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# DEVELOPMENT OF ASPECT AND TENSE IN SEMITIC LANGUAGES: TYPOLOGICAL CONSIDERATIONS

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A survey of pertinent literature reveals that many studies of aspect in Semitic languages do not pay a due attention to the crucial theoretical distinction of perfect and perfectivity. In this paper I will adopt the 'chronogenetic' model of the morphosyntactic development of tense and aspect tested for the Indo-European languages (HEWSON & BUBENIK 1997) that allows five major aspectual categories to be distinguished (prospective, inceptive, imperfective, perfective, perfect) within 'Event Time'. I will argue that the appearance in Arabic of the analytic double-finite perfect (of the type *kun-tu katab-tu* 'I had written') was the most significant innovation during the New Stage not to be found in the other Central Semitic languages. During the Middle Stage in Mishnaic Hebrew and Middle Aramaic the canonical progressive aspect was paradigmatized while Classical Arabic created its double-finite counterpart (*kān-a ya-ktub-u* 'he was writing'). The significance of this approach to the study of the universals of tense and aspect will be evaluated.

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A number of specialized studies of tense and aspect in Semitic languages are available (COHEN 1989; EISELE 1999, 2005; FLEISCH 1957; KURYŁOWICZ 1973; WOIDICH 1975, and other) and yet it is not easy for a non-specialist to form a coherent picture of their nature let alone of their historical development. In Section 2. I propose to take a fresh look at these issues in terms of our cognitive model for the study of tense and aspect in Indo-European languages (HEWSON & BUBENIK 1997). I will address some of the theoretical problems surrounding the use of the terms "perfect" and "perfective" and the suitability of the latter term for Semitic linguistics. In Section 3, I will establish the three-way aspectual system of the Old Stage (represented by Akkadian Imperfective – Completive – Perfect) as a starting point for our analysis in Section 4 of typological changes which took place during the Middle Stage (the rise of the progressive aspect with tense distinctions marked by the copula in Middle Hebrew and Aramaic). In Section 5. I will discuss the appearance of the analytic double-finite perfect in Arabic (of the type *kuntu katabtu* 'I had written') at variance with the other two Central Semitic languages (Hebrew and Aramaic) and further differentiation of the imperfective category in Arabic (the rise of the progressive and habitual aspect) will be examined. The typological trajectory from the Old Stage dominated by aspect via Mid-

dle Stage where we witness the rise of temporal distinctions implemented by the copula to a tense-prominent system of Arabic with two basic grammatical aspects (progressive and perfect) in three tenses will be summarized in Section 6.

## 1. TENSE AND ASPECT IN SEMITIC LANGUAGES

The system of 'tenses' in Central Semitic languages – as best known from Classical Arabic and Biblical Hebrew – is based on two morphological categories, called in most Western manuals (e.g. in widely used Abu-Chacra 2007) *perfect tense* (formed by suffixes) and *imperfect tense* (formed by prefixes and suffixes): *katab-a* 'he wrote/has written' and *ya-ktub-u* 'he writes/will write', respectively. This traditional Latin-based terminology is far from being satisfactory for Semitic languages since Latin distinguishes three temporal forms in two aspectual subsystems, called traditionally *Infectum* (Present, Imperfect, Future) versus *Perfectum* (Perfect, Pluperfect, Future Perfect). In more up-to-date linguistic studies (Comrie 1991; Fischer 2002; Bateson 2003) it is customary to refer to the two Semitic forms by twofold labels *Past*/*Perfective* versus *Non-Past*/*Imperfective*, indicating that these two forms express both aspect (perfective vs. imperfective) and tense (past vs. non-past).

One of the fundamental problems in the analysis of the system of Classical Arabic is the polysemy (double function) of the basic form *katab-a* 'he wrote' or 'he had written'. As my translation indicates this form could be labeled both preterite (Past) and pluperfect. Similarly in Biblical Hebrew *kāṯaḇ* of the original Hebrew text covers the scope of both the past perfective (Aorist) and the perfect in the Greek translation (Septuagint): *é-grap-s-e* 'he wrote' and *gé-graph-e* 'he has written' (All the functions of Hebrew *kāṯaḇ* have recently been surveyed by Anstey 2009). A serious terminological confusion is seen in the use of the term perfect for the perfective. The term *imperfective* is a major improvement over the traditional latinate term Imperfect (where it represents past imperfective). It represents a highly suitable label for *ya-ktub-u* in its use for both the incomplete (habitual) events in the present 'he writes' or the imagined events located in the future time zone, 'he will write', which are by their own nature incomplete, i.e. imperfective. On the other hand, to keep the traditional label Perfect for *perfective* is most undesirable in spite of its widespread use in Arabic and Hebrew linguistic studies. This problem becomes even more acute when dealing with Akkadian which distinguishes three aspectual categories labeled by tense terms Present – Preterite – Perfect in the influential grammar of Akkadian by von Soden (1952). Lipiński (2001: 345) uses the "convenient" terms imperfective and perfective (instead of Present and Preterite) but his definition of the perfective category confuses perfective with perfect ("it expresses […] the completed (perfect) […] aspect of the action"). In semantic terms, however, he correctly characterizes the grammatical opposition of imperfective versus perfective as "incomplete" versus "completed".

Brustad (2000: 165 ff.) argues that Comrie's (1976) three "crosslinguistic" aspectual categories, imperfective, perfective and perfect, are realized in Arabic as the "morphological forms" of the verb imperfective, perfective and participle (both active and passive participles can carry "perfect aspect"). In typological terms she observes that Slavic languages grammaticalize perfective and imperfective aspect in a "more elaborate system" than Arabic (and that English has a perfect which is similar to the Arabic), but in spite of their morphological

diversity she maintains that it must be shown that the meanings of these Arabic forms "conform" to general linguistic definitions of Comrie's three aspect. A propos the perfective she maintains that the Slavic perfective is highly "punctual" while that of the Arabic perfective appears to be more focused on the "completed nature" of the event. Similarly, Mitchell and El-Hassan (1994: 8) suggest that the "fulfilled, accomplished" nature of the perfective category is "at the root of Arabic distinctions of tense and mood".

