

Recent developments in Semitic and Afroasiatic linguistics

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1. Why is a broader Afroasiatic perspective useful for the study of Semitic

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1 Introductory remarks: internal classification

Even though the topic of this introductory chapter is not genealogical sub-grouping *per se*, it may be useful to briefly consider both the inner structure of Semitic, which, at least from a synchronic perspective, is by now more or less uncontroversial, and the wider structure of the Afroasiatic¹ macro-family, whose inner structure continues to be under discussion. Leaving aside the question of a Semitic *Urheimat*, which is still highly controversial, one has suggested models based on shared innovations or isoglosses such as the one on the following page. Faber (1997: 6), taking up and developing proposals *inter alia* by Hetzron (1976), Goldenberg (1977), and Huehnergard (1990), provides a model based on the following list of basic isoglosses:

- East Semitic is characterized by the development of an adjectival ending *-ūt* (pl. m.) and by the dative suffixes *-kum* and *-šum*;
- West Semitic is characterized by the suffix conjugation denoting past tense (as opposed to the Akkadian stative) and a prohibitive negator *ʾal*;
- “Central Semitic” is characterized by a series of pharyngealized consonants, a prefix conjugation without gemination of the second root consonant and the leveling of prefix vowels in this conjugation, the generalization of a *-t-* suffix (as opposed to *-k-*) in the suffix conjugation, and the development of a compound negative marker **bal*; the Northwest Semitic part of Central Semitic (as being distinct from Arabic) is characterized by the change of word-initial *w* to *y* (except for the conjunction *w-*) and a doubly marked plural (internal and external); further internal isoglosses apply;
- South Semitic is characterized by the generalization of a *-k-* suffix (as opposed to *-t-* above) in the suffix conjugation and by the generalization of (*ʾ*)*al* as a verbal negator; Eastern South Semitic (Modern South Arabian), as opposed to

1 As Newman (1984: 164) correctly and unequivocally states, “[the term] ‘Hamito-Semitic’ must be firmly rejected because it keeps alive the term ‘Hamitic’, with all of its linguistically inaccurate and culturally racist connotations”. Cf. also Hayward 2000: 84.

Western South Semitic (Old South Arabian and Ethio-Semitic) features a prefixed definite article C(a), with C being one of the gutturals ʾ, ḥ, or ḫ.

Table 1: A Semitic model based on shared innovations (Faber 1997)

East Semitic	
Akkadian	
Eblaite	
West Semitic	
Central Semitic	
Arabic	
Northwest Semitic	
Ugaritic	
Canaanite: Hebrew, Phoenician, Moabite, Ammonite, El-Amarna	
Aramaic	
Deir Alla	
South Semitic	
Eastern	
Soqotri	
Mehri, Ḥarsūsi, Jibbāli	
Western	
Old South Arabian	
Ethiopian Semitic	
North Ethiopic: Gəʿəz, Tigré, Tigrinya	
Southern Ethiopic	
Transverse Southern Ethiopic	
Amharic, Argobba	
Harari, East Gurage (Silte, Wolane, Ulbaraq, Inneqor, Zway)	
Outer South Ethiopic	
<i>n</i> group: Gafat, Soddo, Goggot	
<i>tt</i> group	
Muher	
West Gurage	
Mäsqän	
Central/Peripheral	
Central: Ezha, Chaha, Gura	
Peripheral: Gyeto, Ennemor, Endegen	

As regards the grouping of the Afroasiatic branches, the following suggestions have been made, among others, here in chronological order (Table 2):²

2 The entry “Afroasiatic languages” (http://en.wikipedia.org/wiki/Afroasiatic_languages) provides a concise overview. For an overview of the older *Forschungsgeschichte* of Afroasiatic cf. Sasse 1981a and Hayward 2000.

Table 2: Suggested subgrouping models of Afroasiatic

Greenberg (1963)	Newman (1980)	Fleming (after 1981)	Ehret (1995)
Semitic	Berber-Chadic	Omotic	Omotic
Egyptian	Egypto-Semitic	Erythraean:	Cushitic
Berber	Cushitic	Cushitic	Chadic
Cushitic	(Omotic excluded)	Ongota	North-Afroasiatic:
Western Cushitic		Non-Ethiopian:	Egyptian
(= Omotic)		Chadic	Berber
Chadic		Berber	Semitic
		Egyptian	
		Semitic	
		Beja	
Orel/Stolbova (1995)	Diakonoff (1996)	Bender (1997)	Militarev (2000)
Berber-Semitic	East-West Afrasian:	Omotic	North Afrasian:
Chadic-Egyptian	Berber	Chadic	African North Afrasian:
Omotic	Cushitic	Macro-Cushitic:	Chado-Berber
Beja	Semitic	Berber	Egyptian
Agaw	North-South Afrasian:	Cushitic	Semitic
Sidamic	Chadic	Semitic	South Afrasian:
East Lowlands	Egyptian		Omotic
Rift	(Omotic excluded)		Cushitic

We shall not be concerned here with matters of internal reconstruction. In connection with the wider Afroasiatic family, the following quotation by Loprieno (1986: 188f.) continues to be instructive:

“[E]ine vergleichende Grammatik der hamitosemitischen Sprachen steht beim heutigen Forschungsstand auch im Sinne einer algebraischen Rekonstruktion jenseits des wissenschaftlich Erreichbaren. Unsere Vergleiche werden deshalb auf das traditionelle “historische” Modell der diachronischen Sprachwissenschaft [...] verzichten müssen, und an seiner Stelle die “typologische” Betrachtungsweise [...] weiter ausbauen, wobei die Überlagerungen nicht unbedingt auf ein angenommenes gemeinsames Afroasiatisch zurückgehen, sondern das Afroasiatische als verwirklichte Größe darstellen. Das Afroasiatische wird also nie eine “rekonstruierbare Sprache” sein, sondern lediglich eine für die Zwecke einer bestimmten Untersuchung “rekonstruierte Summe” historisch belegter Berührungsmerkmale, abgesehen von deren Herkunft, die [...] “genetisch”, “sprachförderativ”, “raumlinguistisch”, bzw. “allogenetisch” interpretiert werden kann. [...] Auch das Ergebnis allogenetischer Kontakte zwischen den afroasiatischen Sprachen muß aber als Struktur des Afroasiatischen betrachtet werden, genauso wie das Produkt genetischer Verwandtschaft: Das Afroasiatische kann nur eine abstrakte Größe linguistischer Merkmale und kein einheitliches System sprachlicher Realitäten darstellen.”

“In view of the present state of research, a comparative grammar of the Hamito-Semitic languages goes beyond what is scientifically attainable, even in the sense of an algebraic reconstruction. Our comparisons will therefore have to renounce the traditional “historical” model of diachronic linguistics, and instead will extend the “typological” approach. Here the overlappings need not necessarily go back to a posited common Afro-Asiatic, but will rather represent Afro-Asiatic as a realized construct. Thus Afroasiatic will never be a “reconstructible” language”, but only the “reconstructed sum” of historically attested points of [linguistic] juncture independent of their origin, and carried out for the sake of a particular investigation; this sum may be interpreted in terms of “genetic relationship”, “Sprachbund”, “areal linguistics”, or “allogenic relationship”. [...] The results of “allogenic contacts” between the Afro-Asiatic languages will also have to be considered as [belonging to the] structure of “Afro-Asiatic”; just as much as are the results of genetic relationship: Afro-Asiatic can only be considered an abstract construct of linguistic features and not a unified system of linguistic realities.”

Again, while it is important in principle to heed Hans-Jürgen Sasse’s (1981a) advice not to pursue comparative Afroasiatic linguistics from a “Semiticist” perspective, we will focus here on problems from a Semiticist’s point of view. No deeper understanding of certain features of Ethio-Semitic is possible without some insight into Cushitic (and possibly even Omotic). Likewise, the investigation of Maghrebi Arabic phonology can profit a great deal from a basic knowledge of Berber (cf. Elmedlaoui 1998). Modern Arabic dialectology also comprises varieties in the Chadian area, illustrating the need to include Chadic in such a project. Finally, a basic knowledge of ancient Egyptian is useful for investigating issues like root structure or complications of tense and aspect in Semitic and wider Afroasiatic. Other inner-Afroasiatic connections such as the Egyptian-Chadic one are, of course, important as well, but our point of departure here is always the Semitic branch. We shall start now with an overview of some relevant topics in Semitic linguistics, where a comparative perspective is highly warranted. In no case will we attempt to “reconstruct” a given feature to an assumed common Afroasiatic origin. Rather, we will take the existence of parallel features to such features in non-Semitic branches of Afroasiatic as supporting evidence for the explanation of the phenomenon in question.

2 Phonology

2.1 Segmental features of phoneme inventories

Even though they are not restricted to the Afroasiatic area (cf. Ladefoged & Maddieson 1996), “emphatics”, i.e. a number of coronal and velar obstruents with secondary glottalized articulation count as typical for Afroasiatic at large.

