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we współpracy
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An Optimality-Theoretic analysis of stress in the Bani Sulaim dialect

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Abstract: Majed Al Solami, *An Optimality-Theoretic analysis of stress in the Bani Sulaim dialect.* The Poznań Society for the Advancement of Arts and Sciences, PL ISSN 0079-4740, pp. 7-24

This study presents an Optimality-Theoretic analysis of stress assignment in a Bedouin Hijazi Arabic dialect. The proposed analysis includes several constraints, among which are NONFIN, which disallows stress word--finally, FBIN, which requires words to be minimally bimoraic, IAMBIC, which requires feet to be right headed, and WSP, which stipulates that heavy syllables are stressed. Importantly, the ranking relations between these constraints solve certain issues found in previous rule-based accounts of the dialect, namely accounting for trochaic stress in disyllabic words and stress in words with final heavy syllables. Trochaic stress in previous studies was seen to result from the interaction between extrametricality and foot binarity requirements, where final syllable extrametricality is revoked only in disyllabic words in favor of satisfying foot bimoraic weight. Words with final stress, on the other hand, were not accounted for in previous studies. The current study shows that Optimality Theory adequately accounts for trochaic stress and words with a final heavy syllable.

Keywords: iambic stress, Bedouin Hijazi, Optimality Theory, foot binarity

1. Introduction

Bedouin Arabic dialects are spoken in parts of the Arabian Peninsula. Several studies examined the linguistic component of these dialects. The focus has been mainly on semantic, syntactic, and morphological features. Phonology has not received much attention unless it was entangled with other fields of linguistics (e.g. Johnstone 1963, 1967a, 1967b; Lehn 1967; Prochazka 1988; Al Solami 2007, 2020; De Jong 2011). Recent years saw a rise in the number of studies that examined the metrical systems of Bedouin dialects. Among these dialects are the dialects spoken in the Hijaz region, to the west of Saudi Arabia, called collectively in the literature as Bedouin Hijazi Arabic (e.g. Il-Hazmy 1975; Al-Mozainy 1981; Al-Mozainy et al. 1985; Al Solami 2007, 2020, 2022).

One of the Bedouin dialects spoken in the Hijaz region is the Bani Sulaim dialect, henceforth BSD. BSD is spoken mostly in Wadi Starah (Starah Valley), located to the north of Jeddah city. Bedouin dialects in the Hijaz region are linguistically different from non-Bedouin (sedentary) dialects within the region. Bedouin dialects have iambic stress, unlike trochaic stress in non-Bedouin varieties, and they also have a number of vowel deletion processes that are absent in non-Bedouin dialects (e.g. Al-Mozainy 1981; Al-Mozainy et al. 1985; Abu-Mansour 1987; Al-Mohanna 1994, 1998; Kabrah 2004; Al Solami 2007, 2020, 2022; Abu-Mansour 2011).

The metrical system of Bedouin dialects is interesting, and it has been examined in several studies (e.g. Al-Mozainy 1981; Oh 1998; Al Solami 2007, 2020). However, none of these studies implemented a satisfactory account of stress patterns in Bedouin Hijazi Arabic within Optimality Theory (OT) framework. A main issue of stress assignment that has not been examined in previous studies is stress assignment in words with a final long vowel such as *sumú*: 'highness' and *hudú*: 'quietness'. Such words were left out and are incompatible with final syllable extrametricality parameter implemented in these studies, as discussed further in sections 4 and 5.

The current study aims to examine the stress system of the Bani Sulaim dialect implementing OT as a framework where universal violable faithfulness and markedness constraints are put in certain order to yield the desired output. OT provides a satisfactory account of stress assignment in BSD that overcomes the problem of words with a final long vowel.

The paper is organized as follows. In section 2 the source of data used in this study is discussed. Section 3 presents stress patterns in BSD. Section 4 gives an overview of previous analyses of stress patterns in BSD to show how rule-based approaches do not account for all stress patterns in BSD. In section 5 the analysis within OT framework is presented. Lastly, section 6 is the conclusion.

2. Data source

The data in this study was based on the speech of four speakers of BSD, two males and two females between the ages of 55 and 71. The data included words of different syllable shapes and morphological structures (see Appendix). The speakers with the least exposure to non-Bedouin dialects in the area were chosen in order to avoid contact-induced changes in Bedouin dialects (e.g. Al-Shehri 1995; Al Solami 2007; Miller et al. 2007; Al-Essa 2009).

3. Stress patterns in BSD

In this section the general patterns of stress in BSD are examined. The purpose of this section is to lay the foundation of the discussion in ensuing sections.

Stress in BSD falls on one of the last three syllables. It is assigned to the final syllable if it is CVVC or CVCC syllable (superheavy syllable), as in (1a), or has a long vowel CV:, as in (1b)[1].

(1) a. Stress final CV:C or CVCC syllables

Final CV:C syllable

[ki.rí:m]	'generous'
[ka.má:l]	'completeness'
[dʒi.má:d]	'non-living thing'
[sa.ná:m]	'camel hump'
[ru.má:d]	'ash'
[til.mí:ð]	'student'
[gi.rí:b]	'close'
[si.lí:m]	'unharmed'
[ri.bí:ʕ]	'spring'
[mi.ká:n]	'place'

Final CVCC syllable

[ki.tábk]	'he enlisted you (mas. sg.)'
[ri.ʒdámk]	'he stoned you (mas. sg.)'
[ħa.básk]	'he held you (mas. sg.)'
[sa:.máħt]	'I/you (masc. sg.) forgave'
[si.míʕt]	'I/you (masc. sg.) heard'
[ti.ʕíbt]	'I/you (masc. sg.) got tired'
[tˁi.fiʃtˁ]	'I/you (masc. sg.) got bored'
[sˁa.námk]	'your (masc. sg.) statue'
[ʁa.námk]	'your (masc. sg.) sheep'
[mak.tábk]	'your (masc. sg.) office'

b. Final CV: syllable

[su.mú:]	'highness'
[hu.dú:]	'quietness'
[mu.da.rá:]	'managers'

In the absence of the syllables in (1), stress falls on heavy CVC or CVV syllables in the penultimate position, as in (2a), and if the penultimate is light then it falls on heavy CVC or CVV syllables in the antepenultimate position, as in (2b).

(2) a. Stress heavy CV: or CVC syllables in the penultimate

[di.ʒá:.ʒah]	'a chicken (fem.)'
[dʒi.má:.ʕah]	'group'

[1] Syllables with geminates also occur in BSD. However, geminates are not discussed in this study.

[ʕa.bá:.jah] ‘gown’
[ʕa.lá:.mah] ‘sign’
[ħa.má:.mah] ‘a pigeon’
[ri.kíb.tin] ‘you (fem. pl.) rode’
[ʃi.ríb.na] ‘we drank’
[ti.ʕíb.na] ‘we got tired’
[tˤi.fíʃ.ti] ‘you (fem. sg.) got bored’

b. Stress heavy CV: or CVC syllables in the antepenultimate
[sá:.fa.rat] ‘she travelled’
[sá:.ʕa.dat] ‘she helped’
[gá:.ba.lat] ‘she met’
[ʕá:.na.dat] ‘she was stubborn’
[lá:.ma.sat] ‘she touched’
[mák.ta.bah] ‘a library’
[máz.ba.lah] ‘garbage’
[mír.ti.ki] ‘reclining’
[mír.ti.ʃi] ‘bribed’

In the absence of words with heavy syllables, stress in trisyllabic words with light syllables falls on the penultimate syllable, as in (3).

(3) Trisyllabic words with light syllables
[ʔa.ká.lat] ‘she ate’
[ʔa.χá.ðu] ‘they (masc.) took’
[ʔu.má.ra] ‘princes’

In disyllabic words stress falls on the penultimate syllable, regardless of its weight, as in (4a). This results in trochaic stress in disyllabic words with light syllables, as in (4b). Note that CVC syllable in BSD does not attract stress word finally and only attracts stress in word medial position, as in (4c).

(4) a.
[mák.tab] ‘an office’
[már.kab] ‘a ride’
[tár.mi] ‘she throws’
[má:.ʃi] ‘walking’
[rá:.kib] ‘on board’
[rá:.kiz] ‘stable’

b.
[sí.miʕ] ‘he heard’
[ʃi.rib] ‘he drank’

[gí.ðˤa] ‘he judged’
[fí.da] ‘sacrifice’

c.
[ʔá.kal] ‘he ate’
[ʔa.kál.ha] ‘he ate it’

To summarize, stress in BSD falls on a word-final syllable if it is CV:C, CVCC or CV:. Otherwise, it falls on a heavy penultimate or antepenultimate of the shape CV: or CVC. In the absence of heavy syllables, stress falls on the penultimate syllable.

4. Stress assignment in BSD within rule-based approach

This section examines how previous studies accounted for stress patterns in BSD within rule-based approaches. The aim is to show that rule-based analysis fails to account for all stress patterns in BSD.

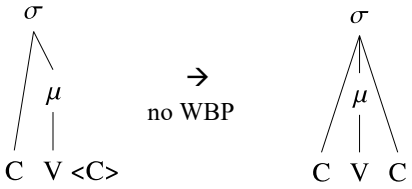
Stress in BSD is influenced by syllable weight and syllable position, and it is assigned to one of the three final syllables, similar to most dialects of Arabic (e.g. McCarthy 1980; Irshied 1985; McCarthy & Prince 1990; Sakarna 1990; Watson 2011; Abu Guba 2018). In BSD, moraic weight is determined by vowel length and coda presence. Monomoraic syllables are open syllables with short vowels, while heavy syllables have a long vowel and or/coda, based on moraic theory (Hyman 1985; McCarthy & Prince 1986; Hayes 1989a, 1989b).

Similar to the majority of Arabic dialects, the moraic weight of CVC syllable in BSD depends on its position in the word. Word medially, CVC syllable is bimoraic, while word finally it is monomoraic. This is reflected in stress assignments in the dialect where a CVC syllable only attracts stress in word medial position, as in (5).

(5) [ki.**sár**.ha] ‘he broke it’
[kí.**sar**] ‘he broke’

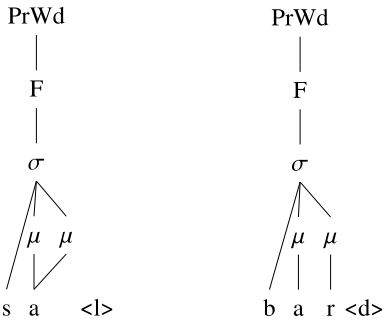
The asymmetrical patterns of CVC syllable in BSD, where it is heavy word medially but light word finally, are accounted for within rule-based approaches by referring to the extrametricality parameter and how it prevents the coda in a final CVC syllable from being moraic. In extrametricality a specific prosodic constituent is deemed unavailable for rule applications (e.g. Hayes 1979, 1982, 1995; Liberman & Prince 1977; Nanni 1977). The coda in CVC syllable in Arabic dialects receives a mora through the parametric rule weight by position, WBP, (Hayes 1989a, 1995). In final position, where extrametricality is an active parameter in BSD, WBP is blocked and the coda is moraless as a result, as in (6).

(6) Monomoraic CV<C> in final position



The extrametricality parameter also accounts for the lack of stress in word final position in BSD, as in (5). In order to exempt words with final CV:C or CVCC syllables from final syllable extrametricality, the peripherality condition (Hayes 1983: 80, 1995: 57), is implemented in which a final consonant in CV:C and CVCC syllables prevents extrametricality from applying to the preceding syllable since it is not peripheral and is separated by a segment from the word edge. The final consonant is called extrasyllabic in these syllables and it does not count toward the moraic weight of the syllable in final position, as in (7).

(7) [sa:l] 'it flowed' [bard] 'cold'



Feet in BSD are iambic, unlike the majority of dialects in the Hijaz region where feet are trochaic. Therefore, in BSD feet can be (L.Ĺ), (L.Ĥ) or a single heavy syllable (Ĥ). This is evident in trisyllabic words with light syllables. In (8) words with different iambic feet are given.

(8) (L.Ĺ)

(ʔa.ká).<lat>	'she ate'
(ʔa.χá).<ðu>	'they (masc.) took'
(ʔu.má).<ra>	'princes'

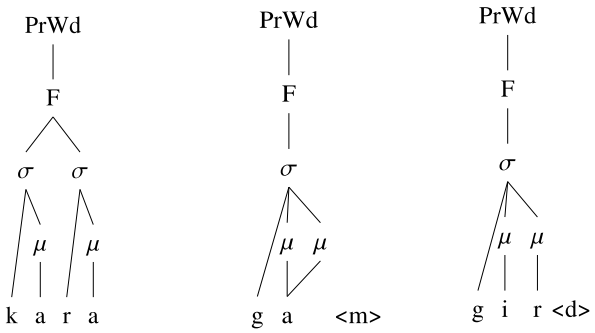
(LĤ)

(si.mák).<na>	'our (masc.) fish'
(ru.má:).<na>	'he hurled at us'
(ki.táb).<tin>	'you (fem. pl.) wrote'

(Ḱ)	
(mák).<tab>	‘office’
(más).<baħ>	‘swimming pool’
(már).<kaz>	‘center’

However, stress is not always iambic in BSD. Disyllabic words with light syllables show trochaic stress, as in (4b). Trochaic stress in rule-based phonology is accounted for by imposing a strict order between final syllable extrametricality and foot binarity. BSD has a minimal word requirement of at least two moras where words need to have at least two light syllables or a single superheavy syllable CV:C or CVCC, as in (9). Minimal word requirement is based on the prosodic hierarchy, which requires each word to have at least a single bimoraic foot (McCarthy & Prince 1990; Hayes 1995; Kager 2007).

(9) [ka.ra] ‘laboured’ [ga:m] ‘he stood’ [gird] ‘monkey’



Minimal word requirement in BSD is evident in the lack of words with CV syllable shapes or CVC syllable shapes. A word with a single CV syllable is not found in BSD because CV syllable is monomoraic, likewise a word that has a CVC syllable shape is monomoraic due to extrametricality, as explained in (5) and (6).

Another evidence of bimoraic weight limit imposed on words in BSD is found in compensatory lengthening. Compensatory lengthening in BSD occurs in order to comply with word weight requirement when vowel deletion renders a word monomoraic, as in (10).

(10)	vowel deletion	compensatory lengthening	
/birak/	brak	[brakk]	‘ponds’
/kutub/	ktub	[ktubb]	‘books’
/furuʃ/	fruʃ	[fruʃʃ]	‘blankets’

To account for trochaic stress in BSD, previous studies implemented extrametricality revocation in disyllabic words with light syllables. According to this approach, since degenerate feet are prohibited in BSD, the final extrametrical syllable is incorporated

after the application of stress, according to the rule in (11), which results in a surface trochaic foot.

