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27. Word classes in Egyptian, Semitic and Cushitic (Afroasiatic)

Elsa Oréal and Martine Vanhove

27.1 Introduction

Today, the exact number of living Afroasiatic languages is still disputed, with upwards of 375 languages, though the actual number may be less (for a discussion, see Frajzyngier and Shay (2012: 1). The number of speakers is probably around 300,000,000. The languages are spoken in Northern and Central Africa, the Horn of Africa, the Arabian Peninsula, the Near and Middle East, and Central Asia (Arabic only).

Afroasiatic (AA) is the phylum with the longest written record: Over five millennia. Thus, it provides linguists with a wealth of documentation that, among other things, shows the fluidity of some word categories on a long-term scale. Nevertheless, this exceptional time-depth only applies to three of the six Afroasiatic families. Egyptian is attested since approximately 3,000 BC, over a period covering more than four and a half millennia, from ancient Egyptian to Coptic. The latter ceased to be spoken in the fifteenth century AD, but still survives as a liturgical language. For Semitic (98 languages), the first documents date back to the third millennium BC, and were written in Akkadian, a language that used to be spoken in Mesopotamia during the earliest Antiquity between the third and first millennium BC. In North Africa, where Berber (27 languages) is spoken, an old writing system on funerary steles is poorly understood. Its exact relationship with Berber is still difficult to figure out (Galand 2010: 16-17). Documentation increases in the Middle Ages for what is traditionally called “Old Berber”, whose affiliation to contemporary Berber is clear (Galand 2010: 18). The three other families, Chadic (202 languages), Cushitic (46 languages) and Omotic (24 languages) have no written tradition, and only started to be significantly described by scholars and missionaries during the nineteenth century, an undertaking which went along with European colonisation and Christianisation of Africa. A handful of these languages started to be written in the twentieth century AD. Somali (Cushitic) is a partial exception. An adapted Arabic script was in use as early as the 13th century AD for writing Arabic with some Somali words in varied proportions (Lewis 1958: 136). The literature also reports thus far undeciphered ancient scripts (Rigby 1877: 447).

Within the Afroasiatic phylum languages of the same period belonging to different groups show strong divergences (Cohen 1988b: 4), whereas across millennia languages belonging to the same group remain strikingly similar. Such a situation led Diakonoff (1988) to push very far back in time a Proto-Afroasiatic stage that he evaluated at 8,000 years BP. This explains why the hypothesis of an Afroasiatic linguistic unit was gradually built up and why its internal organization is still debated. The main discussions concerned the integration of Chadic within AA, whether or not Beja (North-Cushitic) constituted a separate branch (Hetzron 1980; Tosco 2003). Recently, the status of Omotic has given rise to many discussions. It was initially separated from Cushitic (Fleming 1969; Lamberti 1991), and some linguists (e.g. Theil 2012; Güldemann 2018) consider it as an independent phylum until further proven, without yet convincing most specialists of Omotic. The Glottologue catalogue (Hammarström et al. 2020) preferred a temporary careful exclusion, while the Ethnologue catalogue (SIL 2020) still includes Omotic within AA, as does Azeb (2012).

In two branches of Afroasiatic, Semitic and Berber, the word, for a large part of the vocabulary, consists of a discontinuous sequence of phoneme called the “root”, most often composed of two or three consonants, to which a small number of templates, (e.g. approx. 200 in Arabic and Akkadian is applied (see e.g. Cohen 1988c: 16-18; Gragg & Hoberman 2012: 166-167).

Templates add root vowels, consonants, reduplication, gemination, affixes, which convey particular semantic values, very abstract at times, as well as grammatical functions and categories. This non-concatenative structure differs between nouns and verbs. Nominal templates with affixes often select dedicated thematic bases that do not exist independently (e.g. in Arabic *maḥmil* ‘belt’, from the root *ḥ.m.l*, whereas **ḥmil* is not an independent word), while derived verbs with affixes may be directly built on a verbal templatic base (e.g. *ʕallama* ‘teach’ > *taʕallama* ‘to learn’) (Cohen 1988c: 17). The non-concatenative system is rather rigid in Semitic, Berber and Egyptian, but to various degrees depending on the language and the period in its history. It only survives marginally or not at all in the other families, Chadic, a large part of Cushitic, and Omotic. In all families, derivative transcategorical and intracategorical morphemes are limited to a series of phonemes, at least partly represented in each branch, the most common ones being *ʔ, h, s, ʃ, t, n, w, j, a, u* and *i* (Cohen 1988c: 20).

In this chapter, we focus on three families within the domains of our expertise: Ancient Egyptian, Semitic, and Cushitic, in this order. They allow us to illustrate different scenarios in the make-up and evolution of word categories, benefitting from the unique time-depth provided by two of these families. As required by the format of this part of the volume we discuss only the three main word classes: verbs, nouns, and adjectives. Other categories that played an important role in the grammaticalization of verbs will be mentioned when need be.

27.2 Ancient Egyptian

Ancient Egyptian is usually considered as an isolated family of the Afroasiatic phylum. Its specific position within the Egyptian family remains a much discussed topic and is still in need of further investigation, as well as, more generally, the relevance of the tree model for the Afroasiatic case. The oldest attested stage, Old Egyptian (3000-2000 BC) indeed presents some common features with Semitic and Berber, but also important differences. The language has verbs, nouns, adjectives, pronouns, prepositions and particles. The extent to which the root-and-pattern system known from Semitic languages is attested in Ancient Egyptian remains a matter of discussion. Biconsonantal and triconsonantal roots are mostly present but roots with one or four consonants are also attested. It is more difficult to observe specific templates since the writing system does not indicate vowels. Vocalic patterns cannot be reconstructed with certainty for Earlier Egyptian (3000-1300 BC). However, evidence from Coptic, the last stage in the history of the language written in the Greek alphabet, together with information brought by the transcription of Egyptian words in other ancient languages, still allows a partial reconstruction of some vocalic patterns. As far as word classes are concerned, the writing system of Earlier Egyptian offers some additional information that is worth taking into account. Graphemic classifiers regularly appear at the end of words, thus showing that scribes conceptualized at least some words as a kind of unit (Selz et al. 2017). Moreover, these signs are often related to the semantics of the lexeme, albeit not always in a clear manner. For example, the classifier of motion verbs is often a sign showing a pair of moving legs. These classifiers are not straightforwardly related to word classes. However, some of them appear to be relevant in the perspective of word classification inasmuch as they allow to disambiguate potentially homographic forms. A seated man used as a classifier at the end of a verb root may, for example, indicate that the root functions as an agent noun, thus

differentiating the meanings and functions of the same root and its different graphical forms. Consequently, a number of noun categories may be graphically distinguished.

The distinction between nouns and verbs prompted a heavy debate in Egyptian linguistics (Vernus 1997; reply by Satzinger and Shisha-Halevy 1999). Polotsky (1944) discovered the function of a verbal paradigm dedicated to utterances with marked information structure, where a circumstantial adjunct is in focus, while the rest of the informational content is presented as shared knowledge. These findings first pertained to Coptic forms but were later extended to other, previous, stages of the language. These forms called “second tenses”, “emphatic” or “nominal” forms syntactically share many features with substantives, while related “relative forms” appear to function as attributes. In some versions of this analysis, all verb forms are considered as better characterized according to their syntactic function in the sentence, as a nominal, an attribute, or even an adverb when the form is used as a circumstantial converb. This general line of structural analysis has been contested (Collier 1992; Winand 2007). Opponents to this theory highlight the verbal features of the forms. Without entering into too much detail here, one may state that a better understanding of the questions raised by these paradigms may be reached by assuming a diachronic perspective (Oréal 2014, 2017). It remains difficult to define the criteria which can be used to decide exactly when a form in a given construction no longer may be analysed as nominalisation in a periphrastic construction and has become a “true” verb form. Further research is still needed in Egyptian linguistics for a better understanding of this evolution.