Some of those can be arranged in “triads” together with plain voiceless and voiced stops (t, d, t' and k, g, k') and even affricates (\check{c}, j, \check{c}'). In the coronal series, voiced implosive d' or post-alveolar/retroflex d occur in both Cushitic and Chadic (cf. the contributions by Appleyard and Jungrathmayr in this volume). However, such “triads” do by no means constitute a pattern (or conceptual “Procrustes bed”) into which whole consonantal inventories can or should be placed, or in which normatively postulated phonological “gaps” can or should be filled. This holds both for Semitic in particular and for Afroasiatic at large. It is unreasonable to argue on the one hand that if a triad is not fulfilled one must speak of a phonological gap, and argue on the other hand that if a specific set of consonants exceeds a given triad, one or more of the respective consonants must be said to stand “hors système” (in the words of André Martinet), especially as phonological “triads” are not typical at all in a universal perspective (cf. also Steiner 1977 and Huehnergard 2003 for discussion of this issue).

2.2 Cushitic substratum in the phonology of Ethio-Semitic

The phonological inventory of modern Ethio-Semitic is another case in point. Leslau (1945) lists, among others, the following phonological features in Ethio-Semitic as being due to Cushitic substratum (Table 3):

Table 3: Cushitic phonological substratum in Ethio-Semitic

- 1) the series of labiovelars k^w, g^w, q^w , and x^w ;
- 2) the palatalized consonants $\check{c}, \check{g}, \check{s}, \check{z}, \check{c}', \check{n}, y$, corresponding to t, d, s, z, t, n, l ;
- 3) the glottalized consonants s', t', k', p' , and \check{c}' , even though this may also be the “original” pronunciation of the “emphatic” consonants;
- 4) the post-vocalic spirantization of non-geminated k and k' (q) in Tigrinya.

Here we have a clear case where a comparative Afroasiatic perspective is indispensable to account for the richness of the modern Ethio-Semitic phonological inventory. Specifically, the comparative perspective may help to decide on the “original” pronunciation of the emphatics, i.e. velarized or glottalized, as well as on the status of secondary articulation (labialization and palatalization).

2.3 Co-occurrence restrictions within the stem and beyond

As already Joseph Greenberg (1950) had pointed out, cooccurrence restrictions largely rule out more than one guttural in a given Arabic or Hebrew root, disregarding reduplicated quadrilateral roots and onomatopoeic root formations.

More precisely, Greenberg (1950: 178) had set up a classification hierarchy with respect to co-occurrence restrictions as follows (Table 4):

Table 4: C-classification according to Greenberg (1950)

- (a) "back" (velar, pharyngeal, uvular): ʔ, h, ḥ, q, x (ḫ), g (ḡ), k, g
- (b) "liquid": r, l, n
- (c) "labial": p, b, m
- (d) "front" (except for labials) or "coronal" (except for liquids),
i.e. anterior alveolar obstruents: d, š, ś, s, z, ṣ, t, d, t, ḫ, ḏ, z

In formal phonology, the so-called Obligatory Contour Principle (OCP) has often been invoked as a technical rationale for such co-occurrence restrictions, which disallow homorganic adjacent elements within a given morphological structure. Well-known examples include "Grassmann's Law" for Indo-European, which prohibits two aspirated stops within one stem, and "Geers' Law" for Akkadian, which forbids two "emphatic" consonants within one root. In addition, McCarthy (1991: 66–69) has shown that out of 2703 trilateral roots in Wehr's dictionary and out of 1057 trilateral roots in the Hebrew Bible, only very few roots (one-digit numbers), if any, feature more than one guttural in either adjacent or non-adjacent position.

The colliding elements need not necessarily be adjacent, i.e. occur within the same morpheme; in Akkadian, for instance, *ma*-prefixes are dissimilated to *na*-, in case the following root contains a labial, in whatever position. Edzard (1992: 155) investigated related examples in Akkadian and Ethio-Semitic, as compared with similar examples in Berber. While the dissimilation process in Semitic appears to be restricted to *m*-prefixes in local and instrumental nouns, in Berber it also applies to agentive *m*-prefixes (Table 5):

Table 5: Dissimilation in nouns with *m*-prefixes (Edzard 1992)

Akkadian	<i>ma-škan-u(m)</i>	'deposit'	Amharic	<i>mä-qdäs</i>	'holy place'
	<i>ma-nzal-tu(m)</i>	'drainage'		<i>mä-lhəq</i>	'anchor'
	<i>ma-šqaltu(m)</i>	'payment' vs.		<i>ma-čed</i>	'sickle' vs.
	<i>na-rkab-tu(m)</i>	'chariot'		<i>wä-nfät</i>	'sieve'
	<i>na-špar-tu(m)</i>	'letter'		<i>wä-ṭmäd</i>	'trap'
	<i>na-slam-u(m)</i>	'peace treaty'		<i>wä-nbär</i>	'chair'

Berber	<i>amə-gər</i>	‘thief
	<i>amə-kəs</i>	‘shepherd’ vs.
	<i>amə-fərd</i>	‘s.o. who plucks’
	<i>amə-wəš</i>	‘aide, helper’

Alderete (1997) analyzes dissimilation phenomena in a wider Afroasiatic perspective, including the Cushitic language Oromo and Tashlhiyt Berber, among other languages. As a result of a co-occurrence restriction in the latter variety of Berber, which rules out more than one labial in a word, derivational *m*-prefixes are dissimilated (viz. delabialized) in front of a root already containing a labial (/b, f, m/). In a more formal perspective, we are looking at two competing constraints, illustrated in Table 6:

Table 6: Constraint ranking for dissimilation before a stem containing a labial

***PL/LAB²_{Stem}**: Ban any stem with two segments with independent Place specification [labial];

IDENT[Place]: Corresponding segments in input and output agree in [space] specification.

Table 7, using the reflexive Berber form *nkaddab* ‘considered a liar’, captures the intrinsic hierarchy of these two constraints, i.e. the circumstance that the constraint ***PL/LAB²_{Stem}** dominates the constraint **IDENT[Place]**:

Table 7: Constraint Tableau for delabialization as a result of dissimilation

Input: m-kaddab	*PL/LAB ² _{Stem}	IDENT[Place]
a. $\text{[n-kaddab]}_{\text{Stem}}$		*
b. $\text{[m-kaddab]}_{\text{Stem}}$	* !	

3 Morphology

3.1 Root-pattern system

Another typical feature of Semitic is a templatic root- and pattern morphology characterized by discontinuous root morphemes. Most other branches of Afroasiatic support a representation as the following (cf. the contributions in Shimon 2003) (Table 8):

Table 8: Representation of a root-pattern morphological system (Arabic)

k		t		b	<i>kataba</i>	‘he wrote’
					<i>yaktubu</i>	‘he writes’
C	V	C	V	C	(‘u)ktub	‘write!’
					<i>kātib</i>	‘writing, writer’
			a		<i>kitāb</i>	‘book’
					<i>maktab</i>	‘office’ (place of writing)

Alternatively, one can try to describe Semitic morphology in terms of ablaut/apophony, as was attempted once by Gene Schramm (Schramm 1991: 1405). Different diatheses/*binyanim*, for instance, could then be derived as in the following scheme (Table 9):

Table 9: Representation of diatheses in terms of ablaut/apophony

root/base	binyan I	binyan II	binyan IV	binyan V
<i>kbur</i>	<i>yakbur</i>	<i>yukabbir</i>	<i>yukbir</i>	<i>yatakabbar</i>

Schramm’s motivation at the time was that a term like *lašon* ‘tongue’ cannot be derived from a root $\sqrt{lšn}$; the verb *hilštn* ‘he slandered’ is thus to be considered denominative, semantically not being a typical *hif‘il* form. Moreover, some short words, notably prepositions, cannot be derived from roots at all. Whereas Hebrew ‘*al* ‘on’ can be related to a root $\sqrt{‘ly}$, the establishing of such a relation fails for ‘*el* ‘to’. Therefore, it is preferable to have one “philosophically” consistent system (cf. also Ussishkin 1999).