(11) Incorporation of extrametrical material (Hayes 1982, 1995)
(X) → (X ˘)
(˘)<˘> (˘ ˘)

The repair mechanism suggested by the rule in (11) is a consequence of the idea that languages allow degenerate feet early in the derivation and subject them to foot-repair mechanisms later in the derivation (Poser 1989; Halle & Kenstowicz 1991). A possible derivation within rule-based phonology is given in (12).

(12) /fida/ 'sacrifice'

a. fi.<da>	final syllable extrametricality
b. (fi).<da>	degenerate foot
c. (fí).<da>	stress
d. (fí.da)	extrametricality revocation to satisfy foot binarity

The order in (12) is critical. A final light syllable in BSD does not receive stress, and, as a result, final syllable extrametricality is suggested to precede stress assignment, see Al Solami (2020, 2022) for more discussion.

The above analysis of BSD runs into some problems. Final syllable extrametricality was invoked in order to avoid word final stress. In words with a final CV:C or CVCC syllables the final consonant has been suggested to fall outside the domain of the final syllable (Aoun 1979; Selkirk 1981; Hayes 1995; Watson 2002). This means that final CV:C or CVCC syllables are not in final position and are separated from the word edge by an intervening consonant. In terms of extrametricality, the intervening consonant prevents these syllables from being extrametrical since extrametricality only applies to peripheral constituents as suggested by the peripherality condition. As a result, extrametricality excludes final CV(C) syllable from stress assignment while it allows superheavy syllables, CV:C and CVCC, to receive stress word finally. This accounts for the majority of the data from BSD; however, it yields the wrong outcome in words ending in long vowels, as in (13). The peripherality condition cannot be invoked for the examples in (13) since CV: syllable is not separated by any segment from the word edge.

(13) [su.mú:] 'highness'
[ʕa.dú:] 'enemy'

Furthermore, while feet are iambic in BSD, the rule-based analysis suggests that trochaic stress in BSD is an exception to the general iambic stress pattern. As in (11) and (12), it proposes that a degenerate foot is allowed initially only to be repaired later in the derivation. However, it is not clear how, in a dialect where degenerate feet are strictly prohibited,

a degenerate foot is allowed to form. This goes against many assumptions of phonology theory where languages show systematic restrictions on the allowable foot type.

The following section provides a more elaborate and coherent analysis of stress patterns within OT framework. The analysis will account for words with a final CV: syllable, and trochaic stress will be regarded as a possible outcome of different ranking between conflicting constraints.

5. OT account of stress patterns in BSD

This section provides an account of stress patterns in BSD within OT (Prince & Smolensky 1993, 2004). According to the theory, universal grammar provides several violable constraints, faithfulness and markedness constraints. The ranking of these constraints evaluates a set of candidates to yield an optimal candidate that satisfies high ranked constraints. In analysing stress patterns using OT, it is possible to account for parameters such as moraic weight, extrametricality, and stress window.

As discussed in section 3, the majority of examples from BSD do not allow stress word finally. Preventing stress word finally in OT is achievable using the constraint NONFINALITY, in (14), as exemplified in the tableau in (15). The version of the NONFINALITY constraint implemented in this paper is violated when a word-final syllable is stressed. BSD allows the optimal candidate to violate this constraint only when a word ends with a heavy syllable, as discussed in (21).

(14) NONFINALITY (NONFIN):
No head of foot-level occurs over the final syllable of a prosodic word (Hyde 2003).

(15)

/maktab/ ‘office’	NONFIN
☞a. (mák).tab	
b. (mak).(táb)	*!

Within OT, word minimum weight in BSD can be accounted for by the constraint in (16). This constraint is ranked high since BSD strongly prohibits degenerate feet.

(16) FOOTBINARITY(FBIN):
Feet are binary (μ, σ) (McCarthy & Prince 1993, 2004)

The data in section 3 shows that stress is assigned to the final member of the binary foot in BSD, which means that stress is iambic and foot inventory includes (L.Ĺ), (L.Ḿ), or (Ḿ). The constraint that ensures that stress is iambic in BSD is given in (17), with an example in (18).

(17) IAMBIC:
Feet are moraic iambs (Hayes 1995).

(18)

/ʔaχaðat/ ‘she took’	NONFIN	IAMBIC	FBIN
☞a. (ʔa.χá).ðat			
b. (ʔá.χa).ðat		*!	
c. ʔa.(χá).ðat			*!
d. ʔa.(χa.ðát)	*!		

The trochaic stress candidate in (b) is ruled out by the IAMBIC constraint. The iambic stress candidate in (a), on the other hand, is the optimal candidate.

In disyllabic words with CVCV(C) syllable structure, feet are trochaic, as in (4b). Trochaic stress arises from the interaction between extrametricality and moraic weight requirement in BSD, as discussed in section 4. However, instead of allowing a degenerate foot to be formed and then include the final syllable after extrametricality revocation to repair the degenerate foot, as discussed in (12), within OT the NONFIN constraint outranks the IAMBIC constraint and, as a result, trochaic stress is found, as shown in the tableau in (19). So, trochaic stress is a possible outcome of the ranking relations between the conflicting constraints.

(19)

/ħama/ ‘he guarded’	FBIN	NONFIN	IAMBIC
☞a. (ħá.ma)			*
b. (ħa.má)		*!	
c. (ħá).ma	*!		*

Tableau (19) shows that the IAMBIC constraint is dominated by the NONFIN constraint. Candidate (b) is eliminated because it has stress word finally violating NONFIN while candidate (c) is eliminated as it incurs a fatal violation of FBIN. The optimal candidate in (a) satisfies the constraint NONFIN but violates the low ranked constraint IAMBIC. This ordering relations between the constraints result in trochaic stress in BSD.

The ordering relations in (19) can also account for stress in trisyllabic words made of light syllables. For example, in (ʔa.χá).ðu ‘they (masc.) took’ the first two syllables form an iambic foot with stress on the second syllable of the foot. Stress is prevented from occurring on the final syllable due to NONFIN while IAMBIC prevents trochaic stress.

One of the problems of rule-based analyses of stress in BSD discussed in section 3 was the inability to account for stress occurring in word final position in words ending in a long vowel such as *mudara:* ‘managers’. Within OT, this is possible through the constraint in (20).

(20) Weight-to-Stress Principle (WSP):
Heavy syllables are prominent on the grid (Prince 1990)

WSP is important for capturing a phonological property shared by many weight-sensitive Arabic dialects where a heavy syllable in the last three syllables attracts stress. It is violated when

a heavy syllable is not stressed, as illustrated in (21). Ranking the WSP constraint above the NONFIN constraint guarantees that a heavy syllable is stressed even in a word final position.

(21)

i.

/sumu:/ 'highness'	WSP	NONFIN
☞a. (su.mú:)		*
b. (sú.mu:)	*!	

ii.

/mudara:/ 'managers'	WSP	NONFIN
☞a. (mu.da).(rá:)		*
b. (mu.dá).(ra:)	*!	

WSP incurs a violation in candidate (b), in both examples, because the heavy syllable does not receive the stress. The optimal candidate in (a) does not satisfy the dominated constraint NONFIN by stressing the final heavy syllable to satisfy the high ranked constraint WSP.

In words with more than one heavy syllable in the last three syllables, stress falls on the rightmost eligible heavy syllable. The constraint in (22) requires the rightmost foot to bear the stress and it ensures that a stressed syllable is aligned with the right edge of the word. This constraint is subject to gradient violation determined by how far the stressed syllable is from the right edge of the word, as shown in (23).

(22) Edgemost(Pk; R; Word):
A peak of prominence lies at the right edge of the word (Prince & Smolensky 1993, 2004)

(23)

i.

/mida:ra:t/ 'orbits'	WSP	Edgemost(Pk; R; Word)	NONFIN
☞a. (mi.da:).(rá:)<t>	*		*
b. (mi.dá:).(ra:)<t>	*	*!	

ii.

/kitabna:ha/ 'we wrote it (fem.)'	WSP	Edgemost(Pk; R; Word)	NONFIN
☞a. (ki.tab).(ná:).ha	*	*	
b. (ki.táb).(na:).ha	*	**!	

iii.

/kattabtu:na:ha/ 'you made us write it (fem.)'	WSP	Edgemost(Pk; R; Word)	NONFIN
☞a. (kat).(tab).(tu:).(ná:).ha	*	*	
b. (kat).(tab).(tú:).(na:).ha	*	**!	
c. (kat).(táb).(tu:).(na:).ha	*	**!*	

In the examples in (23), the optimal candidates are the ones that assign stress to the rightmost heavy syllable. Note that in (23i) the constraint Edgemost(Pk; R; Word) outranks the constraint NONFIN in order to assign stress to a final CV:C syllable.

In disyllabic words with a final CVC syllable, as discussed in (5) and (6), the final CVC syllable is monomoraic due to the lack of mora assignment on the final consonant. Within OT, this is accounted for through the constraint in (24). The *FINAL-C-μ constraint blocks mora assignment to a final consonant in word final position. This results in monomoraic CVC syllable in word final position, as exemplified in (25).

(24) *FINAL-C-μ
Word final consonant is not moraic (Prince & Smolensky 1993, 2004)

(25)

/maktabah/ ‘a library’	*FINAL-C-μ	WSP	Edgemost(Pk; R; Word)	NONFIN
☞a. (má$_{\mu}$k$_{\mu}$).ta$_{\mu}$.ba$_{\mu}$h			**	
b. (mak).(ta$_{\mu}$.bá$_{\mu}$h)		*!		*
c. (mak).(tá$_{\mu}$.ba$_{\mu}$h)		*!		
d. (mak).(ta$_{\mu}$.bá$_{\mu}$h$_{\mu}$)	*!	*		*

Candidates (b) and (c) are eliminated because they incur a fatal violation of the constraint WSP, while candidate (d) is eliminated because it violates the constraint *FINAL-C-μ, which does not allow a final coda to be moraic. The optimal candidate in (a), on the other hand, satisfies these two constraints at the expense of incurring violations of the low ranking constraint Edgemost(Pk; R; Word).

In disyllabic words with final CV:C or CVCC syllables, such as *niba:t* ‘plants’, the initial light syllable is expected to be part of the canonical iambic foot (LH́). In order to parse the light syllable within the foot, the constraint in (26) is implemented. PARSE-σ incurs a violation to any unparsed syllable into a foot, as in (27).

(26) PARSE-σ
All syllables must be parsed into feet (Prince & Smolensky 1993, 2004).

(27)

i.

/niba:t/ ‘plants’	NONFIN	PARSE-σ
☞a. (ni$_{\mu}$.bá:$_{\mu\mu}$)<t>	*	
b. ni$_{\mu}$.(bá:$_{\mu\mu}$)<t>	*	*!

ii.

/maktab/ ‘office’	NONFIN	PARSE-σ
☞a. (mák).tab		*
b. (mak).(táb)	*!	

The PARSE-σ constraint is limited in its application. As in (27ii), it is outranked by the NONFIN constraint. In addition, the PARSE-σ constraint is outranked by the IAMBIC constraint to avoid unwanted foot shapes, such as (ĹH) foot[2], as in (28b).

(28)

/milʕagah/ ‘a spoon’	NONFIN	IAMBIC	PARSE-σ
☞a. (míl).ʕa.gah			**
b. (míl.ʕa).gah		*!	*
c. (mil).(ʕá.gah)		*!	
d. (mil).(ʕa.sáh)	*!		

So far, we have established the following constraint ranking relations in (29).

(29) WSP, *FINAL-C-μ >> Edgemost(Pk; R; Word) >> FBIN, NONFIN >> IAMBIC >> PARSE-σ

The data in section 3 shows that stress in BSD is limited to one of the last three syllables in the word. The order between the constraints so far prevents stress from applying further than the antepenultimate syllable, as in (30).

(30)

i.

/ʔalmaktab/ ‘the library’	*FINAL-C-μ	WSP	Edgemost(Pk; R; Word)	NONFIN
☞a. (ʔal).(mák).ta.ba$_{\mu}$h			**	
b. (ʔal).(mak).(ta.bá$_{\mu}$h)		*!		*
c. (ʔal).(mak).(tá.ba$_{\mu}$h)		*!		
d. (ʔal).(mak).(ta.bá$_{\mu}$h$_{\mu}$)	*!	*		*
e. (ʔál).(mak).(ta.ba$_{\mu}$h)		*!	***	

ii.

/mistagwijah/ ‘strengthened’	*FINAL-C-μ	WSP	Edgemost(Pk; R; Word)	NONFIN
☞a. (mis).(tág).wi.jah			**	
b. (mis).(tag).(wi.jáh)		*!		*
c. (mis).(tag).(wí.jah)		*!		
d. (mis).(tag).(wi.jáh$_{\mu}$)	*!	*		*
e. (mís).(tag).wi.jah		*!	***	

[2] This foot type is reported in some dialects of Arabic, such as Makkan Arabic (Kabrah 2004) and Ruwaili Arabic (Al Solami 2020).

In (30), the eliminated candidates incur fatal violations of the constraint WSP since stress is not assigned to the rightmost heavy syllable. Candidates (id) and (iid) assign a mora to the coda of the final syllable, violating the constraint *FINAL-C-μ, which militates against moraic codas in final position. The optimal candidate in (a) assigns stress to the rightmost heavy syllable.

6. Conclusion

In conclusion, this paper presents an OT-based analysis of stress in a Bedouin Hijazi Arabic. The aim is to provide a cogent and a comprehensive account that covers all the data and to avoid problems in previous studies. It is argued that the foot in BSD is iambic and degenerate feet are strongly prohibited because word minimality requirement stipulates that words need to be at least bimoraic. The constraints suggested for BSD are given in (31).

(31) WSP, *FINAL-C-μ >> Edgemost(Pk; R; Word) >> FBIN, NONFIN >> IAMBIC >> PARSE-σ

The ordering relations between the constraints in (31) induces the expected stress position in different word shapes without the need of including any more parameters. In addition, ranking the FBIN and NONFIN constraints higher than the IAMBIC constraint yields the expected trochaic stress in disyllabic words.

Another important contribution of the study is to account for words with final stress. Words with a final long vowel are found in BSD and are accounted for through the ordering relations between the WSP and NONFIN constraints. That is, the WSP constraint is ranked higher than the NONFIN constraint which means that violating NONFIN is necessary to satisfy the WSP constraint.

Including the Edgemost(Pk; R; Word) constraint in the analysis limits stress to a three-syllable window at the right edge of the word and prevents stress from going further back than the antepenultimate syllable.

Future directions in research could investigate some phonological processes found in BSD, such as vowel deletion and epenthesis, to see how they fit in an OT analysis.