27.2.1 From nouns to verbs: Transcategorical change and grammaticalization paths

Morphologically, Earlier Egyptian shows a number of verbal prefixes that also appear in other families of the Afroasiatic phylum, including *n-* for reflexive verbs or causative *s-*. However, there are strong differences between this language and the other branches, in accordance with the fact that the whole verbal system of Earlier Egyptian results from a diachronic process of renewal involving nominalisations in various constructions. Only one of these grams has a potential cognate in other branches of the Afroasiatic family, namely the Old Perfect. It is based on a periphrastic construction similar to the source construction of the West-Semitic Perfect or the Akkadian Stative (see § 27.3.2). However, one cannot simply infer from this analogy that these forms represent a common inheritance from a previous stage in the history of those languages. From a typological point of view, the source construction ‘past participle + zero copula + NP or pronoun’ is too common to exclude a similar independent development. Moreover, if the forms are similar, their function is distinct. The Egyptian Old Perfect is originally ambitransitive; the choice between an active and a passive reading depending on the presence of a second participant in the construction when possible, as illustrated in examples¹ (1-4).

- (1) jri-k sw
do\PTCP.PFV-1SG 3SG.M
‘I made him.’
- (2) jri-k jn ḥr
do\PTCP.PFV-1SG by Horus
‘I was made by Horus.’
- (3) jri wj ḥr
do\PTCP.PFV 1SG Horus
‘Horus made me.’

¹ Unless otherwise stated, examples are extracted from grammar books.

- (4) pri hr
 go\PTCP.PFV Horus
 ‘Horus is gone.’

The Egyptian Old Perfect cannot be formed from a substantive, as is the case in Akkadian. Thus, common features between both forms could boil down to the person endings. Pronominal morphology is indeed the most salient argument to ascertain membership within the Afroasiatic phylum.

The rest of the Earlier Egyptian conjugation system shows forms with other pronominal suffixes that are also used after prepositions or to encode the possessor after a noun. No trace of a prefix paradigm appears in this language, which is a crucial difference with Semitic (see § 27.4.1). While the Egyptian Old Perfect belongs to the category of ‘be-perfects’ with a zero copula as auxiliary, its functional successor as an anterior gram has some common features with a ‘have-perfect’ resulting from a possessive construction (Werning 2008).

- (5) X n=f
 X to=3SG.M
 ‘He has X.’ (lit. X is to him)

In historical sources, one can observe the final replacement of the Old Perfect as a main verbal predicate by the form known as *sdm-n* (+ NP or suffix pronoun). The latter thus results from the grammaticalization of a periphrastic construction based on the Old Perfect with an indefinite agent, encoded by a zero, as shown in Table 1.

Table 1: The morphogenesis of the ‘have-perfect’

<i>sdm</i>	∅	P
hear\PTCP.PFV	3SG.M	P
‘(He/one) has heard P.’		
>		
<i>sdm</i>	P	n=f
hear\PTCP.PFV	P	to=3SG.M
‘P was heard to him’		
>		
<i>sdm-n=f</i>	P	
hear-ANT=3SG.M	P	
‘He has heard P’		

In the non-past domain, the traditionally called *sdm(=f)* verb forms show a base *sdm* followed by a subject encoded like a possessor if pronominal. Such an encoding, along with its syntactic distribution, strongly argues for a nominal origin. Moreover, the basic form can be shown to have been subject to grammaticalization within various constructions whose syntactic and semantic features explain the emergence of distinct conventionalized TAM readings (Oréal 2017). From a typological point of view, it is interesting to note that some former nominal morphological features have been reinterpreted as verbal morphology within given constructions. Thus the suffix <-w>, graphically marked with some morphological classes of verbs, identifies class membership or indefiniteness on nominalisations (agent nouns but also action nouns). A modal form often designated as the *sdm-w-f* prospective form, showing the same ending, emerged from source constructions with a zero copula, as a complement of a perception verb, a manipulative verb, or with the stative negation *ni*.

- (6) $\text{s\ddot{d}m-w}$ \emptyset A/P
hear\NMLZ-INDF COP A/P
‘It is a (case of) hearing A/P.’ > ‘A should hear’ *or* ‘one should hear P.’
- (7) $\text{w\ddot{d}-n=k}$ hmsi-w ppy pn jr-gs=k
order-ANT=2SG.M sit\NMLZ-INDF Pepy this at-side=2SG.M
‘You ordered that this Pepy may sit at your side.’ (*Pyramid texts* 1480cP)
- (8) ni $\text{s\ddot{d}m-w}$ A/P
NEG.EX hear\NMLZ-INDF A/P
‘There is no hearing A/P.’ > ‘A should not hear’ *or* ‘one should not hear P.’

Negation in Earlier Egyptian was renewed according to a diachronic process known as the negative existential cycle, where the standard negation emerges as the existential negation combined with a nominalisation of the verb (Veselinova 2014; Oréal *forth.*). This change might have contributed to triggering the general renewal process of the verbal system by way of grammaticalizing nominalisations within various source constructions. Its precise role in this respect remains to be explored further.

In Earlier Egyptian, subordinating conjunctions mainly derive from the use of prepositions with former nominalisations reanalysed as verbal forms.

- (9) hr nfr=f
on be_good\NMLZ=3SG.M
‘Because he is good (lit. on his being good).’

27.2.2 Nouns

Gender (masculine and feminine) and number (singular, plural and recessive dual) marking are characteristic of the category of nouns (including adjectives). Case-marking in Proto-Egyptian remains purely hypothetical, based on postulated analogy with Semitic languages, as there are no traces in daughter languages. Egyptian nominal morphology includes suffixes (feminine *-t*, plural *-w*) and possibly internal changes (Loprieno 1995: 58). Various semantic templates have been hypothesized as characteristic of a number of nominals in Ancient Egyptian. For the older phase of the language, they remain partly speculative, and it is difficult to assess the extension of vocalic patterns. A prefix *m-* is attested for instrumental, place and agent nouns, without being as productive as in other Afroasiatic languages. Endings that appear graphically as the semi-vowels *-w* and *-j* also play a prominent role in nominal morphology. It can be shown that a marker *-w*, distinct from the plural ending, emerged as a semantic class membership marker that could be used to encode indefiniteness as well as a predicative function. In Earlier Egyptian, agent and patient nouns show a nominal template that may or may not have been distinct.

- (10) jri-w
do\PTCP-INDF
‘A doer (lit. one who does).’
- (11) mri-w
love\PTCP-INDF
‘Beloved (lit. a loved one).’

The *-j* ending is used to form a stative participle with passive or resultative readings.

- (12) jrij-j
do\PTCP.PFV-ADJ
'Done.'
- (13) mrij-j
love\PTCP.PFV-ADJ
'Loved.'

Specialized templates for semantic categories may be partially reconstructed. One observes a tendency to replace inflectional morphemes by analytic constructions over the long term. In Demotic, a later stage of the written language that is attested from about 650 BC to 450 AD, a construction is attested for some verbs, replacing the former agent noun with *rm̄t jw=f* + infinitive 'a person who does' + V-ing. This gave rise to the Coptic prefix *ref-*. It is relevant for the understanding of how the Egyptians themselves perceived the notion of word classes, that a preserved student's text contains a list of such compounds (Hess 1897: 147). The same pattern is well attested for names of professions. However, *rm̄t* 'person' is also used directly followed by another noun, and is sometimes joined by the genitive marker *n*, as is the case of *rm̄t nj Kmt* 'man of Egypt, Egyptian'. Such a formation gave rise to the Coptic prefix *rm(n)-* which forms names of professions. Thus, Earlier Egyptian *b3k* 'servant' has a functional successor *rm̄t b3k*, lit. 'person of work', 'labourer'. This form is emergent in Demotic, and is later found in Coptic *rmbeke* 'salaried worker' (Johnson 2017: 168).