However, it has to be made clear that the nature of the opposition of perfectivity in Central Semitic languages (based on the opposition of suffixal versus prefixal conjugation) is very different from the nature of perfectivity as familiar from several families of the Indo-European phylum, most notably Hellenic and Slavic. As argued by Cohen (1989), the term *perfective* if used for aspectual contrasts in languages as diverse as Slavic, Greek and Arabic is unsatisfactory. The fundamental difference between West and East Slavic systems (expressing the perfectivity by preverbs) and Semitic is the fact that the derivational processes in Slavic create new lexical items (e.g. Russian *on pisá-l* 'he writes' versus *na-píš-et'* 'he will write' while in Semitic the opposition of "accomplissement" is realized by means of two different conjugations "à l'intérieur du même verbe" (p. 170). In Greek the perfective category is realized by the *aorist* (to be discussed under). In Semitic Cohen operates with a binary contrast of "accompli" (completive) versus "inaccompli" (incompletive). I will address this issue in another theoretically oriented paper (forthcoming); in this historically and typologically oriented paper I will keep the established grammatical term *perfective* for Slavic and Greek, and will adopt the semantic term *completive* (Cohen's "accompli") for the binary systems of Arabic and Hebrew. Instead of the infelicitous (in English) term *incompletive* I shall keep the more or less satisfactory term *imperfective*.

It is normal in modern TA studies to distinguish between grammatical and lexical aspect (also called *Aktionsart*), and to distinguish three major lexical aspects: states, activities and accomplishments in the well-known terminology of Vendler (1967: 97ff). These three, for example, may be seen in Eisele's influential study of Cairene Arabic (1999, 2005), using a somewhat different terminology. It is universally recognized, in other words, that grammatical aspects interact constantly with lexical aspects, and that a full and proper aspectology must deal with both, and with the various ways in which they interact.

In the following expose it will be important to keep in mind the diachronic dimension of my inquiry to avoid unjustifiable anachronisms. Following Diakonoff (1988:17 ff.) I will allocate the individual Semitic languages to three stages: Old (or Ancient) Middle and New (or Late) Stage.

## 2. COGNITIVE APPROACH TO THE STUDY OF TENSE IN SEMITIC

In what follows I will tackle the whole issue of Semitic aspect from a different perspective of cognitive linguistics which we developed in our systemic analysis of tense and aspect in Indo-European languages (Hewson & Bubenik 1997). We represent major aspectual categories as cardinal positions within "Event Time" (op. cit., p. 14) as in (1) below, where the square brackets represent the initial ([) and final (]) moments of the event. In this diagram the subject may be represented as occupying one of five different positions, labeled A, B, C, D, E. In this way A represents the subject in a position before the event (prospective aspect);

B represents the subject at the very beginning of the event (inceptive aspect); C represents the subject with the event "in progress" (imperfective/progressive aspect); D represents the subject in the position of completing the event (perfective aspect or aorist); and E represents the subject in a position after the event (retrospective aspect or perfect). The difference ("distance") between D and E is not large and this fact explains the easy transformation of the perfect into the narrative tense (preterite) in many languages. In the case of Semitic languages, the Proto-Semitic "stative" (= verbal adjective) became the "neo-perfect" in Central Semitic languages; in Arabic with the rise of the analytic perfect (*kāna qad kataba*) the simple form *kataba* became an exponent of the past, aspectually ambiguous between perfect and completive.

(1) Systemic values of major aspectual categories within "Event Time" (Hewson & Bubenik 1997):

A[B ----------C----------D]E

Prospective|Inceptive Imperfective Perfective|Perfect

Given the importance of this theoretical issue for the subsequent typological analysis of Semitic languages, I propose to glance briefly on the well-known aspectual system of Ancient Greek. The exponent of the perfectivity in Ancient Greek, is the aorist (past perfective) formed by enlarging the root by the suffix *-s* and its perfect by partial reduplication. The whole system is based on three aspectual categories: Imperfective, Perfective and Perfect. We may label the former two as non-Perfect and portray the whole system on two levels: [– Perfect] versus [+ Perfect], and Imperfective vs. Perfective. The temporal contrast of [non-past] versus [past] will dichotomize the three aspectual categories as follows: [Present, Future, Perfect] versus [Imperfect, Aorist, Pluperfect]. This three-way aspectual contrast permeates the whole system of non-modal, modal (subjunctives and optatives), and quasi-nominal forms (participles and infinitives):

(2) Ancient Greek aspectual system

| | **Imperfective** | **Perfective** | **Perfect** |
|---|---|---|---|
| Non-Past | gráph-ō (Pres) | gráp-s-ō (Fut) | gé-graph-a (Perfect) |
| Past | é-graph-on (Impf) | é-grap-s-a (Aor) | e-ge-gráph-ēn (Plqpf) |
| Subjunctive | graph-ō | gráp-s-ō | ge-gráph-ō |
| Optative | graph-oimi | gráp-s-aimi | ge-gráph-oimi |
| Participles | gráph-ōn | gráp-s-ās | ge-graph-ōs |
| Infinitives | gráph-ein | gráp-s-ai | ge-graph-énai |

The salient feature of the Greek aspectual system is the presence of the temporal binary contrast of non-past – past within individual aspectual categories: present versus imperfect in the Imperfective, future vs. aorist in the Perfective, and the present versus past perfect in the Perfect (or Retrospective).