However, beyond such idiosyncratic examples, there is plenty of evidence in Semitic and wider Afroasiatic for the principle of a consonantal root, modified by template affixes. Typologically, this kind of morphology is not even restricted to Afroasiatic, but also occurs, for instance, in the American Indian language Yawelmani. In this language, however, the root also contain vocalic elements. Consider the following example (cf. Bat-El 2003: 47) (Table 10):

Table 10: Template affixes in Yawelmani (Bat-El 2003)

root	modified root with template affixes	
	CVC(C)-(')inay (gerundial)	CVCVV(C)-'aa (durative)
<i>diiyl</i>	‘guard’ <i>diiyl-inay</i>	<i>diiil-’aa-n</i>
’ <i>ilk</i>	‘sing’ ’ <i>ilk-inay</i>	’ <i>iliik-’aa-n</i>
<i>hiwiit</i>	‘walk’ <i>hiwt-inay</i>	<i>hiwiit-’aa-n</i>

Table 13: “Key consonants” in Afroasiatic (Diakonoff)

“dangerous” animals		“tame” animals	
<i>ʾarna-b</i>	‘hare’	<i>ʾimm-ar</i>	‘lamb’
<i>dub-b</i>	‘bear’	<i>baq-ar</i>	‘cattle’
<i>diʾ-b</i>	‘wolf’	<i>ḥim-ār</i>	‘donkey’
<i>dub(ā)-b</i>	‘stinging fly’	<i>kar-r</i>	‘lamb’
<i>kal-b</i>	‘dog’	<i>ʿay-r</i>	‘ass-foal’
<i>lab-b</i>	‘lion’	<i>ṭaw-r</i>	‘ox’
<i>ʿaqra-b</i>	‘scorpion’	<i>ʾayy-al</i>	‘deer’
<i>ṭaʿla-b</i>	‘jackal’	<i>jam-al</i>	‘camel’

While the discussion within Semitic linguistics allows for arguments in favor of both a more “original” bi-radical or tri-radical system, the Afroasiatic scenario at large does not favor the assumed anteriority of the tri-radical system at all (cf., e.g., Jungraithmayr 1970; cf. also the data in Ehret 1989, 1995, and 2004, as well as in Militarev & Kogan 2000 and 2005). Within the Semitic system, while there exist arguments for a tendency towards “tri-radicalism”, it has also to be kept in mind that weak roots cannot automatically be integrated into this system. It was the considerable merit of the native Arab grammarians to have demonstrated that a hypothetical form **qawama* can only be considered an “underlying representation” of the surface from *qāma*, but not a historical predecessor of the latter (cf. Versteegh 1987: 156 and Edzard 1998: 151, with reference to the Arab grammarian Ibn Ğinnī).

3.3 Pronouns and affixes in the Semitic diatheses/*binyanim*/stems

There have been proposals to align the affixes found in Semitic diatheses with homophonous elements in personal and demonstrative pronouns (for a wider Afroasiatic perspective, cf. Lieberman 1986). Again, in order to determine whether these commonalities are accidental or systematic, a broader Afroasiatic perspective is warranted. It is commonly accepted that the Semitic causative prefixes are logical extensions of the personal pronouns of the third person, all featuring either a sibilant or a guttural (*h* or *ʾ*) (cf., e.g., Lipiński 2001: 398). One either finds the same consonants as onsets of the causative prefixes and the personal pronouns (e.g., *š-* in Akkadian or *h-* in Hebrew) or different consonants (e.g., *h-* in the Ugaritic personal pronoun and *š-* in the Ugaritic causative prefix, or *h-* in the Arabic personal pronoun and *ʾ-* in the Arabic causative prefix) (cf., e.g., Edzard 1998: 116–119).

In order to get an overview of the affixes beyond the situation in the causative, consider first the following Akkadian, Hebrew, Arabic, and Ethio-Semitic examples (Table 14):

Table 14: Affixes in Semitic diatheses

(a) *t-*, *n-*, and *š-* affixes in Akkadian diatheses (*binyanim*)

stem	stative (3SG.M)	durative (3SG.M)	perfect (3SG.M)	preterite (3SG.M)
G	$C_1aC_2iC_3-$	$iC_1aC_2C_2vC_3$	$iC_1-t-aC_2vC_3$	$iC_1C_2vC_3$
G-t	$C_1i-t-C_2uC_3-$	$iC_1-t-aC_2C_2vC_3$	$iC_1-t-a-t-C_2vC_3$	$iC_1-t-aC_2vC_3$
N	$na-C_1C_2uC_3-$	$i-C_1-C_1aC_2C_2vC_3$	$i-t-t-aC_1C_2vC_3$	$i-C_1-C_1aC_2iC_3$
Š	$šu-C_1C_2uC_3-$	$u-š-aC_1C_2aC_3$	$u-š-t-aC_1C_2iC_3$	$u-š-aC_1C_2iC_3$
Š-t pass.	$šu-t-aC_1C_2uC_3-$	$u-š-t-aC_1C_2aC_3$	$u-š-t-a-t-aC_1C_2iC_3$	$u-š-t-aC_1C_2iC_3$

(b) *t-*, *n-*, *h-*, and *š-* affixes in Hebrew diatheses (*binyanim*)

stem	perfect (3SG.M)	imperfect (3SG.M)
G	$C_1āC_2vC_3$	$yiC_1C_2v̄C_3$
D	$C_1iC_2C_2ēC_3$	$yəC_1aC_2C_2ēC_3$
t-D	$hi-t-C_1aC_2C_2ēC_3$	$yi-t-C_1aC_2C_2ēC_3$
N	$ni-C_1C_2aC_3$	$yi-C_1-C_1āC_2ēC_3$
N-t-D	$ni-t-C_1aC_2C_2ēC_3$	$yi-t-C_1aC_2C_2ēC_3$ (Mishnaic)
H	$hi-C_1C_2īC_3-$	$yaC_1C_2īC_3$
Š-t	$hi-š-t-ahwā$	$yi-š-t-ahwe$ (isolated form)

(c) *t-*, *n-*, *ʾ-*, and *s-* affixes in Arabic diatheses (*binyanim*)

stem	perfect (3SG.M)	imperfect (3SG.M)
G	$C_1aC_2vC_3a$	$yaC_1C_2vC_3u$
G-t	$iC_1-t-aC_2aC_3a$	$ya-C_1-t-aC_2iC_3u$
D	$C_1aC_2C_2aC_3a$	$yuC_1aC_2C_2iC_3u$
t-D	$ta-C_1aC_2C_2aC_3a$	$ya-ta-C_1aC_2C_2aC_3u$
N	$in-C_1aC_2aC_3a$	$ya-n-C_1aC_2iC_3u$
ʾ	$ʾa-C_1C_2aC_3a$	$yuC_1C_2iC_3u$
s-t	$i-s-t-aC_1C_2aC_3a$	$ya-s-t-aC_1C_2iC_3u$
L ³	$C_1āC_2aC_3a$	$yuC_1āC_2iC_3u$
t-L	$ta-C_1āC_2aC_3a$	$ya-ta-C_1āC_2aC_3u$

3 "L" symbolizes the lengthening of the vowel following the first root consonant.

(d) *t*-, ²-, and *s*-affixes in Gə‘əz diatheses (*binyanim*)

stem	perfect (3SG.M)	imperfect (3SG.M)	subjunctive (3SG.M)
G	$C_1\ddot{a}C_2\ddot{a}C_3\ddot{a}$	$y\partial C_1\ddot{a}C_2C_2\partial C_3$	$y\partial C_1C_2\partial C_3$
t-G	$t\ddot{a}-C_1C_2\ddot{a}C_3\ddot{a}$	$y\partial-t-C_1\ddot{a}C_2C_2\ddot{a}C_3$	$y\partial-t-C_1\ddot{a}C_2\ddot{a}C_3$
’	$\ddot{a}-C_1C_2\ddot{a}C_3\ddot{a}$	$yaC_1\ddot{a}C_2C_2\partial C_3$	$yaC_1C_2\partial C_3$
s-t-G	$\ddot{a}-s-t-\ddot{a}C_1\ddot{a}C_2\ddot{a}C_3\ddot{a}$	$ya-s-t-\ddot{a}C_1\ddot{a}C_2C_2\partial C_3$	$ya-s-t-\ddot{a}C_1C_2\partial C_3$
D	$C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$y\partial C_1eC_2C_2\partial C_3$	$y\partial C_1\ddot{a}C_2C_2\partial C_3$
t-D	$t\ddot{a}-C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$y\partial tC_1eC_2C_2\ddot{a}C_3$	$y\partial tC_1\ddot{a}C_2C_2\ddot{a}C_3$
’-D	$\ddot{a}-C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$yaC_1eC_2C_2\ddot{a}C_3$	$yaC_1\ddot{a}C_2C_2\partial C_3$
s-t-D	$\ddot{a}-s-t-\ddot{a}C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$ya-s-t-\ddot{a}C_1eC_2C_2\partial C_3$	$ya-s-t-\ddot{a}C_1\ddot{a}C_2C_2\partial C_3$
L ⁴	$C_1aC_2\ddot{a}C_3\ddot{a}$	$y\partial C_1aC_2C_2\partial C_3$	$y\partial C_1aC_2\partial C_3$
t-L	$t\ddot{a}-C_1aC_2\ddot{a}C_3\ddot{a}$	$y\partial tC_1aC_2C_2\ddot{a}C_3$	$y\partial tC_1aC_2\ddot{a}C_3$
’-L	$\ddot{a}-C_1aC_2\ddot{a}C_3\ddot{a}$	$yaC_1aC_2C_2\partial C_3$	$yaC_1aC_2\partial C_3$
s-t-L	$\ddot{a}-s-t-\ddot{a}C_1aC_2\ddot{a}C_3\ddot{a}$	$ya-s-t-\ddot{a}C_1aC_2C_2\partial C_3$	$ya-s-t-\ddot{a}C_1aC_2\partial C_3$