Action nouns in Earlier Egyptian may also show various endings, including *-w* and *-t*. In Later Egyptian (1300 BC-1300 AD), while such nouns may survive, new forms emerge according to a compounding pattern. Thus, Demotic *gy* 'manner' is used in compounds as a prefix producing action nouns (Johnson 2017: 167): *gy n wnm* 'manner of eating > eating', *gy n pn^c* 'manner of changing > changing'.

In Earlier Egyptian, composition is also attested as a means to form a noun, generally with abstract semantics, based on an adjective, following a noun like *bw* or *st*, both meaning 'place':

- (14) nfr bw-nfr
good place-good
'Goodness.'
- (15) w^c bw-w^c
one place-one
'Unity.'
- (16) wšb st-wšb
answer place-answer
'Answer.'

In Later Egyptian, such a process takes place with the noun *md.t* 'affair', which developed into the Coptic abstract prefix *mnt-*, as for example with the noun meaning 'truth, justice'. In Earlier Egyptian, it was *m3^ct* 'truth'. In Demotic, it lost its ending *-t* like other feminine words and combined with the former *md.t*: *mt(.t) m3^c(.t)* > Coptic *mntme*.

27.2.3 Adjectives

The distinction between nouns and adjectives in Ancient Egyptian is not straightforward. There is no clear-cut morphological distinction between the two word-classes. However, the adjectives word class may be syntactically defined by the fact that gender is not an inherent part of an attributive adjective but dependent on the agreement with the head noun. From a

syntactic point of view, any adjective, included participial forms, can be used as a substantive. The only primary adjective is the quantifier *nb* ‘every’. Other adjectives may be analyzed as derived forms based on a noun or a preposition (most of which are grammaticalized from nouns) (i), or as participles of property-denoting verbs (ii).

(i) The ending *-j* used to derive adjectives in Semitic (the so-called *nisba*, see also §27.3.4) is attested in Ancient Egyptian as well. However, its functional and semantic extension is different, for it can be suffixed not only to a nominal base, as is the case in Arabic, but also to a preposition.

- (17) *njwt* > *njwt-j*
 City > ‘of the city.’
- (18) *ḥr* > *ḥr-j*
 On > ‘the one who is above.’

(ii) Property-denoting verbs are generally used with various types of predication to express a state or quality. A perfect gram can be used; this is a typologically common strategy.

- (19) *jw=f* *nfr-w*
 AUX=3SG.M be_perfect\PTCP.RESULT-PRED
 ‘He is well.’

The nominal predication involving independent pronouns for the first two persons or a construction with a copula is also possible. It encodes property as class membership.

- (20) *jnk nfr*
 1SG be_perfect\PTCP.PFV
 ‘I am a good one.’
- (21) *nfr* *pw*
 be_perfect\PTCP.PFV COP
 ‘It is a good one.’

However, one predication type appears to be dedicated to the expression of a property with an adjectival predicate. The word order is predicate-subject, and the subject, if pronominal, is dependent.

- (22) *nfr* *ṯw*
 be_perfect\PTCP.PFV 2SG.M
 ‘You are well.’

Both nominal and adjectival predications are unmarked for tense and may have a past or a non-past reading, depending on the context.

Forms with *-j-* also appear as predicates in the same kind of construction.

- (23) *n-j ṯw šrt*
 of-ADJ 2SG.M nostril
 ‘You belong to the nostril.’ (Pyramid text, § *1901e)

27.3 Semitic

Semitic languages extend throughout North Africa to the Near, and Middle, East.

Semitic is the AA branch where non-concatenative morphology is best represented. Arabic and Modern South Arabian languages (MSA) are the languages where such a system is the most robust. Usually, words are based on triconsonantal roots and various templates, including a vocalic alternation in the stem. For the evolution of word categories, we can rely on Cohen (1984), who thoroughly studied the role of syntax, namely verb-less sentences and auxiliaries, in the evolution of the verbal system.

Semitic languages, at any stage of their known history, make a clear categorical distinction between nouns and verbs. The distinction is based on morphological features and distributional properties, not only functional or syntactic ones, since in many Semitic languages the predicative function is not restricted to verbs. Nouns can be used as predicates without any overt predicative element. Linear order and intonation may be the only cues that signal subject and predicative functions, as opposed to noun phrases. Compare (24a) and (24b) from Ge'ez, a South Semitic language of the Ethiopic branch:

Ge'ez

- (24) a 'ab ḏaḥāy
 father sun
 'The Father is the sun.' (Cohen 1984: 19)
- b ḏaḥāy 'ab
 sun father
 'The sun is the Father.' (Cohen 1984: 19)

In Ge'ez there are often morphemes that mark the functions of juxtaposed nouns, e.g. agreement in gender and number on the nominal predicate and copulas (Cohen 1984: 158).

Even if the verb-noun distinction is not up for debate, the fluidity between the two categories – from nouns to verbs – has prevailed throughout the history of Semitic languages, as in Egyptian.

27.3.2 Verbs

a. There are at least two verb paradigms based on an aspectual opposition between a perfective and an imperfective. Only the imperfective with prefixes can be reconstructed to the proto-stage. The paradigms consist in a theme (i.e. a root and a template) and inflectional morphemes (prefixes or suffixes), which vary for person, number and gender. The perfective suffixes can be traced back to verb-less clauses composed of a verbal-nominal form and a personal pronoun (Cohen 1988c: 24). In this respect, the origin of the Akkadian (an ancient language of Mesopotamia) stative form is quite transparent: It is built on a specific theme derived from the verb root, CaCiC- (CaCC- before a vowel), for tri-consonantal roots, and subject personal pronouns. Examples (25-27) show the parallel constructions of a verb-less sentence with a personal pronoun functioning as a subject suffix on a noun (25), an adjective (26), and a stative form based on the verbal-nominal template (27).

Akkadian

- (25) ʃarra:q-a:-ku
 thief-DET-1SG
 'I am a thief.' (Cohen 1988d: 46)
- (26) ʃurrux-a:-ku
 magnificent-DET-1SG
 'I am magnificent.' (Cohen 1984: 247)

- (27) *gafr-a:-ku*
 being.powerful-DET-1SG
 ‘I am powerful.’ (Cohen 1984: 245)

Since a third person subject can be either a pronoun or a noun, the stative third person is the bare verbal-nominal form: *gafr* ‘he is powerful’.

b. Whereas the Akkadian stative form never became fully integrated in the verbal system (Cohen 1984: 247), it is admitted that a similar construction is the source of the perfective aspect in Arabic and Ge’ez. The correspondence between personal indices and personal pronouns is not always straightforward, since analogical reformation and phonetic reductions took place differently in the two languages on the basis of independent or suffix pronouns. Third persons retained their gender and number nominal morphemes (e.g. *-at* for F.SG.). Table 2 displays the two sets of pronouns in Classical Arabic, and Table 3 the perfective paradigm.