## 3. OLD STAGE IN SEMITIC

Contrasting Greek (2) with Semitic systems, Akkadian (3), Hebrew (20) Arabic (18), we immediately notice that the aspectual contrast of perfectivity is NOT found in quasinominal

forms. Akkadian and Arabic distinguish active vs. passive participles, and display several Aktionsart categories in their quasinominal systems (i.e. there are iterative, frequentative and causative participles and verbal nouns/infinitives) but they do not possess a three way aspectual contrast of the imperfective versus perfective versus perfect participle (as in Greek *gráph-ōn* 'writing' versus *gráp-s-ās* 'having written' versus *ge-graph-ṓs* 'having written'). Only Akkadian, the most archaic Semitic language, possess here a binary contrast of the imperfective versus perfect participle (*pāris-u(m)* 'separating' versus *mu-p-ta-rs-u(m)* 'having separated'). Similarly, the three-way aspectual contrast found with the Greek infinitive has no counterpart in Semitic; only in Akkadian there is the binary contrast of the verbal noun *parās-u(m)* and the infinitive of the perfect *pi-t-rus-u(m)*. Neither is the contrast of perfectivity found in modal forms in Akkadian. The forms expressing the wish (so-called 'precative' in the grammars of Akkadian, corresponding to the Greek optative) are available only in the completive and the stative categories: *l=iprus* (< *lū=i-prus*) 'may he separate, decide' versus *lū=baliṭ* 'may he live'.

In the indicative, the Akkadian system is based on a three-way aspectual contrast of Imperfective, Completive and Perfect: *i-parras* 'he separates', *i-prus* 'he separated' and *i-p-ta-ras* 'he has separated' (in Cohen's terminology (1989: 172–173) "présent inaccompli", "prétérit accompli" and "parfait accompli"). Compared with Ancient Greek (and other IE languages such as Sanskrit) with a binary contrast of tense operating on their three-way aspectual systems, in Akkadian there were no temporal contrasts as shown in (3), i.e. the whole verbal system was based on three aspects (in practical terms, the imperfective *i-parras* meant not only 'he separates' but also 'he will separate'), and the completive functioned also as the pluperfect ('he had separated'). The perfect formed by the infix *-ta-* expresses past events with lasting results (very much like the perfect in IE languages): *aṭṭardakkum* < *aṭ-t-ard-am-kum* 'now I have sent to you'. The fourth aspectual category, 'stative' (cf. von Soden 1952: 100) was actually the adjective finitized by means of pronominal clitics (*damq-āku* 'I am good', *damq-āta* 'you (M) are good', *damiq* 'he is good'):

(3) Akkadian aspectual system

| | **Imperfective** | **Completive** | **Perfect** | **Stative** |
|---|---|---|---|---|
| **Indicative** | i-parras<br>'he separates'<br>~ 'he will separate' | i-prus<br>'he separated'<br>(~'he had separated') | i-p-ta-ras<br>'he has separated' | damiq<br>'he is good' |
| **Precative**<br>(=optative) | | l=i-prus<br>'may he separate' | | lū baliṭ<br>'may he live' |
| **Participles** | pāris-u(m) | | mu-p-ta-r-su(m) | |
| **Infinitives** | parās-u(m) | | pi-t-rus-u(m) | |

Before addressing the issue of the rise of the progressive aspect in Central Semitic languages during their Middle Stage by means of the analytic constructions combining the copula and the participle (Section 4.), it should be observed that Akkadian never grammaticalized its verbum existentiae (*bašû* 'to be') as an auxiliary. Instead, it further differentiated its basic aspectual system by means of the derivational infix *-tan-* (inserted after the first radical) as shown in (4):

(4) Iterative/habitual counterparts to the basic aspectual categories in Akkadian

| | **Iterative/Habitual** | **Iterative/Completive** | **Iterative/Perfect** |
|---|---|---|---|
| **Indicative** | i-p-tan-arras | i-p-tan-ras | i-p-ta-tan-ras |
| | 'he keeps s.-ing' | 'he kept s.-ing' | 'he has been separating' |
| **Participle** | mu-p-tan-ris-u(m) | | mu-p-ta-rris-u(m) |
| **Infinitive** | pi-tan-rus-u(m) | | pi-ta-rrus-u(m) |

A propos the grammatical category of stative, one has to keep in mind that there also inherently stative verbs and that there is major difference between non-stative (i.e. active) verbs and stative verbs with respect to the imperfective category. With non-stative (active) verbs the meaning can be either present or future, with stative verbs, however, the imperfective category has the meaning of the inceptive/ingressive aspect*: i-dammiq* 'he will be good' while the present 'he is good' is expressed by the stative *damiq* (the stative is actually identical with the adjective *damq-u* 'good'(Masc) with the form *damiq* seen in the feminine form *damiq-tu*). The stative could be formed not only from adjectives (and nouns *bēl-ēku* 'I am the lord') but also from fientive (eventive) verbs: *āl-a* (ACC) *šakānum* 'to found the city' *āl-u* (NOM) *šakin* 'the city was/has been/is founded'; but there are quite a few transitive verbs whose stative possesses active meaning (see von Soden 1952: 100 ff.), e.g. *ṣabātum* 'to grasp' *maxārum* 'to receive': *maxir* 'he is the one who has received', 'he is the reciever'. Here Akkadian anticipates the rise of the so-called 'neo-perfect' in Central Semitic languages: *naxlapta labš-āku* (Stative) 'I am the one who has put the shirt on' > 'I have put [my] shirt on', Hebrew *lāḇaš-tī* (Completive) *kuttont-ī* 'I have put my shirt on', Arabic *labis-tu* (Completive) *qamīṣ-ī* 'I have put my shirt on'.

The completive category (called "preterite" in the grammars of Akkadian) expresses past completed events and the perfect is used for the past events with present relevance (in Classical Babylonian letters especially after the adverbs *inanna* and *anumma* 'now'; for details see von Soden 1952). The completive category is also used modally as precative and cohortative: *l-ibluṭ* 'may he live', *i nidbub* 'let us speak'), and so is the imperfective category in the formation of the prohibitive: *lā tapallax* 'don't be afraid' (cf. the formation of the prohibitive on the basis of the imperfective aspect in Slavic languages). Outside modal constructions the completive in Akkadian was limited to the expression of past completed events and was never used for future time reference – this function was the domain of the imperfective. The distinction between completive and jussive in Proto-Semitic was implemented by accent: **yá-prus* 'he separated' versus **ya-prús*, 'may he separate', respectively (see Hetzron 1969).