(e) *t*-, ²-, and *s*-affixes in Amharic diatheses (*binyanim*)

stem	perfect (3SG.M)	imperfect (3SG.M)	jussive (3SG.M)
G (A)	$C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$y\partial C_1\ddot{a}C_2C_3$	$y\partial C_1C_2\ddot{a}C_3$
G (B)	$C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$y\partial C_1\ddot{a}C_2C_2\partial C_3$	$y\partial C_1\ddot{a}C_2C_2\partial C_3$
G (C)	$C_1aC_2C_2\ddot{a}C_3\ddot{a}$	$y\partial C_1aC_2C_2\partial C_3$	$y\partial C_1aC_2C_3$
tä- (A)	$t\ddot{a}-C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$y\partial-C_1-C_1\ddot{a}C_2C_2\ddot{a}C_3$	$y\partial-C_1-C_1\ddot{a}C_2\ddot{a}C_3$
tä- (B)	$t\ddot{a}-C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$y\partial-C_1-C_1\ddot{a}C_2C_2\ddot{a}C_3$	$y\partial-C_1-C_1\ddot{a}C_2\ddot{a}C_3$
tä- (C)	$t\ddot{a}-C_1aC_2C_2\ddot{a}C_3\ddot{a}$	$y\partial-C_1-C_1aC_2C_2\ddot{a}C_3$	$y\partial-C_1-C_1aC_2\ddot{a}C_3$
a- (A)	$a-C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$yaC_1\ddot{a}C_2C_3$	$yaC_1C_2\partial C_3$
a- (B)	$a-C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$yaC_1\ddot{a}C_2C_2\partial C_3$	$yaC_1\ddot{a}C_2C_2\partial C_3$
a- (C)	$a-C_1aC_2C_2\ddot{a}C_3\ddot{a}$	$yaC_1aC_2C_2\partial C_3$	$yaC_1aC_2C_3$
a-s- (A)	$a-s-C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$ya-s-C_1\ddot{a}C_2C_2\partial C_3$	$ya-s-C_1\ddot{a}C_2C_2\partial C_3$
a-s- (B)	$a-s-C_1\ddot{a}C_2C_2\ddot{a}C_3\ddot{a}$	$ya-s-C_1\ddot{a}C_2C_2\partial C_3$	$ya-s-C_1\ddot{a}C_2C_2\partial C_3$
a-s- (C)	$a-s-C_1aC_2C_2\ddot{a}C_3\ddot{a}$	$ya-s-C_1aC_2C_2\partial C_3$	$ya-s-C_1aC_2C_3$

4 Again, “L” stands as a symbol for a (historically) lengthened first vowel.

*a-tä- (C)	$a-C_1-C_1aC_2C_2äC_3ä$	$ya-C_1-C_1aC_2C_2\partial C_3$	$ya-C_1-C_1aC_2C_3$
a-s-tä	$a-s-tä-C_1aC_2C_2äC_3ä$	$ya-s-tä-C_1aC_2C_2\partial C_3$	$ya-s-tä-C_1aC_2C_3$
	(rare, not productive, mostly I gutt.)		
t-ä-s-tä	$tä-s-t-äC_2aC_2C_2äC_3ä$		(rare)
G-red.	$C_1äC_2aC_2C_2äC_3ä$	$y\partial C_1äC_2aC_2C_2\partial C_3$	$y\partial C_1äC_2aC_2C_3$
tä-red.	$tä-C_1äC_2aC_2C_2äC_3ä$	$y\partial-C_1-C_1äC_2aC_2C_2\partial C_3$	$y\partial-C_1-C_1äC_2aC_2\partial C_3$
a-red.	$a-C_1äC_2aC_2C_2äC_3ä$	$yaC_1äC_2aC_2C_2\partial C_3$	$yaC_1äC_2aC_2C_3$
a-s-red.	$a-s-C_1äC_2aC_2C_2äC_3ä$	$ya-s-C_1äC_2aC_2C_2\partial C_3$	$ya-s-C_1äC_2aC_2C_3$
*a-t-red.	$a-C_1-C_1äC_2aC_2C_2äC_3ä$	$ya-C_1-C_1äC_2aC_2C_2\partial C_3$	$ya-C_1-C_1äC_2aC_2C_3$
tän- (C)	$tän-C_1aC_2C_2äC_3$	$y\partial n-C_1aC_2C_2\partial C_3$	$y\partial n-C_1aC_2\partial C_3$
an- (C)	$an-C_1aC_2C_2\partial C_3$	$yan-C_1aC_2C_2\partial C_3$	$yan-C_1aC_2\partial C_3$
	(rare, not productive, mostly C or quadriradical)		

At this point, it is useful to provide an overview of both the independent and dependent pronouns in Afroasiatic (cf. also Satzinger 2004). In Tables 15 and 16, only corresponding elements are listed:⁵

Table 15: Correspondences in Afroasiatic independent personal pronouns
(cf. Sasse 1981a: 144)

	Semitic	Egyptian	Beja	Agaw	East-Cush.	Berber	Chadic
sg. 1C	* <i>ʾanā(ku)</i>	<i>ʾink</i>	<i>ani</i>	* <i>ʾanə</i>	* <i>ʾani</i>	<i>nəkki</i>	
2M	* <i>ʾanta</i>			* <i>ntə</i>	* <i>ʾati</i>		
2F	* <i>ʾanti</i>			* <i>ntə</i>	* <i>ʾati</i>		
3M	* <i>šū</i>				* <i>ʾusuu</i>		
3F	* <i>šī</i>				* <i>ʾišii</i>		
pl. 1C	* <i>naḥna / u</i>	<i>ʾinn</i>	<i>hanan</i>	* <i>ʾanän</i>	* <i>na / i / u (?)</i>	<i>nəkunnə</i>	
2M	* <i>ʾantum</i>			* <i>ntän</i>	* <i>ʾatin</i>		
2F	* <i>ʾantin(n)a</i>			* <i>ntän</i>	* <i>ʾatin</i>		
3M	* <i>šumu</i>				* <i>ʾišoo</i>		
3F	* <i>šin(n)a</i>				* <i>ʾišoo</i>		

5 For details, cf. the contributions on the individual branches of Afroasiatic.

Table 16: Correspondences in Afroasiatic dependent personal pronouns
(cf. Sasse 1981a: 144)

		Semitic	Egyptian	Beja	Agaw	East-Cush.	Berber	Chadic
SG	1C	*ī/*ya	-j	-∅	*yi	*yi/u	-i	*ni
	2M	*ku/a	-k (< *ka/u)	-ka	*ki	*ku	kai, -k	*ka
	2F	*kī	-t (< *ki)	-ki	*ki	*ki	kəm	*ki
	3M	*šū	-f	-s		*(u)su	-s/-t	*si
	3F	*šā	-ś	-s		*(i)ši	-s/-t	*ta
PL	1C	*na/i/u	-n	-n		*na/i/u	-na, -nəḡ	*mu
	2M	*kumu	-tn (< *kin)	-kna		*kunu	kunnə	*ku
	2F	*kin(n)a	-tn (< *kin)	-kna		*kunu	kunəmti	*ku
	3M	*šumu	-śn	-sna		*sunu (?)	-sən/tən	*su
	3F	*šin(n)a	-śn	-sna		*sunu (?)	-sənt/tənt	*su

Turning back to the connection between the pronouns of the third person singular and the causative affixes, the sibilant thus proves to be firmly established in Afroasiatic as a whole, at least in the dependent series of pronouns. The Afroasiatic causative affixes confirm this scenario (Table 17):

Table 17: Causative affixes in Afroasiatic (cf. Lipiński 2001: 395)

	G		causative	
Egyptian	‘nḥ	‘to live’	ś- ‘nḥ	‘to cause to live’
Berber	bəddəl	‘to change’	ss-bəddəl	‘to cause to change’
Cushitic	imm-	‘to give’	imm-is-	‘to cause to give’

Lieberman (1986: 619) takes the following position, as regards the connection between pronouns, demonstratives, and *binyan*-forming elements:

“In Semitic, then, and apparently in Afroasiatic as a whole, we should reconstruct a stage in which there were three different demonstrative elements. The first of these is the /š/ ~ /h/ demonstrative which probably meant ‘the one visible to the speaker or in his linguistic focus’. This demonstrative formed the basis of the causative. Second was the /n/ demonstrative, meaning ‘the one not visible to the speaker and not in his linguistic focus’, which was behind the *n*-stem which expresses ‘actorless action’. Third was the /t/ demonstrative, with a meaning ‘the aforementioned’ (whether visible to the speaker or not), which was behind the reflexive.”