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Appendix

Monosyllabic words:

[dá:m]	‘persisted’
[ná:s]	‘people’
[ná:ʃ]	‘touched’
[fá:r]	‘boiled’
[tíbt]	‘I repented’
[níʃt]	‘I touched’
[fĩzt]	‘I won’
[gímt]	‘I stood’

Disyllabic words:

[sí.ma]	‘sky’
[rí.ga]	‘he climbed’
[mí.ʃa]	‘he left’
[ʃĩ.bir]	‘handspan’
[há.ram]	‘pyramid’
[ħá.mas]	‘toasted’
[ʃa.hád]	‘testified’
[ru.bá:tˁ]	‘tying rope’
[ba.rá:ħ]	‘wideness’
[ka.lá:m]	‘talk’
[ni.zálṭ]	‘I/you (masc. sg.) climbed down’

[fa.ráʃk] ‘he whipped you (masc. sg.)’
[si.míʕt] ‘I/you (masc. sg.) heard’
[lá:.mat] ‘she blamed’
[fá:.zat] ‘she won’
[ná:.zil] ‘climbing down’
[mán.zil] ‘house’
[más.kah] ‘a hold’
[fár.ħah] ‘happiness’
[ʃa:.lú:h] ‘they (masc. pl.) carried him’
[la:.mú:h] ‘they (masc. pl.) blamed him’
[na:.ʃú:h] ‘they (masc. pl.) touched him’
[mad.ʕú:m] ‘supported’
[mar.kú:n] ‘neglected’
[mat.rú:k] ‘left behind’
[χa:.látk] ‘your (masc. sg.) aunt (maternal)’
[na:.ʃátk] ‘she touched you (masc. sg.)’
[na:.dátk] ‘she called you (masc. sg.)’
[ðˁar.bátk] ‘your (masc. sg.) hit’
[ʁur.fátk] ‘your (masc. sg.) room’
[nab.tátk] ‘your (masc. sg.) plant’

Trisyllabic words:
[si.mák.ha] ‘her fish’
[li.bás.ha] ‘he wore it (fem.)’
[di.fáʕ.ha] ‘he paid it (fem.)’
[máz.ra.ʕah] ‘a farm’
[máʁ.sa.lah] ‘sink’
[di.wá:.jir] ‘circles’
[zi.bá:.jil] ‘garbage’
[ma.rá:.kiz] ‘centers’
[mi.sak.tú:h] ‘you (masc. pl.) captured him’
[ha.zam.tú:h] ‘you (masc. pl.) defeated him’
[ki.ʃaf.tú:h] ‘you (masc. pl.) disclosed it’
[mi.da:.rá:t] ‘orbits’
[du.wa:.má:t] ‘jobs’
[ka.ra:.má:t] ‘miracles’
[dʒa:.mal.ná:h] ‘we complemented him’
[wa:.dʒah.ná:h] ‘we saluted him’
[ga:.bal.ná:h] ‘we met him’
[dʒa:.mál.na] ‘we complemented’
[wa:.dʒáh.na] ‘we saluted’
[ga:.bál.na] ‘we met’

Longer words:

[dʒa:.mal.ná:.hum]	‘we complemented them (masc. pl.)’
[wa:.dʒah.ná:.hum]	‘we saluted them (masc. pl.)’
[ga:.bal.ná:.hum]	‘we met them (masc. pl.)’
[ki.tab.tú:.ha]	‘you (masc. pl.) wrote it (fem.)’
[ra.ħam.tú:.ha]	‘you (masc. pl.) forgiven it (fem.)’
[fa.ram.tú:.ha]	‘you (masc. pl.) minced it (fem.)’
[ki.tab.tú:.ni]	‘you (masc. pl.) wrote me’
[ra.ħam.tú:.ni]	‘you (masc. pl.) forgiven me’
[fa.ram.tú:.ni]	‘you (masc. pl.) hit me hard’
[dʒa:.mal.ná:.ha]	‘we complemented her’
[wa:.dʒah.ná:.ha]	‘we saluted her’
[ga:.bal.ná:.ha]	‘we met her’

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A contrastive analysis of aspect in English and Moroccan Arabic

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This study endeavors to undertake a comparative analysis of aspect in English and Moroccan Arabic, hereafter referred to as MA, adopting a cognitive linguistic approach, with special attention to the categorization of different situation types as proposed by Radden and Dirven (2007). It also aims to highlight the aspect areas that may challenge Moroccan EFL learners when acquiring this English grammatical construction. The study reveals that aspect is treated differently in English and MA. English aspect hinges on the viewing frame adopted. Therefore, the shift from one viewing frame to another results in the change from one situation type to another. By contrast, in MA, the perfective use calls for the adoption of a maximal viewing frame. However, the imperfective use calls for two interpretations: the event can be seen with either a maximal or a restricted viewing frame. In the absence of elements that co-determine the aspect in MA, general context is the only indication of the appropriate interpretation. The differences in the aspectual systems of English and MA may lead to difficulties in language acquisition. MA learners attempting to learn English, and vice versa, may face challenges in learning both the grammatical structure and its associated meanings.

Keywords: aspect, viewing frame, cognitive linguistics, situation types, language acquisition

1. Introduction

Aspect represents the "different ways of viewing the internal temporal constituency of a situation" (Comrie 1976: 3). Radden and Dirven (2007) assert that there are two types of aspect which depend on whether the speaker views a situation with a maximal or a restricted viewing frame. In other words, the viewing frame adopted allows us to see the entirety of a scene, or to zoom in to see part of it. These two types of the viewing frame are instigated by the grammatical structures used in sentences. In the present study, we aim to compare and

analyse the similarities and differences between English and Moroccan Arabic (henceforth: MA)[1] aspect when it interacts with the different situation types.

The article is organized into three sections and a conclusion. The first section discusses the notion of aspect within the framework of linguistic theory, in general, and Cognitive Linguistics, in particular. The second section draws a comparison between the verbal system in English and MA. The third section discusses the similarities and differences between English and MA aspect as expressed in the different situation types. The conclusion makes a few predictions regarding features of the English aspectual system that are likely to be challenging to Moroccan learners of English as a foreign Language (EFL).

2. Aspect in linguistic theory

Aspect has received considerable attention in linguistic theory. Regarding form, four approaches will be briefly discussed here, namely those advanced by Vendler (1967), Michaelis (1998), Langacker (1999), and Croft (1998). Vendler and Michaelis make a distinction between lexical aspect and grammatical aspect. Lexical aspect indicates that aspectual meaning is expressed by lexical items, particularly verbs. Grammatical aspect indicates that aspectual information is expressed by language-specific grammatical means. In the works of Langacker and Croft, no distinction is made between lexical and grammatical aspect. In terms of meaning, we will address the shift made from describing aspect as "the internal temporal constituency of a situation" (Comrie 1976: 3) to characterizing aspect as denoting viewpoint and playing a role in forging connections across clauses (Boogaart & Janssen 2007: 817). After that, the viewing frame and its interaction with situations will be addressed as discussed in Radden and Dirven (2007).

2.1. Aspect form

A distinction in the traditional literature on aspect is usually made between two types: lexical aspect or *Aktionsart* and grammatical aspect or simply aspect (Boogaart & Janssen 2007). Regarding the first type, Vendler (1967) proposes four time schemata based on three criteria. The first criterion depends on whether the situation as enunciated by the verb has duration; The second one depends on whether the situation involves change; And the third one depends on whether the situation has an inherent end point (telic is the term used to describe a situation that has an inherent end point). The use of these three criteria results in the four so-called Vendler classes of verbs. Table 1 illustrates Vendler's classification with examples adapted from Boogaart and Janssen (2007).

[1] The variety described in this study is the one spoken in cities like Rabat, Casablanca, Kénitra and other urban centers in the Atlantic plains. It is the most prestigious variety usually used in television programs and radio broadcasts.

Table 1: Vendler's (1967) lexical aspectual classes

	Duration	Change	Telicity	Examples
State	+	–	–	*love*, *have*
Activity	+	+	–	*walk*, *swim*
Accomplishment	+	+	+	*paint a picture*, *build a house*
Achievement	–	+	+	*recognize*, *stop*

As illustrated in Table 1 STATE verbs are durative, have no change, and atelic, ACTIVITY verbs are durative, have change, and atelic, ACCOMPLISHMENT verbs are durative, have change, and telic, and ACHIEVMENT verbs are non-durative, have change, and telic.

There are two features which are fundamental in distinguishing between these classes. The first one is whether the class has a natural stopping point (Boogaart & Janssen 2007). That is, is it telic or atelic? Thus, states and activities are atelic while accomplishments and achievements are telic. The second one is whether we can evaluate the class as progressing or developing (ibid.). That is, is it dynamic or static? Or does it have stages or not? In general, verbs belonging to states and achievements do not appear in the progressive, while verbs belonging to activities and accomplishments do. To illustrate, consider the following examples:

(1) *Wilson loves Sarah.*
(2) *Adam swam yesterday.*
(3) *James built a house.*
(4) *Ana recognized James.*

In example (1), there is nothing that can draw the loving state to an end, and it cannot be said to "go on", thus *Wilson is loving Sarah* is questionable. Likewise, in example (2), there is nothing in the description of the activity of swimming which implies that an end point occurs. But, unlike states, activity verbs can be said to "go on', thus it is grammatical to say *Adam was swimming at 9 p.m. yesterday*. In Example (3), an event which makes "James built a house" true is over when James finished building a house. Therefore, accomplishments have an inherent end-point. They are also dynamic since they can appear in the progressive, so it is fully acceptable to say *James was building a house*. Example (4) illustrates the achievements class. Verbs belong to this class have an inherent end-point, thus, the event of recognizing James in Example (4) is over when Ana recognizes James. Situations belonging to this class are inexpressible in progress because they are near instantaneous. That is, they finish as soon as they have begun (Rothstein 2004).

Landman (1992) accounts for the non-progressive aspect of states and accomplishments by arguing that these two classes do not have stages. Rothstein (2004: 12) claims that there

are two different reasons for this. Achievements are not time-extended because they are instantaneous, and stages are indistinguishable. On the other hand, states are long enough, but they are non-dynamic. This means that we cannot distinguish stages because every segment is a mirror image of every other segment (Radden & Dirven 2007).

One of the problems that Vendler's classification suffers from is that looking at verbs alone is inadequate in order to determine lexical aspect (Boogaart & Janssen 2007: 814). For instance, the verb *walk* by itself is atelic. By contrast, the predicate *walk a mile* is telic. This suggests that other elements in the clause can contribute jointly to determine the "lexical" aspect. As a result, Boogaart and Janssen (2007: 814) conclude that lexical aspect "is a property of complete clauses rather than a property of verbs or predicates."

Michaelis (1998) makes a clear distinction between lexical and grammatical aspect, as situation aspect and viewpoint aspect, respectively. She argues that the contrast between events and states falls under the purview of the situation aspect. Situation aspect is detached from its specific manifestation in a given language because it is universal rather than language specific. In addition, she maintains that the grammatical encoding of the event/state distinction using language-specific resources is the concern of the viewpoint aspect (Michaelis 1998). In this respect, "there is no one-to-one mapping between situation aspect and viewpoint aspect, since viewpoint aspect may override "the canonical representation" of situations" (Boogaart and Janssen 2007: 816). To illustrate, consider these two examples:

(5) a. ? *I am loving her.*
b. *I am loving her more and more, the better I get to know her.*

As the verb *love* belongs to Vendler's class of states, it hardly appears in the progressive form. The verb *love* in example (5a) is durative, has no change, and atelic; therefore, the use of the construction in the progressive form is not acceptable. By contrast, the state of loving in (5b) involves change, thus it is acceptable in the progressive form. In this case, a shift in "temporal scale" leads to a shift in acceptability (Boogaart & Janssen 2007: 816). This argues for the claim that the viewpoint aspect may override the commonly accepted representation of situations. Michaelis (1998) considers the progressive an "override construction" in English.

In Langacker's (1999) account, English verbs belong to one of two broad-ranging aspectual classes: perfective and imperfective. Perfective verbs have "the basic cognitive capacity of perceiving change" (Boogaart & Janssen 2007: 816). In contrast, imperfective verbs lack this capacity. The test used by Langacker (1998) to distinguish between perfective and imperfective verbs is their congruence with the progressive form. Therefore, perfective verbs can occur in the progressive, while imperfective verbs cannot. It is worth noting that the progressive/non-progressive test is used by Vendler to distinguish states from non-states (Vendler 1967: 98). However, the perfective processes provided by Langacker cannot be seen as equivalent to the telic situation types provided by Vendler. In this respect, atelic activity verbs such as walk, swim, sleep in Vendler's account denote perfective processes in Langacker's account.

Langacker (1999) argues against Vendler's firm lexical categorization of verbs. He claims that verbs may have a predefined value. However, the aspectual interpretation that can be given to any expression is "flexibly and globally determined" (Langacker 1999: 390). To illustrate this point, Boogaart and Janssen (2007: 815) provide the following examples:

(6) a. *The road winds through the mountains.*
b. *The road is winding through the mountains.*

The construction in (6a) does not entail change because the verb *wind* is imperfective in Langacker's terminology. By contrast, the same verb in (6b) is used in the progressive form; therefore, it is perfective in Langacker's terminology. These two examples provide clear evidence of the role of construal in the domain of aspect (Boogaart & Janssen 2007: 815). Accordingly, the same situation can be construed as either perfective or imperfective. Based on the discussion of the two constructions in (6), Langacker (1999) concludes that there is no fundamental distinction between lexical and grammatical aspect. Both are encompassed by the concept of "perfectivity" which can be applied to verbs, expressions, and constructions.

Langacker (1999) suggests that the distinction between count/mass nouns in terms of boundedness can be beamed onto the distinction between perfect and imperfect aspect. The term boundedness "relates to whether a quantity is understood as having inherent boundaries (bounded) or not (unbounded)" (Evans & Green 2006: 519). In the domain of space, boundedness is the major element used to distinguish between count and mass nouns (Langacker 1999). For instance, count nouns such as *pen* and *ruler* have bounded structure. That is, each noun assigns an entity with inherent 'boundaries' which can thus be individuated and counted. In contrast, mass nouns such as *water* and *air* do not have inherent 'boundaries', and thus cannot be individuated or counted. Similarly, in the domain of time, boundedness applied to discern between perfect and imperfect aspect (Evans & Green 2006). To illustrate, consider the following examples:

(7) a. *Adam has had a shower.*
b. *Adam is having a shower.*

The perfect aspect, which is marked by the use of the perfect auxiliary *have* and the past participle *had*, encodes the event in (7a) as complete and thus construed as bounded. This is because the perfect aspect used in the construction allows us to see the event in its entirety and thus has boundaries. By contrast, the imperfect aspect, which is marked by the progressive auxiliary *be* followed by the progressive participle *leaving*, encodes the event in (7b) as 'ongoing' and can thus be construed as unbounded. This is because the imperfect aspect used in the construction allows us to see the event in its progress and thus has no boundaries.