## 4. MIDDLE STAGE IN SEMITIC

This state of affairs changed fundamentally during the Middle and New Stages of Semitic languages represented by Mishnaic Hebrew, Middle Aramaic and Classical Arabic. The Proto-Semitic stative (CaCiC- , preserved in Akkadian *damiq* 'he is good') became the source of the (so-called) 'neo-perfect' which ended up as the perfective category (*kāṯaḇ* and *katab-a* 'he wrote') in Hebrew and Aramaic; during the New Stage and new perfect was created by analytic means in Classical Arabic.

In both Hebrew and Arabic – in the absence of the perfect (available in Akkadian) – the completive was used to express both the completed past events and the past events with present result (perfect): Hebrew *gāḏal-tā*, Arabic *kabur-ta* 'you were/are great'. Stative verbs in Hebrew and Arabic are marked (not consistently) by the second vowel *-u-* or *-i-* (Hebrew *qāṭōn* '(he was) small' < **qaṭun*, *kāḇēḏ* '(he was) heavy' < **kabid*) versus *-a-* of fientive (eventive verbs) but otherwise they are completely incorporated into the binary conjugation of the completive and imperfective. The meaning of the present perfect is found typically with verbs of resultant state: Hebrew *yāḏaʕ-tī*, Arabic *ʕaraf-tu* 'I know' (cf. the present perfect in Greek *é-gnō-ka* and Latin *nōv-ī* 'I learnt' >' I know'),

There are also numerous examples of the completive category used for future time reference, both perfective and imperfective; in Biblical Hebrew some of them are classified as "prophetic future" (cf. Rogland 2003):

(5) hā=ʕām ha=hōləḵīm b=a=ħōšeḵ rāʔū ʔōr gāḏōl [Is 9.1]
the people the walking+PL in=the=darkness see+COMPL+PL light great
'The people walking in the darkness will see the great light'
… kī ʔiššərūnī bānōṯ [Gen 30.13]
because call-happy+COMPL+3PL=me daughters
'(Happy am I!) For the young women will (be) call(ing) me happy'

This strategy was systematized in the peculiar Sequence of Tenses to be exemplified in (13)–(16).

In Classical Arabic the completive can be used for future time reference after the adverbial *mā* 'as long as, soon':

(6) rubba=mā ʕud-tu ʔilay=ka baʕda qalīlun (al-Manfalūṭī; in Cantarino 1974: 62)
often return+COMPL+1SG to=you after a while
'Perhaps I shall return to you soon'

During the Middle and the New Stage, Central Semitic languages rebuilt the old aspectual system (as represented by Akkadian) by analytic means. The major innovation was the rise of the analytic imperfective aspect whose meaning could be habitual (iterative, frequentative) or continuous (progressive). In Old (Biblical) Hebrew the imperfective aspect could be expressed by the two polysemous categories of the Imperfective and Completive:

(7) ma=təbaqqēš [Gen 37.15]
what=2SG+look-for+IMPERF
'What are you looking for ?'
ʔəšær lōʔ hālaḵ ba=ʕəṣaṯ rəšāʕīm [Ps 1.1]
who not walk+COMPL+3SG in=counsel wicked+PL
'(Blessed is the man), who does not walk in the counsel of the wicked'

During the later periods represented by Mishnaic Hebrew (of the 2nd c. BCE) and Middle Aramaic (represented by the Targumim and the two Talmuds of the 2nd – 6th c. CE) this state of affairs was changed by the rise of the analytic morphology of the impefective aspect. Two different strategies were used. Hebrew created the canonical progressive construction by using the copula in combination with the present participle, while Middle Aramaic attached

pronominal clitics to it. In Mishnaic Hebrew this strategy allowed for the formation of the progressive aspect in the past and future time zones, with the completive form of the copula and the present participle for the past events (*hāy-āh kōṯēb* 'he used to write, he was writing'), and most notably the combination *yihyēh kōṯēb* 'he will be writing', featuring the imperfective form of the copula grammaticalized as the future tense auxiliary, for the forthcoming events:

(8) Progressive aspect in Middle (Mishnaic) Hebrew

| | |
|---|---|
| **Present** | hū kōṯēb 'he [is] writing' |
| **Past** | hāy-āh kōṯēb 'he used to write, he was writing' |
| **Future** | yi-hyē kōṯēb 'he will be writing' |

Pertinent examples from Mishnaic Hebrew are given in (9):

(9) hāy-ū ʔōmər-īn [Mishnaic Hebrew, after Segal 1958: 156–157]
were+3Pl saying+Pl
'they used to say'
ʔənī hāyīṯī bāʔ b=ad=dæræk wə hiṭṭēṭī
I was going by=the=road and inclined+1SG
'I was going by the road and inclined'
kə=šæy=yihyū baʕəlē had=dīn ʕōməḏīn …lə=pānæy=kā
when=will be+3PL masters the=law standing+PL to=face=your
'when the litigants will be standing before you'

The same formations are also available in the imperative and infinitive:

(10) həwē məqabbēl versus qabbēl [Mishnaic Hebrew]
be+IMP receiving receive+IMP
'receive (regularly)!' 'receive!'