Lieberman’s results can be represented as follows (Table 18):

Table 18: Reconstructed formative elements in the diatheses of Afroasiatic (Lieberman 1986)

*-s-/-š-:	causative (“to cause s.o. to do s.th.”)
*-t-:	reflexive or medium (“to do s.th. for o.s.”)
*-m-:	reciprocatve (“to do s.th. to each other”), passive
*-n-:	passive/intransitive

Lieberman (1986) has also shown that even more complex combinations of these pronominal elements are found in various diatheses of other branches of Afroasiatic.

3.4 The D-stem and gemination of C₂ in the imperfect

A broader Afroasiatic perspective can be useful for determining whether or not a pattern in a given diathesis in Semitic is inherited from common Afroasiatic or an innovation in Semitic. Jungraithmayr (2003) adduces some comparative evidence from the East-central Chadic languages Mubi/Mónjúl, Mokilko, and Migama, where gemination of the second radical or the third radical can be observed. Especially gemination of the second radical can express plurality, imperfectivity, and cursivity. In Mubi, CVC and CVVC verbs may make use of gemination (as opposed to qualitative or quantitative ablaut) for the sake of aspect differentiation. Here is an illustration (cf. Jungraithmayr 2003: 320) (Table 19):

Table 19: C₂-gemination in the Chadic imperfective (Jungraithmayr 2003)

type	verbal noun	perfective	imperfective	gloss
CVC	<i>ríw</i>	<i>rěw</i>	<i>ríwwà</i>	‘to cook soup’
CVC	<i>nyúl</i>	<i>nyól</i>	<i>nyúllà</i>	‘to extract’
CVC	<i>kíl</i>	<i>kêl</i>	<i>kíllà</i>	‘to pour into’
CVC	<i>fúy</i>	<i>fôy</i>	<i>fúyyà</i>	‘to carry on shoulders’
CVVC	<i>gùidì</i>	<i>gět</i>	<i>gittà</i>	‘to descend’
CVVC	<i>húidí</i>	<i>hét</i>	<i>hittà</i>	‘to descend’
CVVC	<i>rúbí</i>	<i>róp</i>	<i>ríffà</i>	‘to cook’
CVVC	<i>rúubí</i>	<i>róp</i>	<i>rúffà</i>	‘to receive’

As this chart illustrates, the gemination of the second root consonant in the Grundstamm of both Akkadian and Ethio-Semitic is maybe the most famous example of the necessity of a wider Afroasiatic perspective for the understand-

ing of Semitic morphology – cf. the contributions by Otto Rössler (1950), Joseph Greenberg (1952), Andrzej Zaborski (2005), among others. What is important here is to keep in mind the difference between the gemination in the G-diathesis and the D-diathesis. Interestingly, Greenberg and others have argued that the continuous aspect of the imperfect/durative may well account for the gemination of C_2 in the relevant forms, as the imperfect can be said to have aspectual similarities with the D-diathesis. Note also that the gemination is absent in the preterite/jussive/subjunctive paradigm, a circumstance that makes sense in terms of the involved aspect. Here come selected forms within paradigms from Semitic, Cushitic, and Berber (Table 20):

Table 20: Geminated C_2 in Akkadian and Ethio-Semitic

G-stem	“perfect”/ “stative” (3SG.M)	“imperfect” / “durative” (3SG.M)	“preterite” / “jussive” “subjunctive” (3SG.M)
Cl. Arabic	$C_1aC_2vC_3a$	$yaC_1C_2vC_3u$	$yaC_1C_2vC_3$
Hebrew	$C_1\bar{a}C_2vC_3$	$yiC_1C_2\bar{v}C_3$	$(way-)yiC_1C_2vC_3$
Akkadian	$C_1aC_2iC_3$	$iC_1aC_2C_2vC_3$	$iC_1C_2vC_3$
Gə‘əz	$C_1aC_2aC_3a$	$yəC_1aC_2C_2əC_3$	$yəC_1C_2əC_3$
Cushitic (Beja)	—	$(yi-)danbīl$	$yi-dbil$ ‘collect’
Berber	—	$i-lākkəm$	$i-lkəm$ ‘follow’
D-stem	“perfect”/ “stative” (3SG.M)	“imperfect” / “durative” (3SG.M)	“preterite” / “jussive” “subjunctive”
Cl. Arabic	$C_1aC_2C_2aC_3a$	$yuC_1aC_2C_2iC_3u$	$yuC_1aC_2C_2iC_3$
Hebrew	$C_1iC_2C_2\bar{e}C_3$	$yəC_1aC_2C_2\bar{e}C_3$	$(way-)yəC_1aC_2C_2\bar{e}C_3$
Akkadian	$C_1uC_2C_2uC_3$	$uC_1aC_2C_2aC_3$	$uC_1aC_2C_2iC_3$
Gə‘əz	$C_1aC_2C_2aC_3a$	$yəC_1eC_2C_2əC_3$	$yəC_1aC_2C_2əC_3$

Rössler (1977) – unconvincingly and in bad faith (because simply attacking the Tiberian Masoretes, who had been faithfully transmitting an oral tradition) – has attempted to project this phenomenon on ancient Hebrew roots I- n (e.g., $\sqrt{n-š-r}$ ‘watch’), where one finds two different forms:

- $yīššōr$ (unmarked: with regressive assimilation) vs.
- $yīnšōr$ (marked: without regressive assimilation)

Rössler erroneously argued that $yīnšōr$ reflected a “wrong” vocalization by the Tiberian Masoretes and should in reality be read as $*yānašser$ or the like (where

no regressive assimilation could take place), in analogy with the continuous imperfect in Akkadian and Gəʿəz, which shows the same type of gemination. Even though some of the *yinšōr* forms (e.g., Dt 33:9, Ps 61:8) may show traces of the “imperfective” (continuous-habitual) semantics of the corresponding forms in Akkadian and Gəʿəz, as opposed to the more “perfective” instances of *yisšōr* (e.g., Dt 32:10, Ps 12:8) it has to be pointed out that almost all of the *yinšōr* forms, but none of the *yisšōr* forms, occur in pause, a position that often allows for internally unreduced forms. All in all, this *mala fide* suggestion by Rössler definitely constitutes a dark chapter in the history of Semitic linguistics.⁶

3.5 The *t*-infix and the *n*-prefix in Semitic verbal paradigm

It has also been argued that the *t*-infix in the Akkadian perfect paradigm *iptaras* ($iC_1-t-aC_2aC_3$) not only may have parallels in other Semitic languages like Arabic, but also in Berber and Egyptian (cf. Diem 1982 and Zaborski 2004: 170). Likewise, there are parallels to the *n*-prefix in other branches of Afroasiatic, notably in the Egyptian *sdm-n.f* forms (cf. Zaborski 2005: 22). Zaborski (2005: 21f.) refers to both $/iC_1-t-aC_2aC_3/$ and $/i-n-C_1aC_2aC_3/$ forms as “periphrastic” constructions. For the *t*-infix, he assumes an early auxiliary function “to become”, which evolved in a passive > perfect semantic chain in Semitic. According to Zaborski, the original function can still be seen in certain Kabyle forms (Table 21):

Table 21: Function of the *t*-infix in Kabyle (Zaborski 2005)

<i>itatt</i>	‘her forgets’	vs.	<i>yətt</i>	‘he forgot’
<i>yəthərr</i>	‘he restrains’	vs.	<i>iḥərra</i>	‘he restrained’
<i>yətwali</i>	‘he looks at’	vs.	<i>iwala</i>	‘he looked at’

3.6 External masculine plural marking by *w* (*ū*)

As Zaborski (1976) has shown, lengthening of a final vowel as a plural marker can also be found in non-Semitic branches of Afroasiatic, notably Egyptian, Berber, and Cushitic (in Chadic, there seems to be less evidence). Here is a survey (Table 22):

6 In this context, Rössler’s former infamous role as an SS-Untersturmführer should not be forgotten. Rössler 1977 is still full of insolent formulations against the Tiberian Masoretes as well as contemporary Jewish colleagues, e.g., p. 44: “Hier sind die Masoreten mit ihrer Vokalisierung [...] einmal ganz schön aufgelaufen, und ihre heutigen Nachtreter (sic!) mit ihnen!”

Table 22: External masculine plural marking by *w* (*ū*)

	singular	plural	gloss
Semitic (Akkadian)	<i>šarru(m)</i>	<i>šarrū</i>	‘king’
Egyptian	<i>sn</i>	<i>snw</i>	‘brother’
Berber	<i>im-i</i>	<i>im-aw-ən</i>	‘mouth’
Cushitic (Sidaama)	<i>anna</i>	<i>annūwa</i>	‘father’
Chadic (Hausa)	<i>zane</i>	<i>zannūwa</i>	‘cloth’

This observation holds for both the verbal and the nominal system (for recent discussion within Semitic, cf. Hasselbach 2007).