Another account to aspect is proposed by Croft (1998). Croft refers to Langacker's perfectives as actions since they involve change, and imperfectives as states since they do not involve change. He further classifies actions into processes and achievements. Processes extend in time, while achievements do not.

Furthermore, he tackles the issue of the complex interplay between aspectual grammatical constructions and the temporal structure of events as designated by verbs. A good example of such complex interplay is the simple/progressive distinction in English as discussed in Boogaart & Janssen (2007). In this respect, Croft (1998) claims that lexical aspect seems to determine certain grammatical patterns. For instance, the verb *learn* in example (8) cannot be used in the simple present unless the sentence receives a habitual reading.

(8) *He learns the poem.*

In addition, as has been mentioned earlier, "aspectual constructions provide a conceptualization of the temporal structure of the event, and language users are flexible in adjusting the temporal structure to fit the construction" (Boogaart & Janssen 2007: 16). This idea is well illustrated in example (5) above. As has been noted, even though it is unusual for stative verbs such as *love* to appear in the progressive form, the construction in (5b) with the verb *love* in the progressive form is acceptable. This is because the state of loving in this construction is construed as involving change, thus it is acceptable in the progressive form.

2.2. Aspect meaning

In cognitive linguistics literature, there is a transition from describing aspect as "the internal temporal constituency of a situation" (Comrie 1976: 3) to characterizing aspect as denoting viewpoint and playing a role in forging connections across clauses (Boogaart & Janssen 2007). To elaborate the idea of aspect and view point, Cutrer (1994) uses mental space theory notions to describe the difference between the French perfective past *passé simple* and the imperfective past *imparfait*. Cutrer (1994) argues that the distinction between the French perfective and imperfective aspect is a matter of perspective. The perfective past does not characterize the Focus space as Viewpoint space, whereas the imperfective aspect does. Cutrer (1994: 193) provides the following description to IMPERFECTIVE and PERFECTIVE:

> The IMPERFECTIVE identifies a focus space N and indicates that N is viewpoint.
> The PERFECTIVE identifies a focus space N and indicates that N is not viewpoint.

The situation in the perfective past is construed from an external Viewpoint because the perfective past does not identify the past Focus space as Viewpoint. By contrast, the imperfective past identifies the past Focus space as Viewpoint. Thus, it makes a shift from an "external" Viewpoint to an internal one (Boogaart & Janssen 2007). To illustrate, consider the following examples:

(9) Passé simple: *Pierre arriva.* (Pierre arrived) (perfective)

(10) Imparfait: *Pierre arrivait.* (Pierre was coming) (imperfective)

In example (9), the speaker uses the perfective to indicate that he has an external viewpoint of the event. He does not indicate the past Focus space as Viewpoint. Thus, he sees the scene of arriving in its entirety. This is impossible unless the speaker has an external point of view of the scene. In contrast, he uses the imperfective in (10) to indicate that the speaker has an internal viewpoint of the event. He indicates the Focus space as Viewpoint. Thus, he has an internal view of the scene of arriving. This internal viewing is allowed by using the Focus space as Viewpoint.

On the other hand, aspect plays a role in forging connections across clauses (Boogaart & Janssen 2007). In this respect, Hopper (1982: 5) claims that "the fundamental notion of aspect is not a local-semantic one, but is discourse pragmatic". He contends that the perfective and imperfective distinction represent foreground and background in discourse. He further explains that the perfective is the prevalent form used to express sequential events in narratives. In other words, the perfective form is used to convey information "on the temporal ordering of situations presented in consecutive sentences" (Boogaart & Janssen 2007: 818). By contrast, the imperfective aspect is used as a background to situations, descriptions and actions which are simultaneous or overlap with a perfective event. Thus, the imperfective form describes situations that are in progress in the background.

2.3. The interaction of situations and aspect as a viewing frame

Viewing frame is a key element in Radden & Dirven (2007) classification of situation types, particularly when situation types interact with aspect. Therefore, an illustration of viewing frame is of importance here. Viewing frame is of two types: maximal and restricted. The two types are evoked by grammatical structures used in sentences in terms of progressive and non-progressive in English. To illustrate, consider the examples in (11) below:

(11) a. *Adam drove to work.*
b. *Adam was driving to work.*

The use of the non-progressive aspect in sentence (11a) allows us to see the whole route of Adam's car from his home to his work. It is a construal that provides a maximal viewing frame of the scene. By contrast, the use of the progressive aspect in sentence (11b) allows us to see part of the scene. It is a construal which provides a restricted viewing frame of the scene.

The interaction of aspect and situations results in categorizing situations to different types. Broadly speaking, a situation is "understood here in the sense of events that happen or states that things are in" (Radden & Dirven 2007: 47). Thus, *James is cooking a pizza* is a typical event and *James is overjoyed* a typical state.

Radden and Dirven (2007) assert that situations are characterised by an important property which is the main element used in classifying situation types: it has a particular temporal structure. That is, some situations have a starting point, an end-point and a certain duration as in *My uncle brought a nice car*. Other situations do not have a starting point or an end-point

and hence no specific duration as in *He lives in Morocco*. The two examples belong to two different types of situations: the former describes an event, while the latter describes a state. These are the two main types of situations.

When aspect interacts with these two types of situations (events and states), they result in eight types of events and five types of states (Radden & Dirven 2007). Four types of events are bounded, namely accomplishments, bounded activities, achievements, and acts. The other four types are unbounded, namely accomplishing activities, unbounded activities, culminating activities, and iterative activities. Three types of sates are bounded, namely indefinitely lasting states, habitual states, and everlasting states. The other two types are unbounded, namely temporary states and temporary habitual states. By comparing and analyzing these types in English and MA, we will shed light on the way these two systems handle aspect.

3. Verb forms in English and MA

In English, verbs have several different forms that indicate tense, aspect, mood, and agreement with the subject. The main verb forms in English are: the infinitive, the present, the past, the future, and the participle (Larsen-Freeman & Celce-Murcia 2015: 20-21).

The infinitive is the base form of the verb such as go, walk, etc. The infinitive form may be used alone or in conjunction with the particle *to* (the *to*-infinitive), e.g., *She saw him swim v. She wants to swim* (Crystal 2008: 243). The present form of verbs usually marked by adding *-s* to the base form in the third singular person as in *He sings,* and the absence of affix in the first and second singular person as in *I read* and *they play*. The past form of the verb is of two types; regular and irregular. Regular verb forms are marked by adding *-ed* to the base form as in *Jessica listened to music yesterday*. Irregular verb forms do not follow the regular pattern of verb conjugation for the past tense and past participle forms. They generally have unique and sometimes unpredictable forms for these tenses. The future is generally marked by will + the base form of the verb as in *They will travel next month*. It can also be marked by the present form of verb to be + the base form + -ing. Another verb form that indicates the future is going to + the base form.

The participle is a special verb form that functions as an adjective or a part of a verb phrase (Crystal 2008: 351-352). There are two types of participles: the present participle and the past participle. The present participle is marked by adding *-ing* to the base form of the verb. The past participle is used in various verb forms, such as the present perfect, past perfect, and passive voice. For regular verbs, the past participle is often marked by adding *-ed* to the base form of the verb. However, for irregular verbs, the past participle may have a different form.

In MA, there are two main verb forms: the so-called perfect and the so-called imperfect (Harrell 1962: 173). The perfect indicates simple past actions as in *ktəbt-ha* 'I wrote it' (ibid.). The imperfect indicates potential action with various shades of meaning, such as immediate future action, demands, exhortations, or proposals (ibid.: 174). These two verb forms have various conjugations that occur based on tense and aspect. Table 2 summarizes the various conjugations of the perfect (past) and imperfect (present) verb forms for the verb *ktəb* 'to write'.

Table 2: The conjugations of the perfect and the imperfect verb forms for the verb *ktəb* 'to write' in MA

	Perfect	Imperfect
1st person singular	*ktəbt* 'I wrote'	*nəktəb* 'I write'
2nd person singular masculine	*ktəbt* 'you wrote'	*təktəb* 'you write'
2nd person singular feminine	*ktəbti* 'you wrote'	*tkətbi* 'you write'
3rd person singular masculine	*ktəb* 'he wrote'	*yəktəb* 'he writes'
3rd person singular feminine	*kətbat* 'she wrote'	*təktəb* 'she writes'
1st person plural[2]	*ktəbna* 'we wrote'	*nkətbu* 'we write'
2nd person plural	*ktəbtu* 'you wrote'	*tkətbu* 'you write'
3rd person plural	*kətbu* 'they wrote'	*yəkətbu* 'they write'

It is worth mentioning that the perfect marks only complete actions in the past as in *ktəb risala* 'He wrote a letter'. However, the imperfect, in addition to other markers, can be used to mark different tenses and aspects. With the prefix *ka-*, the imperfect marks the present habitual (it is also referred to as the durative in the present) as well as the ongoing actions in the present as in *ka-yəktəb r-rasaʔil lə-ṣħab-u* which can be translated as 'He writes letters to his friends' or 'He is writing letters to his friends'. It also marks the past habitual (it is also referred to the durative in the past) and ongoing actions in the past when it is used with the perfect of the auxiliary verb *kan* 'to be' and the prefix *ka-* as in *kan ka-yəktəb r-rasaʔil lə-ṣħab-u* 'He used to write letters to his friends/ He was writing letters to his friends'. The imperfect verb form can also mark the future when it is combined with the particle *ġadi* as in *ġadi yəktəb risala* 'He is going to write a letter'.

In addition to the perfect and the imperfect, MA has two other forms, namely the imperative and the active participle. The imperative is "morphologically defined only for the second person" (Harrell 1962: 175). It lacks subject pronoun and usually takes the basic form (root) without any tense or person markers. A typical example of this type of verbs is *ktəb* 'Write!'. The active participle "functions as a verb in the sense that it takes objects and indicates various degrees of time and manner of verb actions" (Harrell 1962: 173). A typical example of the active participle would be *galəs* 'sitting' in *ṛa-h galəs fə-ḍ-ḍaṛ* 'He is staying at home'.

Unlike the imperfect verb form, the active participle cannot be used with the durative *ka-* and the particle *ġadi*. It can only be used with particles that function as auxiliaries such as *kan* 'to be' as in *kan galəs fə-ḍ-ḍar* 'He was staying at home' and *ṛa-*[3] 'there' as in *ṛa-h galəs fə-ḍ-ḍaṛ* 'He is staying at home'. In this example, the demonstrative particle *ṛa-* functions as the verb *to be* indicating that the speaker emphasizes that he is staying at home.

[2] When no reference is made to gender, that implies that it is neutralized.

[3] *ṛa* is a demonstrative particle used to emphasize or affirm a state or an action as in *ṛa-huwa ža* meaning 'He's come' or 'He's right there'. It also signifies remoteness (in contrast to *ha-)* as in *ṛa-huwa təmma* meaning 'He's over there' or 'There he is' (Harrell & Sobelman 2004: 120).

4. A contrastive analysis of aspect in English and MA

English and MA handle aspect differently. Whereas the perfective/imperfective aspect distinction is made clear in English by the use of non-progressive/progressive forms, respectively, the MA aspectual system is more complex, and the distinction made between perfective/imperfective verbs is not enough to classify a certain construction as perfective or imperfective. To see how these two language systems handle aspect, the different situation types proposed by Radden and Dirven (2007) will be compared and analysed.

4.1. Types of events

Events "are dynamic situations that involve changes and hence heterogeneous" (Radden & Dirven 2007: 177). When aspect interacts with event situations, it results in different types of events. Events can be bounded or unbounded. Bounded events are viewed with a maximal viewing frame, are seen externally, and in their entirety. Unbounded events are viewed with a restricted viewing frame, are seen internally, and in their progression. In English, bounded events are marked by the use of the non-progressive form of verbs. In MA, the use of the perfective necessitates the event to be bounded. The imperfective when combined with other elements can also make the event bounded. Example (12a) illustrates bounded events as marked by the use of the non-progressive form in English, and (12b) illustrates them by the use of the perfective form in MA.

(12) a. *Ann changed the baby's nappy.*

b. *an* *bəddlat* *l-kuš* *l-l-uliyyəd*
Ann change.PRF.3.SG.F DEF-nappy to-DEF-baby
'Ann changed the baby's nappy.'

In English, the event in (12a) is bounded since it is marked by the non-progressive form of the verb *changed*. Similarly, in MA, the event in (12b) is bounded since the verb *bəddlat* 'changed' is in the perfective form. We can conclude that as the use of the non-progressive marks bounded events in English, the use of the perfective form of the verb marks bounded events in MA. In this sense, the non-progressive in English is equivalent to the perfective in MA.

However, things seem different when we compare the use of the progressive in English and the imperfective in MA. While the progressive marks unbounded events in English, the imperfective does not necessarily mark them in MA. In fact, other elements are combined with the imperfective to determine whether events are bounded or unbounded in MA. To illustrate, consider the following examples:

(13) a. *Ann was changing the baby's nappy.*

b. *an* *kant* *ka-tbəddəl* *l-kuš* *l-l-uliyyəd*
Ann be.PRF.3.SG. DUR-change.IMPRF.2.SG.F DEF-nappy to-DEF-baby
'Ann was changing the baby's nappy.'/ 'Ann used to change the baby's nappy.'

The use of the progressive in the event expressed in (13a) implies that it is viewed internally. Thus, the event in (13a) is unbounded in English. By contrast, it seems that, in addition to the imperfective, other elements in the clause co-determine aspect in MA. For instance, the construction in (13b) is ambiguous in the sense that the prefix *ka-* is polysemous. It indicates the construction as unbounded (on progress) as well as bounded (in this case habitual). To specify (13b) as bounded, and therefore understood as habitual, the speaker may use adverbs such as *kull saʕtayn* 'every two hours'. And to specify it as unbounded, the speaker may use adverbs such *dak l-waqt* 'at that time', or the active participle *galsa* 'sitting', which functions as an auxiliary when preceded the durative. In the absence of any element to co-determine the aspect of constructions in MA, general context is the only indication to the appropriate interpretation.

The above conclusions can be generalized over the various types of events. Accordingly, in English, the progressive and non-progressive are used to denote unbounded and bounded events, respectively. By contrast, in MA, the perfective is used to denote bounded events, while the imperfective are used to denote unbounded events and habitual events which are considered bounded by the theoretical framework adopted in this study. The various types of events will be addressed in terms of pairs. This is due to the fact that the types constituting each pair share almost the same characteristics. The only difference between them lies in the viewing frame adopted.