(cf. Russian imperfective *pri-nim-áj* versus vs. perfective imperative *pri-mí*)

hæ=ħāšūḏ lihyōṯ mōkēr
the=suspected to=be+INF selling
'he who is suspected to be selling'

Unlike Mishnaic Hebrew Middle Aramaic finitizes its present participle (Old Aramaic *kāṯēb* 'writing') by personal clitics. Examples in (11) are taken from the Babylonian Talmud (quoted after Nosek 2001):

(11) Finitization of the present participle by personal clitics in Jewish Babylonian Aramaic (of Babylonian Talmud)

| Jewish Babylonian Aramaic | Hebrew (Old) |
|---|---|
| (ka=)katev=na 'I write (habitually)', 'I am writing' | ʔənī kōṯēb |
| (ka=)katv=at 'You write', 'You are writing' | ʔattāh kōṯēb |
| (ka=)katv+in=an 'We write', 'We are writing' | (ʔə)naḥnū kōṯəb+īm |
| (ka=)katvi+=tu(n) 'You (Pl) write', 'You (Pl) are writing' | ʔattæm kōṯəb+īm (Pl/M) |

The preceding particle *ka*= resulted by a grammaticalization of the participle of the verb *qūm* 'rise, stand up' (*qāʔēm* > *qāʔē* > *qā* > *ka*)

Combined with the copula in the past this periphrastic formation can express a habitual or progressive aspect. At variance with Hebrew there need not be agreement in person and gender (but agreement in the plural is observed):

(12)

| Jewish Babylonian Aramaic | | | Mishnaic Hebrew | |
|---|---|---|---|---|
| hav-a | yatev | ‘he used to sit’ | hāy+āh | yōšēb̲ |
| was+M | sitting+M | | was+M | sitting+M |
| hav-a | yatv-a | ‘she used to sit’ | hāyət̲+āh | yōšəb̲+āh |
| was+M | sitting+F | | was+F | sitting +F |
| hav-a | ka=amej=na | ‘I used to say’ | hāyī+t̲ī | ʔōmēr |
| was+M | PRT=saying+1SG | | was+1SG | saying+M |
| hav-o | ka=azl-i | ‘they were going’ | hāy+ū | hōləḵ+īm |
| were+3PL | PRT=going+PL | | were+3PL/M | going+PL/M |

A well-known a morphosyntactic ‘peculiarity’ of Biblical Hebrew is the use of the completive category for future time reference in the narratives introduced by the imperfective; this so-called “consecutive perfect” is introduced by the conjunction *wə* ‘and’:

(13) yišlaḥ malʔāk̲ō wə-hislīʱ dark=ek̲ā [Gen 24.40]
3/SG/M+send+IMPF angel=his and make-prosper+COMPL+3/SG/M way=your
‘He will send his angel and make your way prosper’

The accentual difference between the ordinary completive and its consecutive variety is observable only in the 1st and 2nd Sg. That is in the dialogue projecting a sequence of events into the future time zone the first event is realized by the imperfective category; if the following event is expressed by the completive category its accent is placed on the last syllable. The completive used in its meaning of the past completed event is always accented on the penultimate. Contrast:

*hālák̲t̲ī* ‘I went’ with *wə=hālak̲t̲ʹī* ‘and I will go’ in Judges [1.3]:

(14) ʕəlē ʔittī… wə=nillāḥəmāh … wə=hālak̲t̲ʹī gam ʔənī [Judges 1.3]
come-up+IMP and=1Pl+fight+IMPF and=go+COMPL+1SG also I
‘Come up with me … that we may fight (against the Canaanites), and I likewise will go with you …’

As we saw above, there are also examples of the completive category used for future time reference outside the narratives:

(15) wat=tōmer lēʔā bə=ʔošrī kī ʔiššərū=nī bānōt̲ [Gen 30.13]
and=3/SG/F+say+IMPF Leah in=happiness=my for call+COMPL+3/PL=me daughters
‘And Leah said: “Happy am I” for the daughters will call me happy’

Vice versa, the imperfective can be used to refer to the past events in the narratives introduced by the completive; this so-called “consecutive imperfect” is introduced by the proclitic conjunction *wa=* followed by the reduplication of the initial consonant of the personal prefix:

(16) b=ay=yāmīm hā=hēm ħālāh ħizqiyyāhū …
in=the=days the=those become-sick+COMPL+3/SG Hezekiah
way=yāb̲ōʔ ʔēlāw yəšaʕyāhū [2 Kings 20.1]
and=3/SG+IMPF +come to=him Isaiah
‘In those days Hezekiah became sick …and Isaiah came to him’

The "consecutive imperfect" is distinguished from the ordinary imperfective by its accent: *way=yí-ktōb* 'and he wrote' versus imperfective *wə-yiktʼōb* 'and he will write' (with accent on the ultima). The form of the consecutive imperfect with the penultimate accent was inherited (cf. Hetzron's 1969 reconstruction of the Proto-Semitic perfect *yá-qṭul versus jussive *ya-qṭúl). On the other hand, desinential accent in the 1st and 2nd Sg in the consecutive perfect is an innovation of Old Hebrew. The system of consecutive tenses of Old Hebrew has its roots in the so-called 'syndetic parataxis' which is documented across the broad spectrum of Semitic languages. Von Soden (1952: 209) provides an example from Old Babylonian where the perfect *i-p-t-aras* may follow after the completive (his 'preterite') *i-prus* in the narration of consecutive events:

(17) kaspam aknuk=am=ma u-š-t-ābil=akkum (Old Babylonian)
silver+ACC 1SG+seal+COMPL=VENTIVE=and 1SG+PERF+bring=you+DAT
'I sealed the silver and I sent [it] to you'

Here the choice of the perfect form *u-š-t-ābil=akkum* (instead of the completive *u-š-ēbil=akkum*) indicates that the action "sending the silver" followed the action of "sealing" (with the modal nuance of the "immediate purpose" of sealing it). During the later periods similar instances of the use of two different aspectual forms for sequencing the events in the past are also available from Classical Arabic:

(18) ḍaraba=hā… wa=ya-qūl-u (example from Lipiński 2001: 350)
strike+COMPL+3SG/M=her… and=3SG/M+say+IMPERF+IND
'he struck her … and said'

After the conjunction *fa*= 'and', however, the completive is used to imply that the second action results from the previous one:

(19) ḍarabtu=hū fa=bakā (Lipiński 2001: 529)
strike+COMPL+1SG=him and=cry+COMPL+3G/M
'I beat him, so that he cried' (i.e. … so that he cried')

Old Hebrew went farthest in its systematization of the syndetic parataxis to make up for the 'deficiency' in expressing the three-way temporal distinctions by means of the simple binary aspectual system (of imperfective versus completive). The demise of the old system of the consecutive "perfect" and "imperfect" in Mishnaic Hebrew was also precipitated by the fact that the marking for basic temporal contrasts had to rely too much on the accentual differences. The rise of the Mishnaic system of the analytic formations exploiting the auxiliaries *hāyāh* 'he was' and *yihyēh* 'he will be' in conjunction with the participle solves this problem in an 'elegant' fashion. The appearance of an unambiguous periphrastic future tense and the reduction of the polysemy of the inherited completive allow us to portray the Mishnaic system as a tense-prominent versus the old syncretic aspect-prominent system of Old Hebrew; to put it succinctly, the old aspect-prominent system was temporalized. To quote Lipiński (2001: 354) a propos "modern" Semitic languages: "While the «classical» verbal system of the Semitic languages is based on aspect, modern speech tends to found the verb inflection on the notion of time and to express it by means of «tenses»."

(20) Aspect-prominent system of Old (Biblical) Hebrew

| | **Imperfective** | **Completive** |
|---|---|---|
| | (Present, Future) | (Past) |
| | yi-k̲t´ō̲b̲ | kā̲t̲á̲b̲-tī |
| | 'he writes, will write' | 'I wrote' |
| **Consecutive tenses** | wə=kā̲t̲a̲b̲-t´ī | way=yík̲tō̲b̲ |
| | 'and I will write' | 'and he wrote' |

(21) Tense-prominent system of Mishnaic Hebrew

| | **Present** | **Past** | **Future** |
|---|---|---|---|
| **Imperfective** | kō̲t̲ē̲b̲, yi-k̲t´ō̲b̲ | | yi-k̲t´ō̲b̲ |
| **Habitual/Progressive** | kō̲t̲ē̲b̲ | hāyāh kō̲t̲ē̲b̲ | yihyēh kō̲t̲ē̲b̲ |
| **Completive** | | kā̲t̲a̲b̲ | |

In Ethio-Semitic Geez the morphology of the imperfective category *yə-kattəb*, comparable with the Akkadian imperfective *i-parras*, represents a remarkable archaism in its exploitation of the reduplication of the second radical (its vocalic pattern, < **yu-kattib* indicates that this inflectional form arose by the grammaticalization of the derivational pattern of the factitive; cf. Akkadian *u-parris*).

On the other hand, Aramaic and Hebrew have not created (or rather 're-created') the Proto-Semitic perfect on analytic basis (this happened only much later on in Neo-Aramaic dialects, see Goldenberg 1992). The development of the 'be'-perfect is a salient innovation of the New Stage, represented by Classical Arabic.

## 5. NEW STAGE IN SEMITIC

During the New Stage represented by Classical Arabic the fundamental innovation was the rise of the analytic perfect of the type *kān-a (qad) katab-a* 'he had written') and the resulting system can be portrayed as recreating the old three-way aspectual system on an analytic basis:

(22) Classical Arabic aspectual system

| **Imperfective** | **Completive** | **Perfect** |
|---|---|---|
| ya-ktub-u | kataba | kāna (qad) kataba |
| 'he writes/will write' | 'he wrote' | 'he had written' |

Ethio-Semitic represented by Geez innovated in the same fashion by combining the verb 'to be' in the past (either *hallawa* or *kona* 'he was') with the completive category:

(23) Geez aspectual system

| **Imperfective** | **Completive** | **Perfect** |
|---|---|---|
| yə-kattəb | kataba | kona kataba |
| 'he writes/will write' | 'he wrote' | 'he had written' |

In Central Semitic languages there are two morphological relics of the Proto-Semitic aspectual system where the ablauted prefixal form (of the type Akkadian type *i-prus*, Arabic

*ya-ktub*) functioned as the completive category (Hetzron's 1969 Proto-Semitic *yá-qṭul). In Arabic this form (called jussive) is used after the negative particle *lam*, e.g. *lam yaktub* 'he didn't write'/ 'he hasn't written') and in the prohibitive (= negative imperative), e.g. *lā taktub* 'don't write'.

The rise of the analytic perfect based on the combination of the finite form of the main verb in the completive with the copula *kān-a* 'he/it was' represents a salient innovation of Arabic and Ethio-Semitic (Geez). This construction featuring double agreement never developed in Mishnaic Hebrew. In Aramaic, as we saw in (12), it is possible to combine the participle finitized by personal clitics with the copula in expressions of habituality. Aramaic thus stands a half way between Mishnaic Hebrew and Arabic:

(24) Analytic constructions with the copula

| | | |
|---|---|---|
| Mishnaic Hebrew | hāyī-ṯī ʔōmēr | 'I used to say' (i.e. not *hāyī-tī ʔāmar-tī) |
| Middle Aramaic | həwāh (kā=)ʔāmē-nā | 'I used to say' (no agreement in person) |
| Classical Arabic | kun-tu (qad) qul-tu | 'I had said' (with agreement in person) |

The structure *kān-a*... X *katab-a* 'it was … X wrote' can be derived from pseudo-relative clauses of the type *kānat ummuhu qad katabat* 'his mother was [a woman/one who] had already written' with the relative clause left unmarked when referring to an indefinite antecedent; in diachronic terms this structure could be an initial input to the grammaticalization process which ended up as the past perfect *kān-a qad katab-a* 'he had written'. In Geez there is a parallel construction combining the verb *kon-a* 'he/it was' with the main verb in the completive *kon-a katab-a* 'he had written' (in addition, Geez features another formation for the expressions of anteriority based on the combination of the verb *nabara* 'he remained' with the main verb in the semi-finite gerund, see Weninger 1999: 32).