Table 2: Classical Arabic independent and suffix pronouns

	Independent pronouns			Suffix pronouns		
	sg.	dual	pl.	sg.	dual	pl.
1	<i>?ana:</i>		<i>naħnu</i>	<i>-i: / -ni:</i>		<i>-na:</i>
2m	<i>?anta</i>	<i>?antum:</i>	<i>?antum</i>	<i>-ka</i>	<i>-kuma:</i>	<i>-kum</i>
2f	<i>?anti</i>		<i>?antunna</i>	<i>-ki</i>		<i>-kunna</i>
3m	<i>huwa</i>	<i>huma:</i>	<i>hum</i>	<i>-hu</i>	<i>-huma:</i>	<i>-hum</i>
3f	<i>hija</i>		<i>hunna</i>	<i>-ha:</i>		<i>-hunna</i>

Table 3: Classical Arabic perfective paradigm of *katab* ‘write’

	sg.	dual	pl.
1	<i>katab-tu</i>		<i>katab-na:</i>
2m	<i>katab-ta</i>	<i>katab-tuma:</i>	<i>katab-tum</i>
2f	<i>katab-ti</i>		<i>katab-tunna</i>
3m	<i>katab-a</i>	<i>katab-a:</i>	<i>katab-u:</i>
3f	<i>katab-at</i>	<i>katab-ta:</i>	<i>katab-na</i>

Table 4 shows the parallelism between the Akkadian stative paradigm, the perfect in Ge’ez and the perfective in Arabic.

Table 4: Paradigms of Akkadian stative, Ge’ez perfect, and Classical Arabic perfective

		Stative	Perfect	Perfective
		Akkadian	Ge’ez	Arabic
sg	1	<i>parsa:ku</i>	<i>gabarku</i>	<i>labistu</i>
	2m	<i>parsa:ta</i>	<i>gabarka</i>	<i>labista</i>
	2f	<i>parsa:ti</i>	<i>gabarki</i>	<i>labisti</i>
	3m	<i>paris</i>	<i>gabra</i>	<i>labisa</i>
	3f	<i>parsat</i>	<i>gabrat</i>	<i>labisat</i>
pl	1	<i>parsa:nu</i>	<i>gabarna</i>	<i>labisna:</i>
	2m	<i>parsa:tunu</i>	<i>gabarkəmu</i>	<i>labistum</i>
	2f	<i>parsa:tina</i>	<i>gabarkən</i>	<i>labistunna</i>
	3m	<i>parsu:</i>	<i>gabru</i>	<i>labisu:</i>
	3f	<i>parsa:</i>	<i>gabra:</i>	<i>labisna</i>

(from Cohen 1984: 109-110)

c. In Neo-Syriac, an endangered language of the Middle-East, the verbal system was renewed by means of old participial forms, active and passive, and the infinitive. For the

imperfective, reduced forms of independent personal pronouns were affixed to the active participle, and for the preterit a directional preposition and the suffix pronouns were added to the passive participle (Cohen 1988f: 100; 1984: 510-513). Table 5 presents the imperfective, the preterit and their reconstructions.

Table 5: Imperfective and preterit in Neo-Syriac

	IPFV	origin	PRF	origin
1sg.m	<i>garf-ən</i>	* <i>ga:ri:f ʔana</i>	<i>grif-li</i>	* <i>grifl-i</i>
1sg.f	<i>garf-an</i>	* <i>garfa: ʔana</i>		
2sg.m	<i>garf-ət</i>	* <i>ga:ri:f at</i>	<i>grif-lox</i>	* <i>grifl-ox</i>
2sg.f	<i>garf-at</i>	* <i>ga:rfa: at(i)</i>	<i>grif-lax</i>	* <i>grifl-ax</i>
3sg.m	<i>ga:ri:f</i>	* <i>ga:ri:f</i>	<i>grif-le</i>	* <i>grifl-e</i>
3sg.f	<i>garf-a</i>	* <i>garfa:</i>	<i>grif-la</i>	* <i>grifl-a</i>
1pl	<i>garf-ax</i>	* <i>garfi: axnan</i>	<i>grif-lan</i>	* <i>grifl-an</i>
2pl	<i>garf-i:tun</i>	* <i>garfi: atun</i>	<i>grif-lo.xu</i>	* <i>grifl-o.xu</i>
3pl	<i>garf-i</i>	* <i>garfi:</i>	<i>grif-lon</i>	* <i>grifl-on</i>

(adapted from Cohen 1984: 512-513)

d. A large part of today's Arabic dialects (in particular the so-called 'sedentary dialects'), and Modern Hebrew have undergone an expansion process of their TAM paradigms partly similar to that of Neo-Syriac. In the Arabic varieties, one of the new paradigms was grammaticalized from the active participle templates (including gender and number nominal markers, but without agglutinated pronouns). Most often, they are limited to motion and posture verbs, and to mark the progressive aspect. In Modern Hebrew active participle templates have expanded to all semantic types of verbs to mark present tense.

Moroccan Arabic is one of the dialects that developed a more complex system. The former active participle expresses different TAM values depending on semantic classes. Below is a simplified version of Caubet's (1993: 223-237) analysis of the Fez variety.

Verb class 1 (V1) comprises motion verbs and verbs indicating body and intellectual activities: The former active participle is either an *actual*, a *progressive* or a *prospective*.

Verb class 2 (V2), the most numerous one, cannot be characterized semantically (but contains no V1 or V3): The active participle is either the sole *perfect*, a particular type of *perfect* and a *prospective*, or a particular type of *perfect* and *actual*. Some verbs have all three values.

Verb class 3 (V3) contains inchoative and middle verbs. They have not incorporated the active participle in their system.

Moroccan Arabic

- (28) ʔa:-ni na:zl-a mən əʂ-ʂaħ
 here.is-1SG descend\PTCP.ACT-SG.F from ART-terrace
 'Here I am, going down from the terrace.' (V1, progressive; Caubet 1993: 224)
- (29) yədda a:na ʔa:lʃ-a l-<la ville>
 tomorrow 1SG go_up\PTCP.ACT-SG.F ART-the town
 'Tomorrow, I am going up to town.' (V1, prospective; Caubet 1993: 226)
- (30) ʂa:fi ھا:ʒəm l-u
 enough bleed\PTCP.ACT.SG.M to-3SG
 'That's it! He has bled him.' (V2, perfect; Caubet 1993: 232)

- (31) ħna za:r-i:n yədda
 1PL sow\PTCP.ACT-PL tomorrow
 ‘We are sowing tomorrow.’ (V2 prospective; Caubet 1993: 233)
- (32) ra:-ni fa:hm-a ʃnu ka-t-gu:l da:ba
 here.is-1SG understand\PTCP.ACT-SG.F what IPFV-2SG-say now
 ‘But I understand what you are saying!’ (V2 actual; Caubet 1993: 234)

e. Semitic languages also have series of derived non-finite forms with dedicated templates, whose number and functions vary depending on the language. They mark various voices and semantic values, such as middle, passive, reciprocal, reflexive, or intensive. They may have a more abstract function such as that of transitivizer or denominative.

In dialectal varieties of Arabic, verbal templates are still productive. Only in a few varieties that have undergone extended contact with European languages do they tend to collapse. The system is now largely frozen in Maltese (Vanhove 1993: 26), in contact with Sicilian, Italian and more recently English, and in Cypriote Arabic (Roth 1975: 91), in contact with Greek.