Accomplishments and accomplishing activities are the first pair to discuss. Accomplishments are bounded telic events that take a certain duration for their completion. They require an energy source that propels the event to its conclusion. They consist of a series of cumulative phases leading to a conclusive end-point. Each of the cumulative phase or sub-events, contributes to the completion of the event as a whole, which therefore takes a certain amount of time to be realized (Radden & Dirven 2007). Accomplishments are only called so when the activity is completed, otherwise it is called an accomplishing activity (ibid.). That is, an accomplishing activity is when an event stops midway. In English, accomplishments are marked by the use of verbs in the non-progressive form as in (12a) while accomplishing activities are marked by the use of verbs in the progressive form as in (13a) above. Thus, accomplishments are bounded and therefore viewed with a maximal viewing frame, while accomplishing activities are unbounded and therefore viewed with a restricted viewing frame.

In MA, the use of the perfective form of the verb poses no challenges since it denotes the activity as an accomplishment as in (12b). The use of the perfective form of verbs in MA is used only with bounded situations. However, the use of the imperfective form of the verb in (13b) denotes the activity either as an accomplishing activity or as a habitual. Thus, the use of the imperfective does not oblige MA users to change their viewing frame. It is the use of the imperfective with other elements such as adverbs, the active participle *galəs* 'sitting', and general context which co-determine the adopted viewing frame as illustrated above.

The second pair to discuss involves bounded and unbounded activities. In general, activities are durational and atelic events. They do not have a conclusive end-point. They are solely characterized by their duration. They may involve intentionally acting humans and non-humans. Instances of activities carried out by humans are running, smiling, drinking

water, etc. Instances of activities in the non-human world are usually seen as processes and include raining, the wind blowing, the sun shining, etc (Radden & Dirven 2007). There are two main types of activities, namely bounded and unbounded activities. To illustrate, consider the following examples:

(14) a. *They played football.*
b. *ləʕbu* *l-kuṛa*
play.PRF.3.PL DEF-football

(15) a. *They were playing football*.
b. *kanu* *ka-yləʕbu* *l-kuṛa*
be.PRF.3.PL DUR-play.IMPRF.3.PL DEF-football

Bounded activities are viewed externally. They are marked by the use of the non-progressive form of verbs in English as in (14a). By contrast, unbounded activities focus on the progression of the event. They are seen internally. They are marked by the use of the progressive form of verbs in English as in (15a). Both bounded and unbounded activities are durational and atelic. But "the different viewing frame imposed on each of them gives rise to different grammatical behaviour and different meanings in English" (Radden & Dirven 2007: 186).

The MA counterpart of the bounded activity expressed in (14b) behaves in the same way it does in English. This is because the use of the perfective form of the verb *ləʕbu* 'they played' in (14b) compels users to view the construction with a maximal viewing frame. However, the MA counterpart of the unbounded activity expressed in (15b) does not behave in the same way it does in English. The use of the polysemous prefix *ka-* and the imperfective form *yləʕbu* 'playing' does not specify whether the activity is bounded or unbounded as mentioned earlier. The sentence in (15b) can be understood as an activity in progression or as a habitual. As indicated earlier, MA users use other elements such as adverbs, and the active participle *galəs* 'sitting' to specify which type of activity is used; otherwise, general context is the only indication to the appropriate interpretation.

Radden and Dirven (2007) maintain that temporal boundaries are important for bounded activities in English. As a result, without these boundaries bounded activities sound odd as in **They played*. By contrast, in the absence of temporal boundaries, bounded activities sound fully acceptable in MA as in *ləʕbu* 'they played'. This is because MA bounded activities depend on presuppositions as their boundaries which allow them to sound fully acceptable without temporal boundaries.

By contrast, temporal boundaries are not important for unbounded activities in both languages. Accordingly, it is fully acceptable to say *They were playing in English*. Likewise, it is fully acceptable to say *kanu ka-yləʕbu* 'They were playing' in MA. It seems that the focus on the progression of the action allows users of the two languages to neglect the boundaries of the unbounded activities. Therefore, they are not necessary to be mentioned in these constructions (Radden & Dirven 2007: 186).

In English as well as in MA, there are other boundaries which can be used with bounded activities and result in a perfectly well-formed construction without providing any further context. For instance, in English, it is fully acceptable to say *They played marbles*, *They worked on their articles*, *They worked in the garden*. These activities are bounded by invoking the domain of the play, the domain of the work, and the domain of space, respectively (Radden and Dirven 2007). The same thing can be said about these examples' counterparts in MA. Thus, it is fully acceptable in MA to say *ləʕbu l-biy* 'They played marbles'*, xədmu ʕla l-maqal dyal-hum* 'They worked on their article', and *xədmu fə-j-jəṛḍa* 'They worked in the garden'.

In English and MA, bounded and unbounded activities evoke subtle nuances in meaning that often go beyond temporal notions. They can differ with respect to implicatures by the type of the aspect used. For instance, the bounded activity *I talked to Mr. Green* and its counterpart in MA *ḥḍəṛt mʕa ssi grin* suggest that the speaker initiated the talk, that his talk with Mr. Green was held with some purpose in mind, and that their conversation led to some result. We conclude that the non-progressive in English and the perfective in MA used in the bounded activities invites implicatures of factuality and determination.

By contrast, the unbounded activity *I was talking to Mr. Green* and its counterpart in MA *kunt ka-nəhḍəṛ mʕa ssi grin* imply that the speaker possibly happened to meet Mr. Green, that they talked for talk's sake, and that they only had some casual small talk. Likewise, when this example is understood as bounded in MA, it suggests that the speaker used to meet Mr. Green, that they used to talk for talk's sake, and they used to have casual talk. The progressive in English and the imperfective in MA used in unbounded activities may give rise to all sorts of interpretations due to their focus on the event's progression.

Achievements and culminating activities constitute the third pair of events' types. Achievements are bounded events that focus on the punctual moment of the event's termination and invoke a preceding culminating or "build-up" phase (Radden & Dirven 2007). They have no duration. They apply to terminal situations as in (16a):

(16) a. *The baby fell asleep.*

b. *l-uliyyəd* *ṭaħ* *bə-n-nʕas* (achievement)
DEF-baby fall.PRF.3.SG.M PREP-DEF-sleep

The situation depicted in example (16a) involves a "build-up", or culminating phase leading to a terminal point. It is, in this sense, in contrast to an accomplishment. Likewise, the equivalents of (16a) in MA as shown in (16b) is viewed with a maximal viewing frame, so it is bounded. It is punctual since it does not require a duration for the event to happen. That is, we cannot say that *l-uliyyəd nʕəs* 'The baby fell asleep' until it happens and becomes part of the past.

The point of termination is profiled whereas the culminating phase is only invoked (Radden & Dirven 2007). This is justified by the fact that we cannot amalgamate achievements with durative adjuncts denoting a stretch of time in English and MA. So, we cannot say **the baby fell asleep for an hour* in English or * *l-uliyyəd ṭaħ bə-n-nʕas l-muddat saʕa*

in MA. These two examples sound odd because achievements occur. That is to say, they are not brought about intentionally. Accordingly, people cannot be asked to perform an achievement because it is beyond a person's control, for instance we cannot issue the order: *Fall asleep* in English or *ṭiħ naʕəs* 'fall asleep' in MA.

The unbounded counterparts of achievements are called culminating activities. In this type, the focus is on the terminal point of achievement or the build up phase preceding the achievement. Instead of adopting a maximal viewing frame as in achievements, we view the terminal point of the achievement or its preceding culminating phase with a restricted viewing frame. In this case, an end-point is expected to be reached but need not occur (Radden & Dirven 2007). Consider the following examples:

(17) a. *The baby is falling asleep.*
b. *l-uliyyəd* *ka-yṭiħ* *bə-n-nʕas*
DEF-baby DUR-fall.IMPRF.3.SG.M PREP-DEF-sleep

In English and MA, culminating activities can be viewed with a restricted viewing frame as in (17a) and (17b), respectively. In the English example and its counterpart in MA, the focus is on the preceding culminating phase before the end-point. We expect the end-point to be reached, but has not occurred yet. That is, the baby may fall asleep but not sleep at the end. We can say, for instance, that *the baby was falling asleep when he suddenly started crying*. In this sense, the end-point described in the sentence falls outside the viewing frame; hence, the achievement may not occur.

Unexpectedly, in MA, in the absence of indicators such as adverbs, the imperfective form *ka-yənʕəs* 'He is falling asleep' means only that the activity is on progress. That is, the general context is not enough to specify whether it is a culminating activity or a habitual unless an indicator is used such as the adverb *kull saʕtayn* 'every two hours'.

The last pair to discuss in the events' types consists of acts and iterative activities. Acts are punctual atelic events. They do not prompt a culminating phase leading to a terminal point. As Radden and Dirven (2007: 190) put it, "acts come about so quickly that they are thought of as having no duration at all". To illustrate consider the following examples:

(18) a. *The baby burped.*
b. *l-uliyyəd* *tgərrəʕ*
DEF-baby burp.PRF.3.SG.M

The events expressed in the English example (18a) and its counterpart in MA (18b) are conceived as involving no time, so they are punctual. And they do not have a conclusive end-point, so they are atelic. They do not invoke a culminating phase that leads to a terminal point, so they happen quickly as they have no duration. Therefore, they are inherently bounded since they cannot be seen internally. In this respect, MA and English behave in the same way since the use of the perfective in MA necessitates the user to view the

construction with a maximal viewing frame, and so does the use of the non-progressive in English.

When acts are viewed with a restricted viewing frame, they are no more acts. They become iterative activities. Iterative activities are defined as "quick successions of punctual acts, which are conceived of as constituting a single durational event" (Radden & Dirven 2007: 182). Put it differently, when an act is being iterated in a way that is conceived as constituting a single durational event, it is then an activity that involves iteration and, for that reason, it is called an iterative activity. The typical examples in English and MA are those expressed in (19a) and (19b), respectively.

(19) a. *The baby is burping.*
b. *l-uliyyəd ka-yə-tgərrəʕ*
DEF-baby DUR-burp.IMPRF.3.SG.M

Normally, the act of burping happens so quickly to the extent that we think of it as having no time at all and so the act should be bounded in English as in example (19a) and its equivalent in MA (19b). But, when we use the progressive as in example (19a) in English and (19b) in MA, our way of viewing the event differs in that we see a lot of events happen successively and quickly to the extent that we consider them as one event that is happening progressively. The main difference between acts and iterative activities lies in the fact that in the latter we are compelled to view an iterative activity as extended in time. Since a punctual act cannot be extended in time, we interpret the event as a quick succession of acts: an activity involving iteration (Radden & Dirven 2007).

However, unlike in English, it is not the only interpretation given to the imperfective form used in iterative activities in MA. The use of the imperfective form in MA may also mean successions of indefinitely recurrent equivalent situations in different times. That is to say, it is a recurrent situation that the baby burps whenever I meet him. In the absence of indicators, MA users depends on context to opt for the right option.

4.2. Types of states

Unlike events, which involve change, states are static situations. When aspect interacts with states, it results in different types of states. States, like events, can be bounded or unbounded. When states are bounded, they are called lasting states. Lasting states are viewed with a maximal viewing frame as in (20). They are marked using the non-progressive form of verbs in English. When states are unbounded, they are called temporary states. Temporary states are seen internally as in (21). They are marked using the progressive form of verbs in English.

(20) *Ann lives with her parents.*
(21) *Ann is living with her parents.*

By contrast, in MA, it happens that sentences (20) and (21) have the same equivalent as can be seen in (22) below:

(22) *An* *ka-tʕiš* / *ʕayša* *mʕa* *walidi-ha*
Ann DUR-live.IMPRF.3.SG.F / live.AP.3.SG.F with parents-3.SG.F
'Ann lives with her parents.'/ 'Ann is living with her parents.'

Sentence (22) is ambiguous. It may mean that Ann lives with her parents indefinitely. It may also mean that she is temporarily living with her parents. As indicated earlier, the shift from the maximal viewing frame to the restricted viewing frame in MA requires the use of some elements that co-determine the aspect such as adverbs. Otherwise, general context is the only indication to the appropriate interpretation. It is worth noting that the active participle *galəs* 'sitting' cannot be used with the verb *yʕiš* 'to live' neither in the present nor in the past. However, the active participle of the verb *yʕiš* 'lives/is living', *ʕayəš* 'lives/is living', can result in the same meaning of the construction in (22) be it bounded or unbounded.

MA users use some elements to co-determine the viewing frame adopted, otherwise they rely on general context. For instance, MA speakers use adverbs of time such as *daba* 'now' as in *an ʕayša mʕa walidi-ha daba* 'Ann is living with her parents now', to clearly indicate that Ann is temporarily living with her parents.

As for general context, the sentence *an ʕayša mʕa walidi-ha* 'Ann lives with her parents' can be the answer to a question like *mʕa man ʕayša an?* 'Who does Ann live with?', therefore this sentence is the equivalent of the English sentence in (20). In this case, the question limits the scope of the answer to express a lasting state which is seen as infinite. If the answer is meant to express a temporary state, it will be the equivalent of example (21).

The use of the perfective form in states allow the user to exclusively view the state with a maximal viewing frame. This is because, the perfective form of verbs in MA is the equivalent to the simple past form of verbs in English as mentioned in section 3.

Radden and Dirven (2007) state that lasting states include three sub-types, namely indefinitely lasting states, habitual states, and everlasting states. And temporary states include two sub-types, namely temporary states, and temporary habitual states. In the following discussion of types of states in English and MA, we will address these types in terms of pairs. This is due to the fact that the types constituting each pair share almost the same characteristics. The only difference between them lies in the viewing frame adopted. There is an exception here. The last type in states category, called everlasting states, does not have an unbounded counterpart; therefore, it will be addressed based on this fact.

The first pair to address involves indefinitely lasting states and temporary states. Indefinitely lasting states are defined as "conditions which last for an indefinite time but may eventually cease to exist" (Radden & Dirven 2007: 191) as in (23a).

(23) a. *My life is exciting.*
b. *ħyat-i* *waʕr-a*
life-1.SG exciting-3.SG.F

This definition suggests that this type of states can be located in past as in *My life was exciting* (when I first got married), present as in *My life is still exciting* (these days), or future as in *My life will be even more exciting* (when I get old). Besides, they can be expressed by predicative adjectives as in (23a), participles (e.g. *He's disappointed*), prepositional phrases (e.g. *He's at school*), predicate nominals (e.g. *It is a cat*), and stative verbs (e.g. *She loves her husband*, *He hates his wife*, *He wants to be an engineer*, etc).