(25) li=ðālika kānat iðā daxalat … qāma ilayhā [Haikal; in Cantarino 1974: 71]
for this reason be+COMPL+3SG/F when enter+COMPL+3SG/F rise+COMPL+3SG/M to=her
'For this reason, whenever she (had) entered … he used to stand up …'

In Arabic the anteriority is emphasized by the particle *qad.*

(26) kānat ummuhu qad samiʕat ṣawta sayyidinā [Husayn; in Cantarino 1974: 72]
be+COMPL+3SG/F mother=his PRT hear+COMPL+3SG/F voice+ACC master+GEN=our
'His mother had already heard the school teacher's voice'

As shown in (25) and (26) the auxiliary *kān-a* and the main verb are not necessarily adjacent; their semi-dependent status is reflected above all in their "disagreement" of the type *kān-a r-riǰāl qad daxal-ū* 'the men had entered' (versus *ar-riǰāl kān-ū qad daxal-ū* 'as for the men they had entered'). In other words, the grammaticalization process has not completed its course; the analytic perfect in Arabic has not reached the status of the compound perfect in IE languages where the auxiliary ('have' or 'be') and the participial form of the main verb are typically adjacent (e.g. Modern Greek *o Ianis íx-e γrap-si* or *íxe γráp-si o Ianis* 'John had written' but NOT **íxe o Ianis γráp-si*).

The formation of the analytic present perfect with the auxiliary in the imperfective (competing with the present perfect expressed by participle *huwa kātib* 'he has written') and the future perfect represent further development of this construction by means of auxiliation:

(27) The rise of the analytic perfect in Classical Arabic:

| | |
|---|---|
| katab-a | 'he wrote' |
| kān-a katab-a | 'he had written' (also 'he would have written') |
| ya-kūn-u katab-a | 'he has written' (also *huwa kātib*, see (33 b)) |
| sa(wfa) ya-kūn-u katab-a | 'he will have written' |

The formation of the future perfect exploits another innovation of Classical Arabic, namely the introduction of the future tense particle *sa(wfa)*. After all these innovations the aspectual system of Classical Arabic, diagrammed in (22) in its incipient stage, can be portrayed as possessing a three-way temporal contrast shown in (28); the formations of the perfect can be reinforced by the emphatic particle *qad*.

(28) Verbal system of Arabic with temporal contrasts implemented by the copula

| | **Present** | **Past** | **Future** |
|---|---|---|---|
| **Imperfective** | ya-ktub-u | kāna ya-ktub-u | sa=ya-ktub-u |
| | 'he writes/is writing' | 'he was writing' | 'he will write' |
| **Completive** | | katab-a | |
| | | 'he wrote' | |
| **Perfect** | ya-kūn-u (qad) katab-a | kān-a (qad) katab-a | sa=ya-kūn-u (qad) katab-a |
| | 'he (always) has written' | 'he had written' | 'he will have written |
| | | kāna sa=yaktubu | |
| | | 'he was going to write' | |

(Medieval Greek and Old Slavic offer close typological parallels in their keeping the old imperfective (Present and Imperfect) and perfective (Aorist) categories and forming the perfect on an analytic basis).

As far as the modal forms are concerned, the jussive is the main exponent of modality in Semitic languages, comparable with the precative of Akkadian and optative of Greek. Compared with Greek the Classical Arabic modal system appears to be more limited in its morphology. As we saw in (2) Greek displays its modal forms (subjunctive and optative) in all the three aspectual categories; in Classical Arabic the subjunctive can be formed only in the imperfective *ya-ktub-a* 'that he write' and in the perfect *ya-kūn-a qad kataba* 'that he have written'; their jussive counterparts remove the suffix *-a* in the imperfective form*(fal=)ya-ktub* 'may he write', and their analytic counterparts are available in the perfect: and *ya-kun qad kataba* 'may he have written'. In addition, however, in Arabic the completive category, *katab-a*, can also be used modally to express (un)real wishes with a limited number of verbs, such as 'have mercy', 'honor', 'bless', 'live'. All these forms are surveyed in (29):

(29) Modal system of Classical Arabic

| | **Imperfective** | **Completive** | **Perfect** |
|---|---|---|---|
| **Subjunctive** | ya-ktub-a | | ya-kūn-a qad kataba |
| | 'that he write' | | 'that he have written' |
| **Jussive** | (fal=)ya-ktub | ʕāš-a | (fal=)ya-kun qad kataba |
| | 'may he write' | 'may he live' | 'may he have written' |

The use of the completive to express wishes, such as *ʕāš-a 'l=malik* '[long] live the king', *akram-a=ka 'l=lāhu* 'May God honor you' parallels typologically the use of stative

for the same purpose in Akkadian (in 3). In Akkadian the modal use of stative can be reinforced by the particle *lū* (as in *lū baliṭ*) ‘may he live’), in Arabic by the particle *layta*, as in *layta=hu kāna hunā* ‘I wish he were here’ ~ ‘If only he were here’.

(30) akrama-ka llāhu
honor+3SG/M-you God
‘May God honor you!’

| | | |
|---|---|---|
| layta-hu | kān-a | hunā |
| PRT-him | be+COMPL+3SG/M | here |

‘I wish he were here’ ~ ‘If only he were here’

The completive is also used in the protasis and apodosis of conditional sentences with particles *law* ‘if’ and *la* ‘truly’, respectively:

(31) wa-law ’staṭaʕtu la-kuntu θāliθa-kum [Ṭaha Ḥusain; in Cantarino 1974: 62]
and-if can+COMPL+1SG PRT=be+COMPL+1SG third+ACC+your
‘If I could, I would go with you’ (lit. I would be your third)

In its expressions of the irrealis Arabic (*la=qul-ta* ‘you would say’ ~ ‘you would have said’) resembles Ancient Greek which uses the indicative forms (of either the imperfect *eleges an* ‘you would say’ or aorist *éleksas an* ‘you would have said’), while Latin uses the subjunctive forms (*diceres* or *dixisses*). Another way of forming the conditional (in colloquial) is to combine the past auxiliary *kāna* with the future tense *kān sa=yəktob* ‘he would write’. (This strategy is reminiscent of that used for the formation of the conditional in IE languages, e.g. in MnGreek *θa γráf-i* ‘he will write’‘he will write’ and *θa é-γraf-e* ‘he would write’). In Classical Arabic, as we saw in (28), *kāna sa=yaktubu*, is used for the future in the past ‘he was going to write’.