27.3.3 Nouns

The nominal category can be divided into several sub-categories on morphological grounds, marking more or less abstract semantic categories.

a. In Ancient Semitic languages (Akkadian, Amorite, Ugaritic, old stages of Ge’ez), nouns are marked for case. This system is still present in Classical Arabic, today’s written Arabic, and Modern South Arabian (e.g. Mehri, Soqotri) spoken in Yemen and Oman. Case is maximally differentiated in the singular, marked by vocalic suffixes, and is identical in all languages: *-u* marks subjects, *-a* direct objects, *-i* indirect objects. A nasal consonant *-m* or *-n* is added to these suffixes under various conditions. In Classical Arabic, *-n* occurs with indefinite nouns. In Biblical Hebrew, Biblical Aramaic, and in today’s spoken varieties of Arabic, the case system collapsed, as in most other contemporary Semitic languages, with the exception of MSA and Amharic (spoken in Ethiopia). In the latter, only an accusative marker *-n* survives with definite nouns (Meyer 2011: 1192).

b. Most often, a root has both verbal and nominal templates that clearly differ from each other. A few are only nominal, e.g. *kalb-* ‘dog’. Some templates are intermediary between nouns and verbs in their syntactic behaviour, such as in the case for *masdars* (a kind of infinitive), and for active and passive participles.

Classical Arabic has no less than 44 masdar templates for verbs in the base form (Blachère and Gaudfroy-Demombynes 1975: 78), e.g. CuCu:C- for motion and posture verbs with the CaCaC- perfective template: *daxal-a* ‘he entered’, *duxu:l-* ‘the fact of entering’; CaCa:C-at- for verbs denoting properties with the template CaCuC-a: *saʃud-a* ‘he was happy’, *saʃa:d-at-* ‘being happy’.

Some templates correlate with precise semantic fields: CiCa:C-at- indicates a profession or a function: *taɖzar-a* ‘he traded’, *tiɖa:r-at-* ‘trader’. CaCCa:C- has either an intensive meaning (*ʔakkal-* ‘glutton’, *ʔakal-a* ‘he ate’), or denotes nouns of artisans (*xabba:z-* ‘baker’, *xubz-* ‘bread’). CiCC-at- is a template for nouns of manner (*kitb-at-* ‘way of writing’), or of parts (*firq-at-* ‘sect, party’, *faraq-a* ‘he broke’). ma-CCaC- and ma-CCiC- indicate place names (*ma-ɖʒlis-* ‘audience room’). mi-CCa(:)C- is a template for instrument nouns (*mi-fta:ħ-* ‘key’).

In dialectal varieties of Arabic, nominal templates are still robust. This is far less the case for Maltese and Cypriot Arabic.

c. In Semitic, nominal number is overtly marked for plural, either by dedicated suffixes (often *-Vm* or *-Vn* in the masculine), or more frequently by specific templates. The proportion between the two strategies is the reverse in some modern languages, e.g. Amharic.

Classical Arabic has at least 30 plural templates which are not predictable on the basis of the singular: *kita:b* ‘book’, pl. *kutub*, *kalb* ‘dog’, pl. *kila:b*. As those examples show, the same template may be plural for one word and singular for another.

Dual is marked by a suffix in Old Semitic (Akkadian, Biblical Hebrew, Biblical Aramaic, Ugaritic, Ancient South Arabian, Classical Arabic, but not Ge’ez). It is lost or unproductive in modern languages, except MSA.

d. Feminine is marked on nouns by a suffix (usually *-(a)(t)*), a morpheme which is actually attested in all branches of AA, except Omotic), while masculine is unmarked: Ge’ez *bəʔesi* ‘man’, *bəʔesi-t* ‘woman’. A few feminine nouns are not overtly marked: Classical Arabic *da:r-* ‘house’, *bi:r-* ‘well’, *fams-* ‘sun’. Amharic has lost the morpheme on the noun, but it shows up in the singular as agreement marking on determiners and verbs (Kapeliuk 1988: 151):

- (33) (a) *dəmät-wa* (b) *dəmät-u*
 cat-DEF:F cat-DEF:(M)
 ‘The (female) cat.’ ‘The (male) cat.’ (Meyer 2011: 1191)

27.3.4 Adjectives

Although the distinction between noun and adjective categories is often not straightforward, there are a few differences and particularities that we want to discuss here.

a. In many languages, only the morphosyntactic context can help decide whether a template has a nominal or an adjectival reading. For instance, in Amharic there is no clear-cut boundary between the two (Meyer 2011: 1187-1189).

Amharic

- (34) *kä-dähna täwäläd* *wäym kä-dähna tätäga!* (*common noun*)
 from-good be_born:IMP:2SG.M or with-good be_near:IMP:2SG.M
 ‘Be born into a well-to-do [family] or be a protégé of one!’ (Meyer 2011: 1189)

- (35) *dähna säw* (*adjective*)
 good person
 ‘Good, honest, polite person.’ (Meyer 2011: 1189)

However, Amharic shows morphological differences, at least for part of the lexicon. In contrast to common nouns whose plural is formed with the suffix *-očč*, adjectives “can form their plural by reduplication of a consonant with or without the insertion of the vowel *a*: *addis* > *adaddis* ‘new/PL’, *təlləq* > *təlləlləq* ‘big/PL’” (Meyer 2011: 1190).

b. In Ugaritic, syntax is a relevant criteria: Some nominal forms only appear in attributive position after a noun: *ħrb mlħt* ‘good sabre’ (lit. sabre good) (Cohen 1988e: 62).

c. In Arabic, most adjectives share a good number of templates with nouns. However, adjectives of colour and physical deformities have a dedicated template, ʔa-CCaC- : *ʔa-ħmar-* ‘red’, *ʔa-ʕwar-* ‘one-eyed’, as well as the so-called ‘elative’ forms that mark comparative and superlative of adjectives, differentiating number and gender: M ʔaCCaC- (*ʔakbar-*), F CuCCa- (*kubra-*), M.PL ʔaCaʔCiC- (*ʔaka:bir-*), F.PL CuCCaja:t (*kubraja:t-*) ‘bigger, biggest’, from *kabi:r-* ‘big’.

d. MSA have a series of dedicated adjectival templates. In Mehri, the most common ones are C(a)Ci:C and Ci:CaC. The active and passive participles also function as adjectives (as in many Semitic languages and Egyptian). Adjectives can be derived from nouns with the template CVCC (Watson 2012: 104).

e. Most Semitic languages also have a dedicated suffix, traditionally called *nisba*, (see §27.2.3), to derive adjectives from ethnic and place names, names of substance, and a few other semantic domains. This device tends to extend into modern varieties. The suffix is *-ijj* in Arabic, *-i-* or *-aj*, in Mehri: *mahr-aj* ‘relating to Mahra as a clan or an area’, *xarf* ‘monsoon period’, *xarf-i-* ‘relating to/from the monsoon period’ (Watson 2012: 55, 104).

f. Some Semitic languages have developed different, but functionally, limited strategies. The Neo-Aramaic variety of Ma’lula in Syria, for instance, reanalyzed the absence of a former definite article to an adjective marker in predicative function (Cohen 1988f: 97).

27.4. Cushitic

Most Cushitic languages are spoken in the Horn of Africa (Ethiopia, Eritrea, Somalia, Djibouti), and a few outliers are found in Eastern Sudan (Beja) and in the African Great Lakes region (Tanzania, Kenya: South Cushitic, e.g. Iraqw, Alagwa). The internal classification of Cushitic is still debated (for a recent overview see Mous 2012: 347).

Since Cushitic languages are only recently attested, the focus will be less on historical aspects of word classes than that of the previous sections.

If vocalic alternation in the stem as a non-concatenative morphological device is highly marginal or inexistent in the vast majority of the Cushitic languages (with the exception of Beja, and more marginally Somali and Afar-Saho), the structural consonantal root is often still visible in many of the languages for both nouns and verbs. Unlike Semitic, biconsonantal verbal roots predominate triconsonantal roots in many languages such as Sidamo (69.9% vs 20.3%) or Afar (53.4% vs 35.6%), but it is the reverse in a few others such as Beja (39.3% vs 52.8%), or the proportion is balanced between the two as in Kemantney, a language of the Agaw branch (Cohen 1988g: 256).