Indefinitely lasting states lack boundaries because they are infinite. Thus, they cannot be expressed in the progressive. Our view of states as infinite is invoked by the use of the non--progressive. The use of the non-progressive also makes us see the states as homogeneous, general and factual. For instance, the use of the non-progressive in example (23a) commits the speaker to the factuality of the state described in the sentence.

In MA, indefinitely lasting states behave in the same way they do in English as in (23b) above. The state expressed in construction in this example lasts for an indefinite time but may eventually cease to exist in any time. It suggests that it can be located in past as in *ħyat-i kant waʃra (məlli yaḷḷah tzəwwəjt)* 'My life was exciting (when I first got married)', present as in *ħyat-i mazal waʃra (had l-iyyam)* 'My life is still exciting (these days)', or future as in *ħyat-i ġadi tkun waʃra ktəṛ (məlli nəkbər)* 'My life will be even more exciting (when I get old)'.

It is worth noting that, unlike English, MA can use non-verbal construction to express indefinitely lasting states as in (23b) above. Non-verbal constructions in MA can express meaning without the use of the verb.

In English, stative verbs expressing indefinitely lasting states are used in the non-progressive form as in *He loves his wife*. By contrast, in MA, stative verbs indicating indefinitely lasting states are used in the imperfective form as in *ka-yəbġi mṛat-u* 'He loves his wife'. Even though the verb in MA is in the imperfective form, it does not indicate a temporary state. It indicates an indefinitely lasting state as in English. Our evidence on this is the adverb *daba* 'now'. If we add it to the sentence *ka-yəbġi mṛat-u (daba)* 'He loves his wife (now)', it will not mean that his love is temporary and will cease after a certain period. It implies that he did not use to love her in the past, but now he does.

When indefinitely lasting states are viewed with a restricted viewing frame, they become temporary states as illustrated in (24a).

(24) a. *We are sitting in the garage playing cards.*

b.

ṛa-ħna	*galsin*	*fə-l-gaṛaj*	*ka-llə*ʕ*bu*[4]	*karṭa*
there-we	sit.AP.3.PL	in-DEF-garage	DUR-play.IMPRF.1.PL	cards

This is marked by the use of the progressive *are sitting*. Likewise, the MA equivalent of (24a) expressed in (24b) is a temporary state. The restricted viewing frame in the MA exam-

[4] The first person imperfective prefix *n* assimilates to a following liquid of the stem. In this example, it changes into /l/ because of the contiguous /l/ segment. When the following segment is an /r/, as in *ka-n-rəkbu* 'we ride', it is realized as /r/, viz. *ka-r-rəkbu*.

ple is imposed by the use of the active participle *galsin* 'sitting'. However, things look different when we render the MA temporary state *ṭumubilt-i galsa ka-təjməʕ l-ġəḅra fə-l-gaṛaj* into English. The English equivalent of the MA temporary state is the indefinitely lasting state *My car sits in the garage collecting dust*. This inconsistency between English and MA can be justified by the fact that in MA, it is impossible to imagine a situation in which the car is indefinitely collecting dust as in English. This is probably because in MA, the active participle *galsa* 'sitting' imposes an internal view on the described construction. In addition, the use of the imperfective form of the verb, *ka-təgləs* 'is sitting' in this case, will make the construction sound odd. This is probably because the car cannot perform a human act as sitting. By contrast, the use of the imperfective verb form *ka-ngəlsu* 'we are sitting' in (24b) will result in a fully acceptable construction meaning that we are used to sitting in the garage playing cards. In this case, the MA sentence in (24b) is an indefinitely lasting state.

In English, many states may be described adopting a maximal viewing frame or a restricted viewing frame and, as might be expected, convey different meanings as in *How do you like your job?* and *How are you liking your job?*, respectively. However, it is not the case in MA. The equivalents of the English examples, be it viewed with a maximal or a restricted viewing frame, are expressed using the imperfective form of the verb in MA as in *kifaš ka-tji-k xdəmt-ək?* 'How do you like your job?'/ 'How are you liking your job?.'

In English, the specific meaning each sentence conveys is determined by its aspect and contextual cues. For example, the speaker of the question *How do you like your job?* assumes that I have formed an opinion about my job, whereas the speaker of the question *How are you liking your job?* makes no such assumption. This question may be paraphrased as meaning 'By the way, have you already formed an opinion on your job?'. However, in MA, both the equivalent of the two above English examples *kifaš ka-tji-k xdəmt-ək?* makes no assumption to whether the speaker has formed an opinion or not yet. To assume that the speaker has already formed an opinion, he uses the perfective which is the equivalent of the past in English as in *kifaš jat-ək xdəmt-ək?* 'How did you like your job?'

In English, the infinite view invoked by the non-progressive sentences makes us see the states as homogenous, general and factual, while the internal view invoked by the progressive sentences makes us see the states as heterogenous, specific and episodic (Radden & Dirven 2007). By contrast, in MA the infinite view invoked by the perfective sentences makes us see the states as homogenous, general and factual, while the internal view invoked by the imperfective sentences makes us see the states as heterogenous, specific and episodic.

The difference in meaning between these modes of viewing shows up more strikingly in the context of increase such as *I like my job better and better everyday* and *I'm liking my job better and better*. In the former example, a person's emotional state of liking something usually lasts indefinitely. In this case, the non-progressive aspect is the expected form to use, which conveys a factual statement about an increase in liking. In the latter example, the restricted viewing frame allows the speaker to focus on the incremental phase of liking as they increase from day to day. The restricted viewing frame is not only used to show increases in emotion but also to express changing states as in *He is resembling his father more and more*.

By contrast, in MA it is not the perfectivity or imperfectivity of the sentence which makes the difference between a person's emotional state of liking something that usually lasts indefinitely or focusing on the incremental phase of liking as they increase day after day. In fact, the imperfective is used to denote both meanings as illustrated by the MA counterparts of the English sentences *I like my job better and better everyday* and *I'm liking my job better and better* which can be rendered to MA as *ka-təʕjəb-ni xdəmt-i kull nhaṛ ktəṛ* and *xdəmt-i ġadiya ka-təʕjəb-ni kull nhaṛ ktəṛ*[5], respectively. In fact, the use of some linguistic cues which makes the difference in meaning between these two examples such as the word *ġadiya* 'going'. The word *ġadiya* 'going' is used in the latter example to indicate the progression in the increase of liking. This linguistic cue is also used with changing states as in *ġadi ka-yəšbəh lə-ḅḅa-h ktəṛ wu-ktəṛ* 'He is resembling his father more and more', to indicate that the changing of the state is in progress.

In English as well as in MA, states that involve intentionally acting humans as *You're rude* and its MA non-verbal counterpart *nta xayəb* may allow a temporary reading *You're being rude* and its MA counterpart *ġadi ka-təxyab*. This is not surprising since humans are able to change the world around them. The only difference between English and MA is that in English the shift from an indefinitely lasting state to a temporary state is allowed by the use of the progressive in the temporary state. However, in MA, the shift is allowed by the use of some clues such as the active participle *ġadi* 'going' in the temporary state.

The second pair of states' types to address involves habitual states and temporary habitual states. Habitual situations are not states. They are "successions of indefinitely recurrent equivalent situations" (Radden & Dirven 2007: 193). In other words, habitual states are individual events that recurrently happen and are seen in their entirety, and hence are perceived as a single situation. Thus, they are multiplex. A good illustration of this type is the sentences expressed in examples (25a) and (25b).

(25) a. *My sister wears high-heeled shoes.*

b.

xt-i	*ka-təlbəs*	*ṣəbbaṭ*	*ṭ-ṭalu*
sister-1.SG	DUR-wear.IMPRF.3.SG.F	shoes	DEF-high-heel

The behaviour of wearing high-heeled shoes is habitual since it is done regularly. Habitual states show specific grammatical behaviour. In the past, they are marked by the use of *used to*. Present and past habitual situations can be expressed using *keep V-ing*, and the use of *now* to indicate the recent beginning of a habitual state.

In MA, the equivalent of construction (25a) is the one expressed in example (25b). It is ambiguous. It may mean that my sister is wearing high-heeled shoes, or she habitually wears high-heeled shoes. As indicated earlier, in the absence of elements to co-determine the kind

[5] Even though the combination of *ġadi* with *ka-* is frequent among Moroccan speakers, it has not been discussed in literature at least to our knowledge, including Harrell (1962). When this combination is used, it implies the intensification of the action in progress. That is, the longer the action persists, the more intense it becomes as in *ṛa-h l-qaḍiyya ġadiya ka-təkbəṛ* meaning 'The matter is getting more serious!'.

of viewing frame adopted, MA speakers depend on contextual clues and discourse cues to differentiate between the two.

Both in English and MA, habitual states can be observed in nature as well, but rarely as in *The sun rises in the east*. This example and its MA equivalent *š-šəms ka-təšrəq mə-l-məšriq* both mean that the sun rises in the east. Unlike (25b) in MA, this example is not ambiguous because it is bounded by invoking the domain of space *l-məšriq* 'the east'.

In English as well as in MA, habitual situations are multiplex. They are typically composed of individual events that are seen in their entirety and synthesized into a single situation. In such type of situations, we lose sight of interruptions between the individual events and perceive them as forming a homogenous, lasting state. Radden and Dirven (2007), claim that in some other languages habitual situations are grouped with events.

Habitual states show specific grammatical behavior in English. Habitual situations that occurred in the past are marked by *used to* as in *Mary used to work in a pub*, and are marked by the simple present form in the present as in *She works in a pub*. Present and past habitual situations may be also expressed by *keep v-ing* as in *She keeps applying for new jobs* and *She kept applying for a job*, respectively. The recent beginning of a habitual state may be indicated by *now* as in *She now works at McDonald's*.

Likewise, in MA, habitual acts show specific grammatical behaviour. In general, they are marked by the use of *kan* plus *ka-* plus the imperfective form of the verb in the past as in *xaṭib-ti kant ka-təxdəm f-baṛ* 'My fiancée used to work in a pub', and *baqi* 'keep' plus *ka-* plus the imperfective form of the verb in the non-past. Like in English, in MA, the recent beginning of a habitual state may be indicated by *daba* 'now' plus the imperfective form of the verb or some exceptional active participles such as *xəddam* as in *ṛa-ha ka-təxdəm/ xəddama daba f-makdunaldz* 'She now works at McDonald's.'

It is noteworthy that for verbs, such as *dxəl* 'to enter', whose durative form signifies only habitual or repetitive actions but not progressive ones, the active participle imparts a progressive meaning, as exemplified by *huwa daxəl* meaning 'He is entering.' In contrast, the active participle of other verbs, which do not typically take on a progressive form in English, such as *fhəm* 'understand', acquires a durative meaning, as demonstrated by *huwa fahəm* 'He understands' (Harrell 1962: 178).

In English as well as in MA, the habitual nature of a state can also be highlighted by means of the frequency adjuncts as *always*, *all the time*, *continuously*, *constantly* in English, and the frequency adjunct *daymən* 'always', *kull maṛṛa* 'every time' in MA as equivalent to all the mentioned adjuncts in English. These adjuncts emphasize the repeated occurrences of the event.

As in English, in MA, past and incipient habitual states may be combined as opposites, as in *She used to work in a pub, but now she works at McDonald's* and *kant ka-təxdəm f-baṛ, wa-lakin daba ka-təxdəm f-makdunaldz*, respectively.

The unbounded counterparts of bounded habitual states are called temporary habitual states. While habitual states are viewed with a maximal viewing frame, temporary habitual states are viewed with a restricted viewing frame. Radden and Dirven (2007) indicate that the temporariness of the habitual state may suggest that it has just recently come into existence as in *She is working in a pub*. Frequency adjuncts may be used with temporary habitual

states as in *My husband is constantly getting into trouble*. When it is the case, the temporary habitual states invite inferences of irritation on the part of the hearer.

(26) a. *Mom is working at the Ministry of Finance (for the moment).*

b. *ṃṃ-i* *ka-təxdəm* / *xəddam-a* *f-wizart*
mother-1.SG DUR-work.IMPRF.3.SG.F / work.AP-SG.F in-ministry

l-maliya *(had* *s-saʕa)*
DEF-finance this DEF-time

By contrast, in MA, it is the use of adverbs that allow MA speakers to shift from a habitual state to a temporary habitual state as in (26b). The use of the durative *ka-* plus the imperfective form of the verb in addition to the adverb *had s-saʕa* 'at this time' specifies the construction in (26b) as unbounded. The restricted viewing frame adopted in this construction suggests that the speaker's mother is just temporarily working in the ministry, and she may move to another sector or stop working anytime. In the absence of the adverb *had s-saʕa* 'at this time', there will be a shift in the viewing frame. Consequently, it will be viewed with a maximal viewing frame which results in considering (26b) a habitual state.

As in English, the use of the frequency adjuncts in MA implies irritation. But they do not impose viewing the construction with a restricted viewing frame as they do in English as in *ṛajl-i dayмən ka-yəjbəd ṣ-ṣḍaʕ* 'My husband always gets in trouble'.

The last type to discuss in types of states is called Everlasting states. The situations belonging to this type are true all the time and do not change. Thus, they are solely expressed in the present, but not in the past, or the future, nor in the progressive aspect (Radden & Dirven 2007). A typical example of this type is (27a).

(27) a. *Oil floats on water.*

b. *z-zit* *ka-ṭṭləʕ* *fuq* *l-ma*
DEF-oil DUR-rise.IMPRF.3.SG.F on DEF-water

The state expressed in this example is a physical law. Thus, it is true in all situations. All the states that have timeless validity by their nature belong to this type. The English example (27a) implies that whenever oil is mixed with water, oil floats on water. In this case, it is seen with a maximal viewing frame. This is marked by the use of the non-progressive form of the verb in this example.

Likewise, the MA example (27b) has the same interpretation as its English counterpart expressed in (27a). In MA, everlasting states are marked by the use of the durative *ka-* plus the imperfective form of the verb. The use of the imperfective does not make the construction ambiguous. This is because there is only one valid interpretation which is that the speaker determines himself to the everlasting truth of the proposition expressed in the construction. Non-verbal constructions can also be used to express everlasting sates in MA as in *lə-ʕyalat huma l-jins lə-qwiy* 'Women are the stronger sex.'

In English as well as in MA, typical examples of everlasting states are definitions, eternal truths, generalizations that are claimed to be true, and proverbial truths. All of these everlasting states have timeless validity by their very nature.