In negative statements the three-way aspectual contrast is given prominence in the shape of three different negative particles: *lā*, *mā* and *lam*. The negative particle *lā* is used with the imperfective (with reference to the present or future). *Mā*, the other negative particle, is very common in colloquial Arabic, and is used with the completive to express past completed events (but also present perfect with stative verbs). The negative particle *lam* combines with the jussive (the apocopated form) to express both aspects: past completive and (present perfect). In the pluperfect both options (*mā kāna* and *lam yakun*) are available.

(32) ʔinnā lā narā šayʔan ‘We do not see anything’ (Present)
mā kataba ‘he didn’t write’ (Past Completive)
mā nasītu-hu ‘I have not forgotten him’ (Present Perfect)
lam yaktub ‘he didn’t write’ (Past Completive)
ʔa lam tasʔal aḥadan? ‘Haven’t you asked anybody?’ (Present Perfect)
mā kāna qad kataba ~ lam yakun qad kataba ‘he had not written’ (Pluperfect)

According to Sībawaihi (Vol. I: 460), the difference between the aspectually ambiguous *lam ya-fʕal* ‘he didn’t do (it)’ and ‘he hasn’t done it’ and *mā faʕal-a* ‘he didn’t do (it)’ is rather that of emphasis, esp. when an oath word *wallāhi* ‘by God’ is inserted’. Accordingly, the difference between these two is in the degree of certainty: *(wallāhi) mā faʕal=hu* ‘(By God), he really didn’t do it’ or ‘He did NOT do it’ (versus *lam ya fʕal=hu* ‘he didn’t do it’.

In spoken Arabic the subtle contrast of (past) completive versus (present) perfect is implemented by the completive versus the present participle with active verbs (in keeping with its meaning of the present state resulting from the past event). Consider the following minimal pair of sentences from Moroccan Arabic:

| | | | | |
|---|---|---|---|---|
| (33 a) | ana | ktebt | ʕlih “felfel” | (Moroccan Arabic; Harrell 1962: 179) |
| | I | write+COMPL+1SG | on-it “pepper” | |
| | ‘I wrote “pepper” on it’ -> [and perhaps the label is no longer there] | | | |
| (33 b) | ana | kateb | ʕlih “felfel” | |
| | I | write+PART | on-it “felfel” | |
| | ‘I have written “pepper” on it’ -> [and the label is still there] | | | |

(33 a) expresses a past completed event without stipulating that the result of the past action still obtains in the present, while (33 b) exploiting the present participle expresses unambiguously the present result of the past action.

## 6. CONCLUSIONS AND DESIDERATA FOR FURTHER RESEARCH

In Section 1. I emphasized that the contrastive studies of the verbal systems of Afro-Asiatic and Indo-European languages have to pay due attention to the crucial theoretical distinction of perfect and perfectivity (I am planning to revisit this issue in another theoretically oriented paper). In Section 2. I used the model of our study of tense and aspect in Indo-European languages (Hewson & Bubenik 1997) which allows to distinguish five major aspectual categories (prospective, inceptive, imperfective, perfective and perfect) within “Event Time”. In I introduced typological parallels with Ancient Greek whose aspectual system is based on the double binary system of [perfect] vs. [-perfect], the latter subdivided into the familiar opposition of imperfective vs. perfective. For Semitic I adhered to the view that the familiar morphological opposition *katab-a* versus *ya-ktub-u* is best described by double temporo-aspectual labels past/completive versus non-past/imperfective (paralleling Cohen’s 1989 “accompli” vs. “inaccompli”). In Section 3. Akkadian (the Old Stage of Semitic languages) was introduced as a representative of a three-way aspectual system *i-parras – i-prus – i-p-ta-ras* (imperfective – completive – perfect). In Section 4. the Middle Stage – represented by Mishnaic Hebrew and Middle Aramaic – witnessed the rise of temporal distinctions by means of the copula in combination with the participle; in a sense the old aspectual system was temporalized. In Section 5. the appearance of the analytic double-finite perfect in Arabic (of the type *kuntu katabtu* ‘I had written) was described as the most significant innovation during the New Stage. It is not to be found in the other two Central Semitic languages – Hebrew and Aramaic. Old (Biblical) Hebrew preserved an earlier state of affairs in relying exclusively on the ambiguous ‘neo-perfect’ (of the type *kā<u>t</u>á<u>b</u>-tī*) to express both the perfect and completive aspect; but we also saw a significant relic of the earlier completive category in the construction of “the consecutive imperfect” (of the type *way=yíktō<u>b</u>* ‘and he wrote’) and the innovative “consecutive imperfect” (*wə=<u>k</u>āta<u>b</u>-t’ī* ‘and I will write’). Classical Arabic – representing the New Stage – completely remodeled the old aspectual system by creating the progressive aspect and analytic perfect on an analytic basis and forming the future by the particle *sa(wfa)*. These aspectual formations are double

finite with both the copula and the main verb inflected: *kāna yaktubu* lit. he-was he-writes > 'he was writing'. As was shown in (28) the innovative future in combination with these analytic formations establishes the Arabic verbal system as forming three tenses (present – past – future) in two analytic aspects (progressive and perfect) in both non-modal and modal forms (jussive and subjunctive).

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