All Cushitic languages make a clear morphological distinction between nouns and verbs, be it concatenative or not. The existence of an adjective category is not always attested or straightforward, and may fall within the nominal or verbal domain.

27.4.1 Verbs

a. Verbs are characterized by their morphological make-up in all Cushitic languages, which show a variety of paradigms. In spite of the differences, person marking is remarkably stable across the family, as Table 6 shows.

Table 6: Personal indices in Cushitic languages

		SG	PL
Prefixes			
	1	(ʔ-)/∅	n-
	2	t-	t-...-Vn
	3m	j-/∅	j-/∅-...-Vn
	3f	t-	
Suffixes			
	1	-(ʔ-)/-∅-	-n-
	2	-t-	-t-...-Vn

	3	-(j-)/-Ø-	-(j-)/-Ø-...-Vn
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(from Cohen 1988g: 257)

b. In all languages, the basic verbal inflection is marked by several sets of suffixes, which agglutinate, or more rarely fuse, person, TAM, gender, and number distinctions. For some languages (e.g. Beja, Afar), these constructions can be partly traced back to light verb constructions with a ‘be’ or ‘say’ verb conjugated with prefixes (Cohen 1973) (see Table 7).

Table 7: Comparison of paradigm of *di* ‘say’ and verb class 2 inflectional morphemes in Beja

	‘say’ PFV	V2 IPFV
1SG	<i>a-ni</i>	<i>-ani</i>
2SG.M	<i>ti-ni-ja</i>	<i>-tnija</i>
2SG.F	<i>ti-ni:</i>	<i>-tini:</i>
3SG.M	<i>i-ni</i>	<i>-i:ni</i>
3SG.F	<i>ti-ni</i>	<i>-tini</i>
1PL	<i>ni-di</i>	<i>-nej/-naj</i>
2PL	<i>ti-di:-na</i>	<i>-te:n(a)</i>
3PL	<i>e:-n(a)</i>	<i>-e:n(a)</i>

(From Vanhove 2020: 666)

A few languages also preserved an ancient verb class whose basic aspectual distinction is marked by prefixes both in the perfective and imperfective. This class represents the majority (57%) in Beja (Vanhove 2017: 66), over one third in Afar-Saho, but only five verbs in Southern Agaw and Somali (Cohen 1988g: 256).

c. Non-concatenative morphology with vocalic alternation for TAM is limited to a handful of languages. In Somali, ablaut in the stem is restricted to aspectual oppositions for the few prefixed verbs (*ja-qa:n* ‘he knows’ vs *ji-qi:n* ‘he knew’). In Afar, ablaut only occurs on the inflectional morpheme (*ab-te* ‘you/she did’ vs *ab-ta:* ‘you/she do(es)’). In Beja, change of vowel length in the stem is the rule for the prefix verb class (*a-dif* ‘I went’, vs *an-di:f* ‘I go’, where the *-n-* element goes back to the root *n* ‘say’).

d. Many languages have proclitic elements on the verb that usually mark a pragmatic value of focus:

Oromo

(36) ammo: inni: hiji: hin=hoj-at-e
 but 3SG.NOM work FOC=work-MID-3SG.M.PAST
 ‘But he did work!’ (Stroemer 1995: 73)

e. East-Cushitic languages show reduced paradigms in dependent and relative clauses, often without a person index.

f. All Cushitic languages also have a converb category, more or less finite depending on the language (Azeb and Dimmendaal 2006). For instance, in Kambaata, converbs still “have a reduced number of aspect[s] (...) and person values” (Treis 2012: 219), while in Beja, the four converbs used in deranked subordinate clauses are strictly finite. Only the manner converb shows gender agreement, marked by a nominal morpheme (Vanhove 2016: 94).

Converbs sometimes have been reused to form new paradigms. That is the case for the Beja manner converb, which, together with the nominal copula and indefinite articles, has become a finite verb form marking the perfect aspect (Vanhove 2016). Compare (37) with a deranked clause and (38) with the perfect in an interrogative utterance.

Table 8: Common case marker in Cushitic

	Beja	Agaw	Afar	Somali	Oromo	Sidamo
Focused subject			-i	-i	-i/-y	-i/(-u)
Genitive	-i	-i/-u	-i/-ti	-ti	-ti	-u/-i

(from Cohen 1988g: 266)

b. A gender distinction between feminine and masculine exists in all Cushitic languages, sometimes just as traces, by means of tone (Somali), stress (Afar), and, more often, affixes or clitics (e.g. Afar, Beja, Kambaata, Somali, Xamtanga). Gender is not necessarily marked on the noun itself, and may surface only (or also) as agreement markers on the predicate or modifier, as in Alagwa where gender is a morphological agreement phenomenon on the head noun within an NP or on the predicate (Mous 2016:102).

There is a debate between specialists of Cushitic (Mous 2012: 364ff), who consider number as a gender feature on the basis of the agreement system on verbs, and typologists (Corbett 1991: 210) who consider that this is a marginal feature better explained in terms of syncretism. This echoes the agreement system with numerals in Semitic from three onwards where the numeral bears the feminine marker with masculine nouns but not with feminine ones. For a historical explanation of the phenomena see Cuny & Feghali (1924).

While masculine is usually covert (Dhaasanac and Arbore are exceptions), feminine is overtly expressed with a *t* marker in most Cushitic languages, sometimes only as a trace, as in Xamtanga (Darmon 2017: 66), or in Dhaasanac where feminine is often synchronically expressed with a final vowel *-i*, and masculine with *-u* (Tosco 2001: 71). In Kambaata *t* is generalized to almost all nouns as a suffix (Treis 2008: 126): *am-á-t-* ‘mother’, *hix-í-t-* ‘grass’. In other languages, feminine only surfaces under specific morphosyntactic conditions, e.g. as article clitics in Beja: *de:=t* ‘a mother’, *to:=ndi* ‘the mother (acc.)’ *hamo:=t* ‘a hair’, *t=hami* ‘the hair’, and on demonstratives. The category of gender is dying out in endangered Dahalo (Tosco 1991: 20). For a number of Cushitic languages (east and south), plural is analysed as one of a three-term gender system, in addition to feminine and masculine (for a discussion see Mous 2008), e.g. in Alagwa (Mous 2016: 44-45).

c. Number on nouns is marked in several ways. Various suffixes are found, some shared by two languages or more, e.g. *-a* in Beja and Afar, *-o:ta* in Sidamo and Oromo. Gemination of the final root consonant is quite common (with various additional vowels or suffixes) as attested in Alagwa, Afar, Saho, Somali, Xamtanga, but rarely in Sidamo, and unattested in e.g. Beja. Ablaut in the stem is more marginal and concerns a limited number of nouns in Beja (*me:k*, ‘donkey’, pl. *mak*), Afar or Xamtanga, the latter also using consonantal alternations (*gizih* ‘dog’, pl. *gis’ih*). In the plural of some languages, e.g. Afar and Xamtanga, the final vowel of a noun which ends in a vowel is deleted.

Beja is particular in also having a nominal non-concatenative system, similar, but not identical, to that of Arabic (Vanhove 2012: 321-323; 2017: 24-27; 2020).