5. Conclusion and implications

To conclude, aspect allows language speakers to view constructions with a maximal or a restricted viewing frame. These two types of the viewing frame are evoked by the grammatical structures used in sentences. This study shows that aspect is handled differently in English and MA. In English, constructions which are viewed with a maximal viewing frame are marked by the use of the non-progressive, while constructions which are viewed with a restricted viewing frame are marked by the use of the progressive. The shift from one viewing frame to another results in the change from one situation type to another. By contrast, the use of the perfect in MA necessitates the user to view the construction with a maximal viewing frame. However, when the imperfective form of the verb is used, the construction is ambiguous. It may mean that the user views the event with either a maximal or a restricted viewing frame. In the absence of elements that co-determine the aspect in MA, general context is the only indication of the appropriate interpretation.

The difference in aspect system in English and MA may result in difficulties in language acquisition. If a native speaker of MA wants to learn English, or vice versa, they may face difficulties in terms of grammatical structure as well as semantic interpretation. For instance, a native speaker of MA may use the same structure to express both a progressive as well as a non-progressive situation. He may use the present continuous to refer to an action happening now or for an action that habitually happens. He may also use the present tense to refer to a situation that is on progress or to a habitual situation. This is due to the fact that the imperfective in MA can be used to view a situation with a maximal as well as a restricted viewing frame. For the same reason, a native speaker of English may get confused in what the appropriate interpretation of MA construction using the imperfective form of the verb is. It seems that both native speakers of MA and native speakers of English may not face any difficulties in learning English non-progressive form of verbs in the past and MA perfective form of verbs, respectively. This is because the equivalent of the English simple past structure is the perfective structure in MA. Accordingly, this paper is of importance to language acquisition researchers interested in the acquisition of aspect and applied linguistics researchers interested in having insights about aspect to find the effective way to teach this grammatical structure.

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A new consonant-vowel architecture: Japanese borrowings from European languages from the viewpoint of Complexity Scales and Licensing

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Japanese has borrowed lexical items from European languages for centuries, mostly for historical and cultural reasons. Phonological analyses concerning the process of importing words from various languages are numerous. Syllabic structures of Western languages usually differ from those in Japanese and this difference manifests itself mainly in the lack of many consonant groups in the latter. In this paper, a number of examples will be provided so as to show how consonant clusters from donor languages undergo decomposition in Japanese loanwords from European languages, also referred to as *gairaigo*. The phonological model of Complexity Scales and Licensing is employed here with a view to demonstrating precisely why the process of cluster disintegration usually happens, which enforces epenthetic vowels, and why it is at times inhibited.

Keywords: borrowings, consonant clusters, empty nuclei, decomposition, government and licensing, epenthesis

1. Introduction

Borrowing from language to language is common in the contemporary world of sound systems. The literature on how, when, where and why languages borrow words from other tongues is very rich. What deserves attention is the details, which may be cultural, semantic, syntactic, orthographic, morphological or phonological. The phonotactics of what can be possible regarding consonant clusters is described by e.g. Algeo (1978). What is aimed at now is to demonstrate and discuss how consonant clusters from European languages[1] behave in a language where such groups are most unwelcome.

[1] A word of explanation seems in place here. We are not considering Indo-European languages as such, since these embrace also many languages of India and the Middle East. Those are not included here.

Loanword adaptation is a complicated matter. It is even more complex when two languages, the donor/source (L1) and the borrower/target (L2) are very different. Barring loans from Chinese and other oriental tongues, the phonological system of Japanese has incorporated a great number of lexical items from Western languages over the past few centuries. These loanwords have come mainly from English,[2] but quite a few other European tongues need not be neglected as donors.

The medium to facilitate the ensuing analysis will be the model of Complexity Scales and Licensing (Cyran 2010; Jaskuła 2006, 2014, 2016). It is a theory of representations based on Government Phonology (Kaye & Lowenstamm & Vergnaud 1990).

The organization of this article is as follows. Firstly, a presentation of the basic assumptions of Complexity Scales and Licensing (CSL) will be offered, along with repair strategies which it offers in word adaptation. Secondly, the phonotactics of Japanese and adaptation methods will be briefly described. Thirdly, a body of data including borrowings from European languages will be presented. Fourthly, a CSL analysis of changes which Western words undergo once entering the lexicon of Japanese will be proposed.[3] Finally, conclusions will be drawn.

2. The theoretical model of CSL

2.1. Basic assumptions and mechanisms

The model employed in this paper is that of Complexity Scales and Licensing (Cyran 2010), a development of Government Phonology (Kaye 1990; Kaye & Lowenstamm & Vergnaud 1990; Charette 1991; Harris 1990; etc.). Similarly to the original framework, CSL adopts the stance that lateral governing relations are present in phonology. It is postulated, in principle, that two mechanisms, that is government and licensing, are cross-linguistically responsible for the shape of words as well as for phonological processes that can be observed in the world's languages. Moreover, the assumed universal structure is that every word begins with an onset and ends with a nucleus. Both onsets and nuclei can be empty. Finally, parameters are language-specific (ON or OFF), while government and licensing relations are universal.

However, it must be mentioned that CSL is derived more closely from the Strict CV model proposed by Lowenstamm (1996). Another major theory that also stems from Strict CV is the Lateral Theory of Phonology by Scheer (2004). Unlike Scheer, who claims that government 'spoils' the health of a segment, while licensing 'supports' the melodic material and both these mechanisms operate from right to left, Cyran (2010) assumes that government

[2] Tomoda (1999: 232) mentions about 80%. The first loanwords probably came from Portuguese (Kono 2001) and Dutch (Zhang 2019).

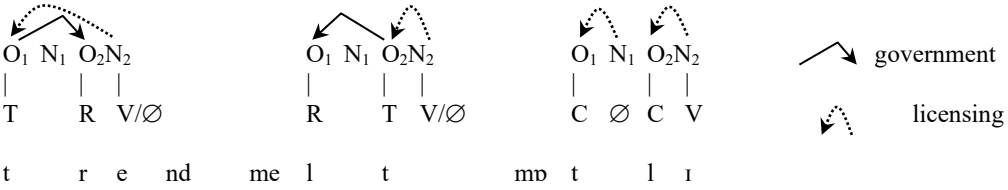
[3] In this paper, only the decompositions of Western consonant clusters are going to be discussed. Many other issues which also concern Japanese word adaptation, e.g. replacements of foreign consonants or vowels, are discussed elsewhere, e.g. Kay (1995), Vance (2008), Daulton (2008), Irwin (2011), Labrune (2012), Þórdísarson (2016), Zhang (2019).

depicts asymmetric relations only between consonantal segments in both directions. No government holds between nuclei whereas licensing is a force that is provided to onsets by the following nuclei in order to make government possible. Both these devices are responsible for the architecture of words, in whatever language they happen to occur. In any event, all the post GP models save the spirit of government and licensing, at the same time postulating modifications in the ways that these mechanisms work and being faithful to the CVCV structure.

The CSL model of phonology has been chosen in this analysis for a reason. The reason is that it can precisely predict the structures of words using the simplest assumptions concerning complexity, government and licensing.

Let us now focus on those assumptions of CSL which will have a bearing on the analytic part of this paper. Above all, every onset is licensed by the following nucleus. Moreover, when consonants which stand side by side enter into inter-onset (IO) governing relations, these relations are sanctioned by the nuclei that follow such consonant clusters via the so-called government-licensing, i.e. a licence to govern (Charette 1991).

Consider the following diagrams in which IO governing relations are depicted (R^4 = resonant/sonorant, T = obstruent/ 'true consonant', C = any consonant, V = vowel/schwa, ∅ = empty nucleus). (T) always governs (R) but not vice versa:



These diagrams should be read in the following fashion. (1a) represents an obstruent-sonorant cluster (where the resonant is usually a liquid or a glide, rarely a nasal). This structure is traditionally referred to as a 'branching onset', represented by the English word *trend*. Here, the obstruent (T) governs the resonant (R) via a rightward inter-onset relation (RIO). In (1b) we can see a reverse situation, a leftward inter-onset relation (LIO), as illustrated by English *melt*, where a sonorant is followed and governed by an obstruent, which may be called a 'coda-onset' group in other phonological models.[5] What requires special attention is that in both (1a) and (1b) the nucleus (N_1) is allowed by IO relations to remain empty. In other words, it is invisible to phonology ('locked') and plays only a formal role in the ONON sequence, unlike the empty nuclei represented by ∅.[6]

The third representation (1c) shows two consonants which establish no governing

[4] In geminates, the symbol (R) also represents the 'coda', the first part of a double consonant, while the 'onset' is the part symbolized by (T).

[5] Let us note that [s]+stop clusters are perceived by Standard GP as 'coda-onset' groups (Kaye 1990), while by CSL as LIO relations, even word-initially.

[6] In another approach, namely VC, such nuclei are called 'buried' (Szigetvári 1999).

relation, e.g. English *motley*. The reason why there is no RIO here is that [tl] never form a branching onset word-initially in English (Gussmann 2002). What follows from this is that IO relations are geared to the language in which they appear. [tl] is a well-formed branching onset in Polish, e.g. *tlen* – 'oxygen'. Thus, apart from the type of consonants, also language-specific parameters are of importance. In English there is a constraint on homorganic 'branching onsets', e.g. *[tl, dl, pw, bw], while in Polish there is no such restriction.[7]

Another word should also be said about empty nuclei. A word-final empty nucleus (FEN) is allowed to stay silent by parameter. Many languages (e.g. English, Polish, German, Irish, etc.) 'switch' this parameter ON and words may end in consonants in these systems. In other languages (e.g. Italian, Japanese, Hawaiian, etc.) this parameter is OFF and all words must end in vowels. As for word-internal empty nuclei (IEN), these may remain mute inside an IO relation, e.g. (N_1) in both (1a) and (1b). In CSL there are no lateral governing relations between nuclei. When an empty nucleus is outside such a relationship, as (N_1) in (1c), the universal No Lapse constraint, borrowed from Rowicka (1999) and represented as *∅_∅, is at work. This constraint ensures that no two empty nuclei can occur in a row.

Now let us turn to licensing. In (1a) the RIO relation is government-licensed by the nucleus (N_2). This government-licensing (GL) is indirect (difficult), which means that the GL nucleus is distant from the governor. In (1b) the LIO is also government-licensed by (N_2), the difference being in that the GL nucleus is close to the governor and this type of GL is direct (easy). Finally, in (1c) there is no GL but a simple type of licensing provided by any nucleus to the preceding onset. Which type of licensing nuclei can deliver is parametric/language-specific.

What needs to be mentioned now is the role of vocalic material attached to the nuclei. The nucleus (N_2), which provides government-licensing to both RIO (1a) and LIO (1b), may either be filled by a vowel or remain empty (with no melody), depending on the phonological system. Generally, full vowels are better licensers than empty nuclei. In other words, the government-licensing potential of nuclei is scalar. In a number of languages, such a nucleus may be empty word-medially, e.g. [trfat͡ɕ] in ***tr****wać* – 'to last' (Polish) and word-finally [bəʊlt∅] *bo****lt*** (English), while in others it must be filled with a vowel, e.g. [pjetra] *pie****tr****a* – 'stone' (Italian). The Italian case may be contrasted with Polish [vʲatr∅] *wia****tr*** – 'wind'. FEN in Polish can government-license 'branching onsets', while in Italian that is impossible and these nuclei must be filled with vowels. Additionally, in languages like Hawaiian, empty nuclei cannot license either single onsets or consonant groups. For example, the English *brush* is realized as [palaki] in Hawaiian, which means that double epenthesis needs to occur.

What also matters is the structures of segments that can govern and those which are governed. In both standard GP and CSL, the structures of segments are expressed in terms of the so-called elements (Harris 1990, 1994; Backley 2011). These are acoustic and articulatory primes whose presence or absence contributes to a segment's governing force. The elemental makeup of a segment may differ from language to language. The elements which are necessary here are shown below (based on Harris 1994 and Backley 2011):

[7] Such clusters are not common, but [tl] can be found word-medially and finally in Nahuatl (Aztec), e.g. [atlatl] – 'spear-thrower'.

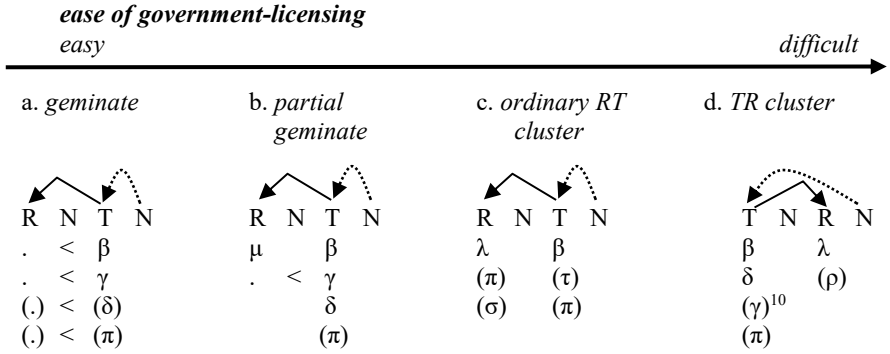
(2)

{U} – labiality[8] {U} – velarity {A} – coronality {h} – noise {N} – nasality
{ʔ} – occlusion {L} – low tone/ voicedness {H} – high tone/ voicelessness/ aspiration

For example, therefore, the English [t] would include {A, ʔ, h, H}, while [n] would be made of {A, N}. Moreover, [b] would be composed of {U, ʔ, h}, whereas [r] of the element {A} alone.[9] Summing up, the more elements a segment includes, the better governor it is (Harris 1990). CSL assumes complexity scales: more complex consonants govern less complex ones. The more primes a consonant needs to govern, the more difficult the governing relation is (governee complexity) and the fewer primes the governor has, the more difficult the governing relation (governor complexity).

The final part of the theoretical presentation is the diagram below, based on Cyran (2010: 98, 103), where the ease of government-licensing is depicted.

(3)



This scale shows that the element complexity of the governee (R) in (3a) may be null, since all the primes are included in the governing (T) position and are spread to (R). Thus, the ratio is always (2:0, 3:0 or 4:0). This makes the government between (T) and (R) extremely easy and the government-licensing by the following nucleus also unproblematic. Moreover, the fewer elements a governing nucleus must government-license, the better. A partial geminate in (3b), that is, a cluster habitually composed of a nasal followed by a homorganic obstruent, is also fairly easy as regards government-licensing since one or more elements are provided by the governor (T), the ratio being (3:1 or 4:1). An ordinary RT group in (3c) is more difficult to government-license, because few, if any, elements are shared between (R) and (T) and a complexity slope may not be present (T and R are equally complex). For instance, the

[8] The element {U} may stand for two places of articulation. When underlined ('headed'), i.e. {U}, it represents labials, while the 'headless' {U} stands for velars. For more details, see e.g. Kijak (2017).

[9] Obviously, the elements for vowels are also part of the theory. However, these are not important for this analysis.