3.7 Broken plural (intraflexion)

As Ratcliffe (1998a/b), among others, has demonstrated, the broken plural is not only attested in Arabic, the Modern South Arabian Languages, and Ethio-Semitic, but also in Northwest Semitic (there, in tandem with plural affixes). In a broader Afroasiatic perspective, also Berber features the broken plural (cf., e.g., Idrissi 2000: 112). Here is an overview (Table 23):

Table 23: The broken plural in Arabic, Gə‘əz, and Berber

Arabic			Gə‘əz				
<i>ḥizb</i>	→	<i>ʾaḥzāb</i>	‘party’	<i>ḥezb</i>	→	<i>aḥzāb</i>	‘people’
<i>maṣdar</i>	→	<i>maṣādir</i>	‘origin’	<i>kanfar</i>	→	<i>kanāfer</i>	‘lip’
<i>madrassa</i>	→	<i>madāris</i>	‘school’	<i>mo‘alt</i>	→	<i>maṭwā‘el</i>	‘day’
Berber							
<i>madl</i>	→	<i>i-mudal</i>	‘cheek’				
<i>bayus</i>	→	<i>i-buyas</i>	‘monkey’				
<i>a-mkkartu</i>	→	<i>i-mkkurta</i>	‘young goat’				

3.8 Case-systems: diptotic ergative systems

The investigation of the Semitic case system can likewise profit from a comparative Afroasiatic perspective (cf. Sasse 1981a, and 1984). Not only have there been proposals to the effect that a two-case system in Semitic is not *a priori* less “original” than a three-case system (so Retsö 2006.). One has also wondered about the different functions of what usually is considered to be an “accusative” marker. The situation in Arabic and Ethio-Semitic is especially revealing. Consider first the following Arabic examples (Table 24):

Table 24: Functions of the *-a(n)* ending in Arabic

i. accusative:	<i>ḍaraba zayd-an</i> he.hit Zayd-ACC 'he hit Zayd'
ii. absolute negation:	<i>lā 'ilāh-a 'illā llāhi</i> NEG god-ACC except God 'there is no god except Allah'
iii. vocative in construct:	<i>yā 'ab-ā bakrin</i> VOC father-of.ACC Bakr 'oh 'Abū Bakr'
iv. predicative participle:	<i>ḡā'a qā'il-an</i> he.came saying-ACC 'he came saying'
v. predicate of <i>kāna</i> and its sisters:	<i>kāna malik-an</i> he.was king-ACC 'he was a king'
vi. focalized subject:	<i>'inna zayd-an kabīrun</i> FOC Zayd-ACC big '(indeed,) Zayd is big'

In Amharic, the “accusative” marker *-n* also appears in predicative and adverbial scenarios, in addition to its function as the regular marking of the definite object (cf. Leslau 1985: 189 and 892ff.) (Table 25):

Table 25: Functions of the *-n* suffix in Amharic

i. accusative:	<i>māskot-u-n zəga</i> window-DEF-ACC close.SG.M! 'close the window!'
ii. predicative:	<i>əssu-n b-əhon al-adärg-äw näbbär</i> he-ACC if-I.am NEG-I.do-it was 'if I were him, I wouldn't have done it'
iii. adverbial:	<i>ləḡ-u əḡḡ-e-n yazä-ññ</i> child-DEF hand-my-ACC he.took-me 'the child took me by the hand'
iv. focus:	<i>awnät-wa-n näw</i> truth-her-ACC he.is 'she is right'

Originally, one has argued, Afroasiatic had an ergative subject (“agent”) case associated with an *u*-ending and a predicative/absolute (“non-agent”) case, which also served for marking the object, associated with an *a*-ending. In the East-Cushitic language Borana, for instance, one finds an opposition between a subject case terminating in *-í*, vs. an absolute case terminating in *-a* (which also functions as citation case), e.g., *nam-í* ‘a man’ (subject) vs. *nam-a* ‘man’ (predicate), as in *kunin nam-a* ‘this is a man’ (cf. Sasse 1984: 112).

A comparable functional opposition can be detected in the Berber “state” (case) system, where the “independent form” characterized by an *a*-vowel designates the direct object, the nominal predicate, and a number of adverbial cases, whereas the “dependent form” characterized by an *u*-vowel designates the non-focalized subject, the adnominal genitive, and the complement of prepositions (cf. Sasse 1984: 120f.). Here is an illustration (Table 26):

Table 26: Dependent and independent “state” (case) in Berber

<i>ayiul</i>	<i>iuɣa-t</i>	<i>urgaz</i>
the.donkey.INDEP	he.bought-it	the.man.DEP
‘the man bought <i>the donkey</i> ’		
<i>argaz</i>	<i>iuɣa</i>	<i>ayiul</i>
the.man.INDEP	he.bought	the.donkey.INDEP
‘it was <i>the man</i> who bought the donkey’		

So maybe there are reasons to reconstruct only two cases to early Semitic, instead of three. Akkadian also shows traces of a dative in the pronominal system, which need not be reconstructed to an earlier stage of Semitic.

4 Syntax

4.1 A morpho-syntactic issue: gender polarity

To turn now to issues of syntax: the phenomenon of gender polarity in the counting system of Semitic has been another long-standing puzzle in Semitic linguistics (cf. the overview by Brugnatelli 1982). Therefore, a comparative perspective is useful in this realm of grammar as well.

Gender polarity in Cushitic languages also holds for the opposition in number, singular vs. plural, much like Hebrew *’āḇ* – *’āḇōt* ‘father’ (other examples include *šēm* – *šēmōt* ‘name’) or conversely *’iššā* – *nāšīm* ‘woman’ (other examples include *šānā* – *šānīm* ‘year’ and *millā* – *millīm* ‘word’). Arabic examples (cf., e.g.,

Hetzron 1967: 188) include *dīk* – *dīkāṭ* ‘cock’ (male chicken) and *qitʿa* – *qitaʿ* ‘piece’. Note that these “polar” examples cast light on the “polarity” between the form of a number and the form of a counted noun. Again, a comparative perspective is useful, as amply demonstrated by Lecarme (2002). The corresponding singular-plural pairs in Somali, where nouns systematically take the opposite gender in the plural are (Lecarme 2002: 112) (Table 27):

Table 27: Singular-plural pairs in Somali (Lecarme 2002)

<i>áabbe</i> (-á-ha) (m.)	‘father’	→	<i>aabbayáa</i> (-sha) (f.)	‘fathers’
<i>náag</i> (-ta) (f.)	‘woman’	→	<i>naagó</i> (-á-ha) (m.)	‘women’

Already Hetzron (1967: 190ff.) defended the concept of gender polarity against theories which assign other functions to the feminine markers encountered in such constructions and argue with later analogical processes. Lecarme (2002), however, is critical of the concept of polarity for preponderantly formal reasons.

4.2 Word order in Amharic

Let us also consider a syntactic issue, where a comparative Afroasiatic perspective seems indispensable when it comes to different patterns of pre- and post-specification. Whereas most branches of Afroasiatic feature either a SVO or a VSO order, Ethio-Semitic is characterized by a strong tendency towards SOV, obviously due to Cushitic substratum. The classical works on word order universals by Greenberg, Hawkins, and Vennemann have established clear patterns of morpho-syntactic implications dependent on the different possible positions of subject, verb, and object. In the following, typical syntactic features of Semitic SOV languages (e.g., Amharic) on the one hand and Semitic VSO languages (e.g., Classical Arabic) on the other hand are juxtaposed (Tables 28 and 29). Let us first consider the situation in Amharic (Table 28):

Table 28: Amharic as a “strong” SOV-language (“>>” = implication)

<i>wəšša-w</i>	<i>ləǧ-u-n</i>	<i>näkkäsä</i>
dog-DEF	child-DEF-OBJ	he.bit
‘the dog bit the child’		

Strict SOV languages, like Amharic, typically feature the following morpho-syntactic implications:

- 1) SOV >> postpositions (or circumpositions)
- 2) SOV >> suffixed (post-specifying) definite article and object marker
- 3) SOV >> adjectives, genitives, and relative clauses precede head noun
- 4) SOV >> auxiliary after main verb
- 5) SOV >> standard of comparison precedes adjective

Here are some illustrating examples:

- | | | | | | | |
|-------|---|---------------|---|--------------|----------------|--------------|
| ad 1) | <i>'ə-bet</i> | <i>wəst</i> | <i>bä-mədər</i> | <i>lay</i> | <i>kä-məsa</i> | <i>bäfit</i> |
| | in-house | within | at-earth | on | from-lunch | before |
| | 'in the house' | | 'on earth' | | 'before lunch' | |
| ad 2) | <i>təllaq-u</i> | <i>bet</i> | <i>təllaq-u-n</i> | <i>bet</i> | | |
| | big-DEF | house | big-DEF-OBJ | house | | |
| | 'the big house' (subject) | | 'the big house' (object) | | | |
| ad 3) | <i>təllaq</i> | <i>bet</i> | <i>təllaq-u</i> | <i>bet</i> | | |
| | big | house | big-DEF | house | | |
| | 'a big house' | | 'the big house' | | | |
| | <i>yä-ləğ</i> | <i>bet</i> | <i>yä-ləğ-u</i> | <i>bet</i> | | |
| | of-child | house | of-child-DEF | house | | |
| | 'a child's house' | | 'the house of the child' | | | |
| | <i>yä-mätta</i> | <i>ləğ</i> | <i>yä-mätta-w</i> | <i>ləğ</i> | | |
| | REL-came | child | REL-came-DEF | child | | |
| | 'a child that came' | | 'the child that came' | | | |
| ad 4) | <i>yəsäbr</i> | | <i>yəsäbr-all</i> | | | |
| | he.breaks | | he.breaks-there.is | | | |
| | 'he breaks' (dependent) | | 'he breaks' (independent) | | | |
| | <i>säbro</i> (dependent gerund) | | <i>säbr^w-all</i> (independent "compound" gerund) | | | |
| | breaking.3SG.M | | having.broken.SG.M-there.is | | | |
| | 'breaking, having broken' 'he has broken' | | | | | |
| ad 5) | <i>kä-Täsfaye</i> | <i>räžžim</i> | <i>kä-ss^wa</i> | <i>qonğo</i> | | |
| | from-Täsfaye | tall | from-her | beautiful | | |
| | 'taller than Täsfaye' | | 'more beautiful than she' | | | |

Consider now corresponding examples taken from Classical Arabic (a "strong" VSO language, in which almost always the opposite holds as compared with the SOV language Amharic) (Table 29):

Table 29: Arabic as a “strong” VSO-language (“>>” = implication)

‘*aḍḍa* *l-kalb-u* *l-walad-a*
 he.bit DEF-dog-NOM DEF-child-ACC
 ‘the dog bit the child’

- 1) VSO >> prepositions
- 2) VSO >> prefixed (pre-specifying) definite article
- 3) VSO >> adjectives, genitives, and relative clauses succeed head noun
- 4) VSO >> auxiliary before main verb
- 5) VSO >> standard of comparison after adjective

Again, here are some illustrating examples:

- ad 1) *bi-l-bayt-i* ‘*alā l-’arḍ-i* *qabla l-ḡadā’-i*
 in-DEF-house-GEN on DEF-earth-GEN before DEF-lunch-GEN
 ‘in the house’ ‘on earth’ ‘before lunch’
- ad 2) *al-bayt-u* *l-kabīr-u*
 DEF-house-NOM DEF-big-NOM
 ‘the big house’ (subject)
- ad 3) *bayt-un* *kabīr-un* *al-bayt-u* *l-kabīr-u*
 house-NOM big-NOM DEF-house-NOM DEF-big-NOM
 ‘a big house’ (subject) ‘the big house’ (subject)
- bayt-u* *walad-in* *bayt-u* *l-walad-i*
 house-NOM.CS child-GEN house-NOM-CS DEF-child-GEN
 ‘a child’s house’ ‘the house of the child’
- walad-un* ḡā’*a* *al-walad-u* *lladī ḡā’*a**
 child-NOM he.came DEF-child-NOM REL.M he.came
 ‘a child that came’ ‘the child that came’
- ad 4) *yaksiru* ḡa’*ala* *yaksiru*
 he.breaks he.put he.breaks
 ‘he breaks’ ‘he began to break’
- ad 5) ‘*aṭwal-u* *min Muḥammad-in*
 taller.M-NOM from Muḥammad-GEN
 ‘taller than Muḥammad’
- ’aḥsan-u* *min-hā*
 more.beautiful.M-NOM from-her
 ‘more beautiful than she’

Already Leslau (1945) had demonstrated that the following features in Amharic can clearly be attributed to Cushitic substratum (cf. also Ferguson 1976: 75):

- 1) the existence of postpositions (or circumpositions) instead of prepositions;
- 2) the sentence-final position of the verb (including the copula);
- 3) the position of auxiliary verbs after the main verb;
- 4) the pre-specifying position of the adjective (before the head noun);
- 5) the pre-specifying position of the relative clause;
- 6) the reversed order of the elements in the genitive construction as compared with the typical Semitic annexation.

Kapeliuk (2009a/b) adduces further evidence confirming that Cushitic substratum in Ethio-Semitic syntax is also discernible in the use of the gerund, the far-reaching replacement of adjectives by relative verbal clauses (cf. also Edzard 2001), and the use of synthetic verbal forms. Cf. the contribution by Appleyard on common Ethiopic constructions linking an invariable element with the conjugated verb 'to say', e.g. Bilin (Cushitic) *fuf y-əx^w* 'he blew' ("blowing he said"), comparable to Amharic constructions such as *qučč alä* 'he sat down' ("down he said").

An answer to the question as to why and where the SOV order in Amharic ultimately originated is provided in Vennemann to appear (chapter 8). Vennemann plausibly argues that the SOV order in Amharic can be traced back to Old Nubian (in Sudan) and was transferred to Amharic by transitivity of language contact via Cushitic (cf. also Lipiński 2001: 499f. = § 50.15).

4.3 Verbal syntax and tense and/or aspect and mood semantics (TAM)

One further case in point, where comparative Afroasiatic evidence may be useful, is the consecutive past in Biblical Hebrew, i.e. the /way-yiCCvC/ conjugation, and the consecutive non-past, i.e. the /wə-CāCvC/ conjugation. As clearly evidenced by the weak forms, the consecutive past reflects the shortened prefix conjugation as present in the Akkadian preterite and the Arabic apocopate (not "jussive") in the negative past (*lam + yaf'al*). It has also been suggested that the conjunction *waC-* in the Biblical Hebrew consecutive past may in some way be functionally related to the Middle Egyptian *sḏm-n-f* forms, which in turn were superseded by *ḏw-f ḥr sḏm* constructions in Late Egyptian (cf. Young 1953, Loprieno 1980, and Rendsburg 2007: 99). The consecutive non-past, in turn, reflects the non-past use of the suffix conjugation in the Akkadian stative or in the

Arabic “gnomic” perfect, e.g. ‘azza wa-ğalla ‘he (God) is mighty and lofty’ (or: “may God be ...”). In principle, one might also think of a sort of reversed analogy (cf. McCarter 2008: 65). Typical examples of the consecutive past and non-past are the following (Table 30):

Table 30: Examples of consecutive Biblical Hebrew verb forms

way-yiqrā(ʾ) ʾēlohīm lā-ʾōr yōm ‘and God called the light day’ (Gen 1:5).
wə-hāyā(h) kə-qārāb-kem ʾel-ham-milḥāmā(h) wə-niggaš hak-kōhēn wə-dibber ʾel-hā-ʾām ‘and it will be when you are about to go into battle, the priest will come forward and will speak to the army’ (Dt 20:2).

In rare cases, the *hē(ʾ)* cohortativum can follow a consecutive past form, e.g., *wan-naḥalm-ā(h)* ‘and we dreamt’ (Gen 41:11). In stylistically poetic context, a /way-yiCCvC/ form can also have non-past reference, e.g., *way-yehšōp̄ yə ʾārōt* ‘and [the voice of God] strips the forests bare’ (Ps 29:9).

5 Lexicon

The benefits of a comparative perspective are also evident in the realm of the lexicon. To remain within Afroasiatic: individual Biblical Hebrew terms are possibly of Egyptian origin, e.g., *šēš* ‘linen’ (*passim*) from Egyptian *šš* ‘linen’ and *tabbā ʾat* ‘sealing ring’ (*passim*) from Egyptian *db* ‘wt’ (cf. McCarter 2008: 79).

There are ubiquitous traces of Cushitic substratum in Ethio-Semitic (cf. Leslau 1945, 1952; Appleyard 1977). Appleyard (1977) identifies Cushitic loans in the following semantic fields:

- 1) “man”, comprising general terms, kinship terms, and parts of the body, e.g., Amharic *aggot* ‘uncle’, cf. Bilin (Central Cushitic) ʾäg;
- 2) “the domestic environment”, comprising agricultural activities and implements, crops, domestic animals, food and its preparation, and the [realm of the] house, e.g., Amharic *doro* ‘chicken’, cf. Saho-Afar (East-Cushitic) *dorho*;
- 3) “the natural environment”, comprising natural phenomena, flora, and fauna, e.g., *däga* ‘highlands’, cf. Bilin (Central Cushitic) *dag* ‘summit, above’;
- 4) “social organization”, comprising law and government, economy, warfare, and religion, e.g., *aṭe* ‘emperor’, cf. Kemant (Central Cushitic) *ašena*;
- 5) “grammatical items”, comprising pronouns, numerals, and particles, e.g., *ši(h)* ‘thousand’, cf. Bilin (Central Cushitic) *šix*.