27.4.3 Adjectives

The status and morphological make-up of adjectives vary a lot from one language to the next and, in some of them, in particular East-Cushitic languages (Banti 1986), their existence is even disputed. In fact, property concepts are often related to either the verbal or nominal category; Afar, with its dedicated verbal paradigm (in addition to a few primary adjectives) is a good example of the former case.

a. Once again, Beja is unusual in having dedicated non-concatenative templates for adjective formation, precisely eight, two of which are shared with nouns: *dawil* ‘close’ < *diwil* ‘to be close’. Beja has the suffix *-i*, also found in Egyptian and Semitic.

b. In Dahalo (Tosco 1991: 18), nouns are marked only for number, whereas adjectives are marked for number and gender; in Somali (Af Tunni, Tosco 1997: 49) adjectives are derived from nouns via the suffix *-san*: *geesi* ‘hero’ *geesi-san* ‘heroic’. In Bayso, “[a]n adjective may contain up to three distinct elements: an associative particle, an adjectival stem, and a gender suffix.” (Hayward 1979: 113). Sidaama (Kawachi 2007: 134) only has seven underived adjectives, but has many adjectives derived from verbs or nouns by means of suffixes (*-ado*, *-allo*, *-aššo*, *-aaleessa* for verbs, *-iweelo*, *-ččo*, *-aame* for nouns). Similarly, Xamtanga has only three primary adjectives (i.e. morphologically different from nouns, and not relativized verbs), but property-denoting lexemes mostly behave as relativized verbs, or as nouns (Darmon 2015: 40-41). On the other hand, languages such as Saho have no adjective category but use stative verbs instead (Banti and Vergari 2005: 106).

27.5. Conclusion

In this overview, we have discussed the most salient properties of the three major word classes: nouns, verbs and adjectives, in three branches of Afroasiatic, Egyptian, Semitic and Cushitic. They can be summarized as follows:

- There is a distinction between nouns and verbs in all three branches.
- However, in the long term grammaticalization processes show that verbal systems are often replaced on the basis of nominal constructions.
- The adjective category is less easily defined and characterized and, depending on the family and the language, is more (but not exclusively) akin to nouns (Semitic), or verbs (Cushitic), or to both nouns and verbs (Egyptian).
- Non-concatenative morphology is pervasive in most Semitic languages, less so in Egyptian, and only limited to a handful of languages in Cushitic.

Abbreviations

AA Afroasiatic; ACC accusative; ACT active; ADJ adjective; ANT anterior; AOR aorist; ART article; AUX auxiliary; COORD coordination; COP copula; CVB.MNR manner converb; DEF definite; F feminine; FOC focus marker; IMP imperative; INDET indeterminate state (Akkadian); INDF indefinite; IPFV imperfective; M masculine; MID middle; MOD modal; MSA Modern South-Arabian; NEG.EX negative existential; NMLZ nominalisation; NOM nominative; PAST past; PFV perfective; PL plural; PLAC pluractional; PRED predicate; PTCP participle; RECP reciprocal; RESULT resultative; SG singular, V2 verb class 2.

References

Azeb Amha, and Gerrit Dimmendaal (2006). ‘Converbs in an African Perspective’, in Felix K. Ameka, Alan Dench and Nicholas Evans (eds.), *Catching Language. The Standing Challenge of Grammar Writing*. Berlin, New York: Mouton de Gruyter, 393-440.

Azeb Amha (2012). ‘Omotic’, in Zygmunt Frajzyngier and Erin Shay (eds.), *The Afroasiatic languages*. Cambridge: Cambridge University Press, 423-504.

- Banti, Giorgio (1986). ‘Adjectives’ in East Cushitic’, in Marianne Bechhaus-Gerst and Fritz Serzisko (eds), *Cushitic - Omotic. Papers from the international symposium on Cushitic and Omotic languages. Cologne, January 6-9 1986*. Hambourg: Helmut Buske, 203-259.
- Banti, Giorgio and Moreno Vergari (2005). ‘A Sketch of Saho Grammar’, *Journal of Eritrean Studies* 4(1-2): 100-131.
- Blachère, Régis, and Maurice Gaudet-Demombynes (1975). *Grammaire de l’arabe classique (morphologie et syntaxe)*. Paris: Maisonneuve et Larose.
- Caubet, Dominique (1993). *L’Arabe marocain. Tome I: Phonologie et Morphosyntaxe. Tome 2: Syntaxe et Catégories Grammaticales, Textes*. Leuven, Paris: Peeters.
- Cohen, David (1973). ‘La mutation aspective-temporelle dans quelques langues couchitiques et le système verbal chamito-sémitique’, in Jacqueline M.C. Thomas and Lucien Bernot (eds), *Langues et techniques, nature et société. Vol. 1 Approche linguistique*. Paris: Klincksieck, 57-63.
- Cohen, David (1984). *La phrase nominale et l’évolution du système verbal en sémitique. Etude de syntaxe historique*. Leuven, Paris: Peeters.
- Cohen, David (ed.) (1988a). *Les langues dans le monde ancien et moderne: Langues chamito-sémitiques*. Paris: Editions du CNRS.
- Cohen, David (1988b). ‘Introduction’, in David Cohen (ed.), *Les langues dans le monde ancien et moderne: Langues chamito-sémitiques*. Paris: Editions du CNRS, 4-8.
- Cohen, David (1988c). ‘Chamito-sémitique’, in David Cohen (ed.), *Les langues dans le monde ancien et moderne: Langues chamito-sémitiques*. Paris: Editions du CNRS, 9-30.
- Cohen, David (1988d). ‘Sémitique orientale: Akkadien’, in David Cohen (ed.), *Les langues dans le monde ancien et moderne: Langues chamito-sémitiques*. Paris: Editions du CNRS, 40-55.
- Cohen, David (1988e). ‘L’ougaritique’, in David Cohen (ed.), *Les langues dans le monde ancien et moderne: Langues chamito-sémitiques*. Paris: Editions du CNRS, 58-67.
- Cohen, David (1988f). ‘Araméen’, in David Cohen (ed.), *Les langues dans le monde ancien et moderne: Langues chamito-sémitiques*. Paris: Editions du CNRS, 84-104.
- Cohen, David (1988g). ‘Couchitique-Omotique’, in David Cohen (ed.), *Les langues dans le monde ancien et moderne: Langues chamito-sémitiques*. Paris: Editions du CNRS, 243-269.
- Collier, Mark (1992). ‘Predication and the circumstantial $s\dot{d}m(=f)/s\dot{d}m.n(=f)$ ’, *Lingua Aegyptia* 2: 17-65.
- Corbett, Greville (1991). *Gender*. Cambridge: Cambridge University Press.
- Cuny, Albert and Michel Féghali (1924). *Du genre grammatical en sémitique*. Paris: Geuthner.
- Darmon, Chloé (2017). *A morphosyntactic description of Xamtanga. An Agaw (Central Cushitic) language of the northern Ethiopian highlands*. PhD dissertation, Université Lumière Lyon 2 and Leiden University.

