JLS}$  derive the perfective forms *jalas-t*, *jalas-na*, *jalas-t*, *jalas-ti*, *jalas-tum*, *jalas*, *jalas-at*, and *jalas-u*; the imperfective forms *a-jlis*, *n-ijlis*, *t-ijlis*, *t-ijlis-i*, *t-ijlis-u*, *y-ijlis*, *t-ijlis*, *y-ijlis-u*; and the participial forms *jaalis*, *jaalis-ah*, *jaalis-iin*, *jaalis-aat* (see the paradigms in Section 1.4). Replacing the radical  $\sqrt{JLS}$  by  $\sqrt{GSD}$  in these perfective, imperfective and participial markers yields the perfective, imperfective and participial markers of the root  $\sqrt{GSD}$ . The replacement must be in order as such the first radical is replaced by the first radical, and the second radical is replaced by the second radical, and so on. The paper has also shown the morphological properties and the inflectional paradigms of these markers where they inflect for agreement.

The aspectual markers encode the notion of ‘staying’, ‘remaining’ or ‘has/had been in the state of’. Thus, these markers encode the aktionsart properties, also known as lexical aspect.

These lexical aspectual markers express progressivity as such that they are used to unveil the ambiguity between progressive and habitual actions.

The paper argues that the developed aspectual markers are projected into the head of AktP occurring between the functional heads of Tense (TP) and Tax-AspP. Thus, TP dominates AspP that dominates AktP that dominates Tax-AspP that dominates VP.

The head of AktP interacts with TP when the participial element *jaalis/gaafid* is preceded by the perfective tense marker *kaan*. When AktP is occupied by the perfective aspectual element *jalas/gaʕad*, which is associated with past tense, the marker has to move from Akt° to T° via Asp°. This movement is triggered by the tense features of TP that have to be marked morphologically by the available perfective form *jalas/gaʕad*. The imperfective and the participial aspectual markers do not move from their base generation position Akt° as the present tense features do not need a morphological content in T°.

The participial markers interact with the imperfective auxiliary *ykuun* when the latter precedes the former to indicate that the event is progressive, non-punctual; not at the time of utterance but habitual. What is common to all these aspectual markers is that they can only subcategorize for imperfective aspect occupying Tax-AspP. In short, the HA developed aspectual elements always precede imperfective verb forms only.

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