6 Case study: logical and etymological commonalities between interrogation and negation markers

Let us conclude this overview with a case study embracing several realms of grammar and the lexicon and underlining once more the importance of a comparative Afroasiatic perspective. It has long been noticed that there is considerable overlap in Semitic between interrogative markers and negative elements. Already Reckendorf (1898: 83) had supported the idea to derive negative *mā* in Arabic from an interrogative pronoun. Wehr (1953) also made a case for negation markers emanating from interrogation markers, as did Wagner (1964) and Pennacchietti (1967). Wehr argues that the interrogation marker “what?” was re-analyzed as a negation marker in rhetorical questions which were calling for a negative response. A *cause célèbre* in this context is the interpretation of the particle *mā* in Muḥammad’s dictum *mā ʾaqraʾu*, meaning either ‘what shall I read’ or ‘I do/will not read’. Rubin (2005: 50) argues convincingly that historically the Arabic interrogative pronoun *mā* has been grammaticalized as a negative marker. Hence, one may well argue that the interpretation “I cannot/will not read/recite” does not necessarily differ logically from the interpretation “what shall I read?” In modern terms, the rhetorical statement “what can I do [in this matter]?” is almost coextensive with the statement “I cannot do anything [in this matter]”.

Beyond the ambiguous element *mā*, the element ʾay(y) is attested as an interrogation marker, *inter alia*, both in Arabic ʾayyu ‘which’, notably in ʾayyu šayʾin ‘which’ (and its dialectal variant ʾeš) and in Hebrew ʾē-zē ‘which’, ʾēk ‘how’, and ʾēpō(h) ‘where’. As a negation marker ʾay(y)- occurs, *inter alia*, in the Akkadian vetitive paradigm *ayy-ipur* ‘let him not divide’ and the Ethiopic (Gəʿəz) ʾi-prefix, e.g., ʾi-faqada yəksətā; he [Joseph] did not want to expose her’ (Matth. 1:19). The same morpheme can also be detected in modern Ethio-Semitic, cf., e.g., the *y*-element in Amharic *y-ällä-m* ‘no’ (the negation of *ällä* ‘there is’) or the ʾi-element in Tigre ʾi-təbkay ‘don’t cry!’ (cf. Lipiński 2001: 524). One can also adduce the Hebrew nominal negator ʾī-, e.g., ʾī-nāqī ‘unclean’ (Job 22:30) in this context. According to Lipiński (2001: 364), “[t]here is no doubt that this prohibitive particle is originally identical with the interrogative ʾay”. Already Brockelmann (1908: 500 = § 253) had expressed this opinion: “Hebr. ʾajin [...] ist jedenfalls mit dem arab. ʾajna ‘wo?’ identisch, also aus einer rhetorischen Frage entstanden.” In the second volume of his *Grundriß*, Brockelmann (1913: 182 = § 105) states as well: “Wie im Nominalsatz [...] so wird auch in Verbalsätzen die Negation meist durch ursprüngliche Fragewörter vertreten.”

Again, a wider Afroasiatic perspective is useful in casting light on this issue. Faber (1991) has yet provided the most extensive overview of homonymy between interrogative markers and negation markers in Semitic and wider Afroasiatic. Given the evidence in the non-Semitic branches of Afroasiatic, she argues that the relevant coincidences cannot be treated as an inner-Semitic, let alone inner-Arabic, phenomenon alone. Rather, she presents (at least) two theories (Faber 1991: 420): either one can reconstruct “proto-Afroasiatic” interrogative markers $*\text{'ayn}$ and $*k(n)$ on the one hand and a “proto-Afroasiatic” negation marker $*(m)ba$ on the other hand, this being Faber’s preferred option; alternatively, one can decide to reconstruct a “proto-Afroasiatic” interrogation marker $*mah$ and a “proto-Afroasiatic negation marker $*(m)ba$, without stronger claims about their mutual relationship.

Faber (1991: 422) even suggests that the negation marker \bar{v} may have emerged from the combination of another negative marker and the asseverative particle $la-$, meaning something like “surely not”, and that the emphatic force of this expression was reduced in the course of history to a mere negative marker. More specifically, Faber’s comparative data include the following information (the Semitic branch is excluded in the following) (Table 31):

Table 31: Faber’s (1991) comparative Afroasiatic data (*both INT and NEG*)

<u>morph.</u>	Egyptian		Berber		Chadic		Cushitic		Omotic	
	<u>INT</u>	<u>NEG</u>	<u>INT</u>	<u>NEG</u>	<u>INT</u>	<u>NEG</u>	<u>INT</u>	<u>NEG</u>	<u>INT</u>	<u>NEG</u>
*m	+	+	+	–	+	–	+	+	–	+
* 'ayy	–	–	+	–	–	–	+	+	+	–
* 'ayn	–	+	+	–	+	–	–	+	+	–
*k(V)	+	–	–	–	–	+	+	+	+	+
*ha	–	–	–	–	–	–	+	+	+	–

In contrast to Table 31, the following Table 32 contains elements that are only attested as negation markers in Afroasiatic.

Table 32: Faber’s (1991) comparative Afroasiatic data (*only NEG*)

<u>morph.</u>	Egyptian	Berber	Chadic	Cushitic	Omotic
* $\bar{l}\bar{a}(\text{'})$	–	–	–	+	–
* 'al	–	–	–	–	+
*tV	+	–	+	+	+
*bV	+	+	+	+	+

The basic question to ask is whether these commonalities are only of a superficial phonological nature or of a deeper semantic nature. In logical grammar, both interrogations and negations are simply defined as “modified forms of the affirmative/declarative sentences” and thus form a semantic group. The maybe most intuitive construction in this context is the following. Wehr (1953: 36) argues convincingly that one can hardly, if at all, distinguish interrogation from negation in negated exceptive clauses (Table 33):

Table 33: Interrogation and/or negation in negated exceptive clauses

Q 33:12 *mā wa ‘ada-nā llāhu wa-rasūlu-hū ‘il-lā ġurūran*

‘what have God and his apostle promised us except deception? =

‘God and his apostle have promised us nothing but deception’

Regarding the logical connection between interrogation markers and negation markers, one may also think of Jespersen’s cycle (cf., e.g., Lucas 2007). In colloquial French, for instance, the second element in bracketing negation markers (e.g., *pas*) prevails, while the first element *ne*, the original negation marker is omitted, i.e. one winds up with *je sais pas* (or *chais pas*) instead of *je ne sais pas* ‘I don’t know’. In other words, a grammaticalized element, originally denoting “a thing” or else, is reanalyzed as a negation marker. The same case can be made for simple *-š* in Arabic dialects as remainder of an original periphrastic construction. Note also that seemingly elementary negators such as English *not* or Vulgar Latin *non* derive from *n-a-wiht* and *ne + oenum*, respectively, both meaning ‘not a thing’ (cf. also Vennemann 1993: 335–342).

In sum, we are faced with a complex situation. On the one hand, the logical connection between interrogations markers and negations markers cannot be denied. On the other hand, this connection, even though occasionally attested elsewhere, is far from being universal. One can certainly try to derive the extant interrogative and negation markers diachronically and synchronically from each other, or rather one can try to relate these elements to each other. But one can also point to the fact that “many of the attested Sem[itic] NEG[s] and INT[s] utilize a restricted phonemic inventory /m b l ʾ n k/, variously combined, suggesting that semantically weakened NEG[s] and INT[s] were repeatedly reinforced by combination either with other NEG[s] or with other lexical items” (Faber 1991: 416). In other words, we may be faced with a scenario which I have described in a different context in a polygenetic framework “convergence” and “entropy”, reminiscent of Vittorio Pisani’s “river-delta scenario, where forms emerge out

of a pool of combinatorically possible data (cf. Edzard 1998). We must also allow for the possibility of parallel developments and even coincidental correspondences between interrogation markers and negation markers.

7 Conclusion

In the foregoing examples from the realms of phonology, morphology, and morpho-syntax I hope to have shown to which extent a comparative Afroasiatic perspective can be useful for the elucidation of phenomena that appear to be idiosyncratic or even weird in a mere Semitic perspective. Of course, the question remains: does the adducing of comparative and comparable data from other branches of the macro-family automatically amount to a proper explanation of the phenomena in question? In certain cases I think this holds at least partially true. Robert Hetzron, for instance, has provided sound arguments for the distinction between “polarity” and “(reverse) analogy” through providing comparative Cushitic data. Cushitic featured most prominently in this overview, notably in the form of syntactic and lexical substratum in Ethio-Semitic, but the other branches Egyptian, Berber, and Chadic also played an important role. Due to the controversy about the affiliation of Omotic, I have not taken into consideration any Omotic data here.

Even though comparable data in other branches of the macrofamily do not yet establish a phenomenon as typologically sound in a universal perspective, the comparison with such data may help us to come closer to what may be considered (universal) statistical significance. The “object marking” of the predicate is a good example in this context.

Substantial information and analysis will now come forth in the individual linguistic sketches and text samples compiled by Ruth Kramer (for Egyptian), Mohamed Elmedlaoui (for Berber), David Appleyard and Kjell Magne Yri (for Cushitic), Herrmann Jungraithmayr (for Chadic), as well as Rolf Theil and Bin-yam Sisay Mendisu (for Omotic).

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