- Diakonoff, Igor M. (1988). *Afrasian languages*. Moscow: Nauka.
- SIL International (2020). *Ethnologue*. (Available online at <https://www.ethnologue.com>, Accessed on 2020-11-10.)
- Hetzron, Robert (1980). 'The limits of Cushitic', *Sprache und Geschichte in Afrika* 2: 7-126.
- Galand, Lionel (2010). *Regards sur le berbère*. Milano: Centro Studi Camito-Semitici.
- Hammarström, Harald, Robert Forkel, Martin Haspelmath, and Sebastian Bank (2020). *Glottolog* 4.3. Jena: Max Planck Institute for the Science of Human History. <https://doi.org/10.5281/zenodo.4061162> (Available online at <http://glottolog.org>, Accessed on 2020-11-10.)
- Gragg, Gene and Robert Hoberman (2012). 'Semitic', in Zygmunt Frajzyngier and Erin Shay (eds.), *The Afroasiatic languages*. Cambridge: Cambridge University Press, 145-235.
- Güldemann, Tom (2018). 'Historical linguistics and genealogical language classification in Africa', in Tom Güldemann (ed.), *African Languages and Linguistics*, 58-444. Berlin: DeGruyter Mouton.
- Hayward, Richard (1979). 'Bayso revisited: Some preliminary linguistic observations – II', *Bulletin of the School of Oriental and African Studies* 42-1: 101-132.
- Hess, Jean-Jacques (1897). 'Demotica', *Zeitschrift für Ägyptische Sprache* 35: 144-149.
- Johnson, Janet (2017). 'Compound Nouns, Especially Abstracts, in Demotic', in Richard Jasnow and Ghislaine Widmer (eds), *Illuminating Osiris: Egyptological Studies in honor of Mark Smith*. Atlanta: Lockwood Press, 163-172.
- Kapeliuk, Olga (1988). 'Amharique', in David Cohen (ed.), *Les langues dans le monde ancien et moderne: Langues chamito-sémitiques*. Paris: Editions du CNRS, 146-159.
- Kawachi, Kazuhiro (2007). *A grammar of Sidaama (Sidamo), a Cushitic language of Ethiopia*. PhD thesis, University at Buffalo.
- Kießling, Roland (2000). 'Some salient features of Southern Cushitic (Common West Rift)', *Lingua Posnaniensis* 42: 69-89.
- Lamberti, Marcello (1991). 'Cushitic and its classification', *Anthropos* 86/4-6: 552-561.
- Lewis, Ioan M. (1958). 'The Gadabuursi Somali Script', *Bulletin of the School of Oriental and African Studies* 21-1/3: 134-156.
- Loprieno, Antonio (1995). *Ancient Egyptian. A linguistic introduction*. Cambridge: Cambridge University Press.
- Meyer, Ronny (2011). 'Amharic', in Stefan Weninger (ed.) in collaboration with Geoffrey Khan, Michael P. Streck, Janet C. E. Watson, *The Semitic Languages: An International Handbook*. Berlin, Boston: De Gruyter Mouton, 1178–1212.
- Mous, Maarten (2008). 'Number as an exponent of gender in Cushitic', in Zygmunt Frajzyngier and Erin Shay (eds), *Interaction of Morphology and Syntax: Case studies in Afroasiatic*. Amsterdam: John Benjamins, 137-160.

- Mous, Maarten (2012). ‘Cushitic’, in Zygmunt Frajzyngier and Erin Shay (eds.), *The Afroasiatic languages*. Cambridge: Cambridge University Press, 342-422.
- Mous, Maarten (2016). *Alagwa. A South Cushitic language of Tanzania*. Cologne: Rüdiger Köppe.
- Oréal, Elsa (2014). ‘Noun Phrase Syntax and Definiteness Marking: A new explanation for the morphology of Earlier Egyptian participles’, in Etan Grossman, Stéphane Polis, Andreas Stauder and Jean Winand (eds), *On Forms and Functions: Studies in Ancient Egyptian Grammar*. Hambourg: Widmaier, 173-200.
- Oréal, Elsa (2017). ‘Nominalizations as a source for verbal morphology. Grammaticalization paths of modality and information structure in Earlier Egyptian’, *Lingua Aegyptia* 25: 1-33.
- Oréal, Elsa. (forth). ‘The negative existential cycle in Ancient Egyptian’, in Ljuba Veselinova and Arja Hamari (eds), *The Negative Existential Cycle from a Historical-Comparative Perspective*. Berlin: Language Science Press.
- Polotsky, Hans Jacob (1944). *Etudes de syntaxe copte*. Le Caire: Publications de la Société d'Archéologie Copte.
- Owens, Jonathan (1985). *A grammar of Harar Oromo (Northeastern Ethiopia)*. Hamburg: Helmut Buske.
- Rigby, C. P. (1877). ‘Mr. J. M. Hildebrandt on his travels in East Africa’, *Proceedings of the Royal Geographical Society of London* 22-6: 446-53.
- Roth, Arlette (1975). *Le verbe dans le parler arabe de Kormakiti (Chypre)*. Paris: Geuthner.
- Satzinger, Helmut and Ariel Shisha-Halevy (1999). ‘The snark is dead’, *Lingua Aegyptia* 6: 167-176.
- Schneider-Blum, Gertrud (2007). *A grammar of Alaaba*. Cologne: Rüdiger Köppe.
- Selz, Gebhard J., Orly Goldwasser, and Colette Grinevald (2017). ‘The question of Sumerian determinatives. Inventory, classifier analysis, and comparison to Egyptian classifiers from the linguistic perspective of noun classification’, *Lingua Aegyptia* 25: 281-344.
- Stroemer, Harry (1995). *A grammar of Boraana Oromo (Kenya)*. Cologne: Rüdiger Köppe.
- Theil, Rolf (2012). ‘Omotic’, in Lutz Edzard (ed.), *Semitic and Afroasiatic: Challenges and Opportunities*. Wiesbaden: Otto Harrassowitz.
- Tosco, Mauro (1991). *A Grammatical Sketch of Dahalo. Including texts and a glossary*. Hamburg: Helmut Buske.
- Tosco, Mauro (1997). *Af Tunni. Grammar, texts, and glossary of a Southern Somali dialect*. Cologne: Rüdiger Köppe.
- Tosco, Mauro (2001). *The Dhaasanac language*. Cologne: Rüdiger Köppe.

- Tosco, Mauro (2003). 'Cushitic and Omotic overview', in Bender et al. (dir.) *Afrasian: Selected comparative-historical linguistic studies in memory of Igor M. Diakonoff*. Munich: LINCOM, 87-92.
- Treis, Yvonne (2012). 'Categorial hybrids in Kambaata', *Journal of African Languages and Linguistics* 33(2): 215-254.
- Vanhove, Martine (1993). *La langue maltaise. Etudes syntaxiques d'un dialecte arabe périphérique*. Wiesbaden: Harrassowitz.
- Vanhove, Martine (2012). 'Roots and patterns in Beja (Cushitic): The issue of language contact', in Martine Vanhove, Thomas Stolz, Aina Urdze and Hitomi Otsuka (eds), *Morphologies in contact*. Berlin: Akademie Verlag, 311-326.
- Vanhove, Martine (2016). 'Refinitization of the Manner converb in Beja (Cushitic)', in Claudine Chamoreau and Zarina Estrada Fernández (eds), *Finiteness and Nominalization*. Amsterdam, Philadelphia: John Benjamins, 323-344.
- Vanhove, Martine (2017). *Le bedja*. Leuven, Paris: Peeters.
- Vanhove, Martine (2020). 'Grammaticalization in Cushitic, with special reference to Beja', in Andrej Malchukov and Walter Bisang (eds), *Handbook on Grammaticalization Scenarios: Cross-linguistic variation and universal tendencies*, vol. 2. New-York: De Gruyter, 659-694.
- Veselinova, Ljuba (2014). 'The Negative Existential Cycle Revisited', *Linguistics* 52/6: 1327-1369.
- Vernus, Pascal (1997). *Les parties du discours en Moyen Egyptien*. Genève: Société d'Égyptologie.
- Watson, Janet C. E. (2012). *The Structure of Mehri*. Wiesbaden: Harrassowitz.
- Werning, Daniel (2008). 'Aspect vs. relative tense, and the typological classification of the Ancient Egyptian *sdm.n=f*', *Lingua Aegyptia* 16: 261-292.
- Winand, Jean (2007). 'Les formes verbales nominalisées en égyptien ancien', *Faits de langue* 30: 69-82.