[10] In this diagram, the phonological elements are represented by Greek characters, which are purely symbolic, so as to illustrate element complexity. The maximum number of primes for T consonants is 4. Let us note that between every RT or TR there is always N.

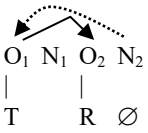
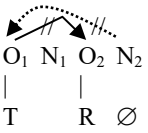
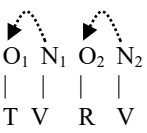
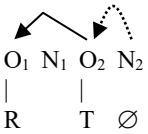
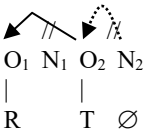
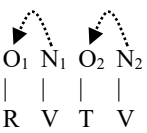
cluster [kt] in the English word [ækt] *act* displays a so-called sonority plateau and the number of elements is the same under both (R) and (T). Finally, the TR group in (3d) is the most difficult structure to government-license in view of the fact that the government-licensing provided by the following (N) here is indirect, as compared to the three structures shown in (3a-c). Therefore, there is an implicational universal: languages with TR clusters also have RT clusters, but the reverse is not true as TR is a much more extreme cluster than RT.[11]

Regarding the number of elements under (T) and under (R), the greater the complexity slope between the governor and the governee (i.e. the more elements in (T) and the fewer in (R)), the easier the cluster is to be government-licensed. Thus, in English the complexity ratio between [t] and [r] in *try* is (4:1). If this differential were, say (4:3), e.g. [kn], it would not be tolerated by many languages, including English. Let us also recall that between any (R) and (T) the empty nucleus is licensed by the IO relation to stay mute. Therefore, CSL adopts complexity: the more complex consonants govern the less complex ones. Government-licensing is also scalar: the ease of government depends on the potential of the licensing nuclei and the number of elements in consonants. As depicted under (1) and below, the nuclear potential also matters – vowels/schwas can government-license more than empty nuclei.

2.2. Typical adaptation strategies predicted by CSL

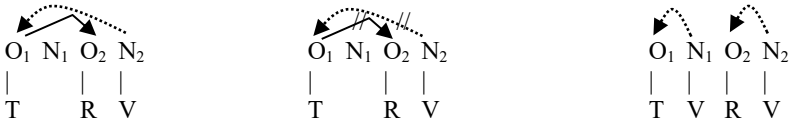
When we turn to word adaptation and structural differences between borrowed words in L1 and L2, CSL offers a few repair strategies which are relevant to the present analysis. In most languages of Europe, IO relations occur. In target languages from outside Europe, these are frequently decomposed, which may result in a few adaptation strategies, the most typical of which are graphically represented below:

(4)

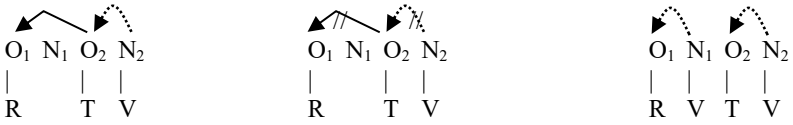
DONOR LANGUAGE >	TARGET LANGUAGE >	RESULT
a. *RIO_#*	*lack of GL*	*double epenthesis*
		
b. *LIO_#*	*lack of GL*	*double epenthesis*
		

[11] Interestingly, although geminates are the easiest consonant groups to government-license, they are absent from the majority of the world's languages, which is most probably parametric. Parameter GEMINATES = OFF.

c. *RIO* *lack of GL* *epenthesis*



d. *LIO* *lack of GL* *epenthesis*



The adaptation strategies shown above result from the differences between what is allowed by L1 and L2 in terms of word architecture. In (4a) and (4b) we observe word-final RIO ('branching onset') and LIO ('coda-onset') relations, respectively, which are found in the donor languages. The lack of government-licensing (//) in the target language leads to the break-up of both original clusters and IO relations. Let us recall that in many languages, including Hawaiian, Italian and Japanese, all words must end in vowels, i.e. FEN are not licensers of anything consonantal. As a result, vowel epenthesis occurs in both (N_1) and (N_2). The representations in (4c) and (4d) depict analogical relations, this time word-medial or initial. Given that no GL is provided even by a full vowel under (N_2), the IO relations are undone and an epenthetic vowel surfaces under (N_1). What is also important to note is that the CVCV or ONON structure is universal and whatever consonant configurations appear on the surface in whatever language, the skeleton is stable. Whenever vowel epenthesis occurs, no skeletal restructuring is needed as the nuclear slot is always there.[12]

3. Japanese and borrowings

3.1. Sounds and words of Japanese

The vocalic system of Japanese includes five short vowels, close to cardinal (Vance 2008). Five long vowels also occur there and length distinction is contrastive, e.g. [hiɾɯ] – 'leech' vs. [hiːɾɯ] – 'heel'. Japanese does not observe reduced vowels, also called schwas [ə].[13]

[12] Other repair strategies, such as consonant loss, also occur in L2. In the examples presented here, this option is irrelevant.

[13] I am very grateful to Dr. Mayuki Matsui and Dr. Masanori Deguchi for verifying my data. My consultants do not agree on accepting the unrounded back vowel [ɯ] as comparable to schwa, which was suggested by one of the reviewers.

Voicing in single consonants is distinctive (Itô & Mester 1986; Vance 2008), e.g. [kɑ] – 'mosquito' vs. [gɑ] – 'moth', although in the contemporary (especially acoustic) literature the question of whether or not Japanese is a truly voicing language frequently appears on acoustic grounds (e.g. Vance 1982; Kitahara & Tajima & Yoneyama 2019). Nonetheless, the possible fortis vs. lenis distinction is irrelevant herein, since in the case of single obstruents contrast is always present. Finally, a single [p] is normally disallowed in the native vocabulary (Itô & Mester 1995).

Syllable structure-wise, Japanese is basically a CV language, where consonant clusters are rare (Yoshida 1996). In traditional terms, there are no branching onsets in it, while coda-onset groups must be made of nasals followed by homorganic obstruents, e.g. [kaŋkei] – 'relation'. A coda-onset group may also be occupied by a voiceless geminate, e.g. [katːe] – 'buying'. Voiced geminates are tolerated exclusively in loanwords. It is also worth noting that, from the perspective of CSL, Japanese allows only these consonant groups which are easiest to government-license, geminates in (3a) and partial geminates in (3b). Finally, every word ends in a vowel, e.g. [kɯː] – 'void', or the 'moraic nasal' [ɴ], e.g. [hoɴ] – 'book', whose consonantal or vocalic properties are debatable.[14]

3.2. Diachronic constraints and loanword strategies in Japanese

As observed by Itô & Mester (1995, 1999), the Japanese language has a lexicon made of at least three historically-determined strata. The Yamato layer refers to the most basic and ancient native vocabulary. Sino-Japanese embraces usually technical words borrowed from Chinese in the Middle Ages. The third stratum includes loanwords, also known as *gairaigo*, which may be assimilated, partly assimilated or unassimilated. Their arrival began in the second half of the sixteenth century, at first from Portuguese.

In the table below (adapted from Itô & Mester 1995, 1999), three main constraints on two-consonant combinations are presented. The first forbids voiced geminates, e.g. *[gː], and clusters involving nasals and voiceless obstruents, e.g. *[nt]. The second one still bans voiced geminates in the language, allowing nasals followed by voiceless stops, while the third shows no restrictions:

(5)

constraints	no voiced geminates	no nasal+voiceless plosive clusters
Yamato	e.g. *Nippon* – 'Japan' vs. **bb*, **dd*, **gg*	e.g. *hunde* – 'brush' vs. **mp*,**nt*, **ŋk*
Sino-Japanese	e.g. *katte* – 'buying' vs. **bb*, **dd*, **gg*	e.g. *sampo* – 'walk'
Foreign/gairaigo	e.g. *beddo* – 'bed'	e.g. *banku* – 'bank'

[14] The 'moraic nasal' [ɴ] is usually viewed as phonetically indistinguishable from the nasalized back unrounded vowel [ɯ̃] and its consonantal properties manifest themselves only if it is followed by an obstruent in 'coda-onset' groups. See e.g. Yoshida (1996, 2001, 2003) or Youngberg (2020, 2021) for more detailed analyses.

Historically speaking, as observed by Itô & Mester (1995, 1999), Kawahara (2005), Rice (2006) and Labrune (2012), voicing contrast in Japanese geminates was not obviously present at the outset (Yamato). Nor was there clear voicing difference in nasal-stop groups. Voicing was treated more as a prosodic property than segmental. There were no minimal pairs involving clusters, so voicing opposition was also frequently absent from orthography in the historical literature. Specifically, geminates were originally voiceless, while nasal-obstruent groups were voiced. Apparently, that was the only voicing opposition in Yamato which concerned groups of consonants. Perhaps that contrast was not purely laryngeal, because geminates were structurally different from partial geminates. In Sino-Japanese, however, the circumstances began to change when clusters composed of nasals and voiceless obstruents started to enter Japanese. Seemingly, the laryngeally agnostic Japanese system had to react to the influx of loanwords from Chinese in which voicing in consonant groups was phonologically crucial.[15]

Regarding Japanese adaptation strategies, these mainly follow the constraints depicted above. Branching onsets, non-homorganic coda-onset groups and word-final consonants are banned and the situation is resolved by vowel epenthesis, e.g. [brʌʃ] > [bɯɾɑɕi] – 'brush', while coda-onset sequences made of nasals and homorganic obstruents are allowed, e.g. [taŋgo] (Spanish) > [tɑŋgo] – 'tango'.

Another approach is the gemination of original single stops after short vowels, especially in Western monosyllables, e.g. [nap] > [napːɯ] – 'table cloth' (French) and [bed] > [bedːo] – 'bed'. This is to a certain extent debatable, though. Rice (2006: 16) observes that the gemination of [p, t, k] is fairly regular (about 98%), while the doubling of [b, d, g] is rather irregular (less than 50%), so the English *bed* may also be pronounced as [betːo] by about 50% of speakers. Moreover, sometimes gemination does not occur, e.g. [pʌb] > [pɑbɯ] – 'pub'. Thus, we may speak of fluctuation or free variation here. The reasons for geminating the original L1 singletons are vague and will be addressed below.

3.3. Loanwords from European languages

The following examples show Japanese borrowings from a few European languages[16] such as (E)nglish, treated as default, and also (D)utch, (F)rench, (G)erman, (P)ortuguese, (R)ussian and (S)panish.[17] The first set of borrowed items includes words which display two or three consonants in a row in the source languages. These are regularly decomposed in Japanese.

[15] This is how far my understanding goes. For more information see, e.g. Itô & Mester (1995, 1999), Kawahara (2005), Rice (2006) and Labrune (2012).

[16] https://www.sljfaq.org/afaq/gairaigo.html; Tomoda (1999), Menton (2001), Irwin (2011), Þórdísarson (2016).

[17] Menton (2001: 28) argues that very few Spanish borrowings are now present in Japanese.

(6) Western clusters in Japanese

E/D/F/G/P/R/S	Japanese	*Spelling* (E)/*Gloss*	Change		
a. TR initial and medial clusters					
[**bl**ik]	[bɯɾici]	'tin' (D)	[bl]	>	[bVɾ]
[**br**ʌʃ]	[bɯɾɑɕi]	*brush*	[br]	>	[bVɾ]
[**dr**es]	[doɾesɯ]	*dress*	[dr]	>	[dVɾ]
[**gl**ɑs]	[gɑɾɑsɯ]	'glass' (D)	[gl]	>	[gVɾ]
[**gɹ**upə]	[gɯɾɯpːe]	'group' (G)	[gr]	>	[gVɾ]
[**pl**ʌs]	[pɯɾɑsɯ]	*plus*	[pl]	>	[pVɾ]
[**pr**əʊ**gr**æm]	[pɯɾogɯɾɑmɯ]	*program*	[pr]	>	[pVɾ]
		and	[gr]	>	[gVɾ]
[**tr**oika]	[toɾoikɑ]	'troika' (R)	[tr]	>	[tVɾ]
[**kr**us]	[kɯɾosɯ]	'cross' (P)	[kr]	>	[kVɾ]
[**kl**ʌb]	[kɯɾɑbɯ]	*club*	[kl]	>	[kVɾ]
[**fl**ameŋko]	[ɸɯɾɑmeŋko]	'flamenco' (S)	[fl]	>	[ɸVɾ]
[**fr**asku]	[ɸɯɾɑsɯko]	'flask' (P)	[fr]	>	[ɸVɾ]
[**θr**il]	[sɯɾiɾɯ]	*thrill*	[θr]	>	[sVɾ]
[ɪŋ**gl**ɪʃ]	[iŋgɯɾiɛːɯ]	*English*	[gl]	>	[gVɾ]
[vi**dr**u]	[biːdoɾo]	'glass' (P)	[dr]	>	[dVɾ]
[ə**pr**əʊtʃ]	[apɯɾoːt͡ɕi]	*approach*	[pr]	>	[pVɾ]
[weɪ**tr**əs]	[uweitɯɾesɯ]	*waitress*	[tr]	>	[tVɾ][18]
[sa**kr**amentu]	[sɑkɑɾɑmento]	'sacrament' (P)	[kr]	>	[kVɾ]
[i**kr**a]	[ikɯɾɑ]	'caviar' (R)	[kr]	>	[kVɾ]
b. *s*C(C) initial[19]					
[**sp**iːk]	[sɯpiːkɯ]	*speak*	[sp]	>	[sVp]
[**ʃt**ok]	[sɯtokːɯ]	'stock' (G)	[st]	>	[sVt]
[**st**ɑːt]	[sɯtɑto]	*start*	[st]	>	[sVt]
[**sk**ɪl]	[sɯciɾɯ]	*skill*	[sk]	>	[sVk]
[**sl**ɪpə]	[sɯɾipːɑː]	*slipper*	[sl]	>	[sVɾ]
[**str**es]	[sɯtoɾesɯ]	*stress*	[str]	>	[sVtVɾ]
[**skw**ɒʃ]	[sɯkɑʃːɯ]	*squash*	[skw]	>	[sVkVʃ]
c. ordinary medial and final RT clusters (no nasal+obstruent)					
[a**lk**əɣɔl]	[ɑɾɯkoːɾɯ]	'alcohol' (D)	[lk]	>	[ɾVk]
[kʌ**lt͡ʃ**ə]	[kɑɾɯt͡ɕɑː]	*culture*	[lt͡ʃ]	>	[ɾVt͡ɕ]

[18] Let us note word-initial epenthesis here. I have found no explanation for this development yet.

[19] According to the whole GP tradition, [s] is always the 'coda' if followed by an obstruent, even word-initially.

[aɾ**bb**ait]	[ɑɾɯbɑito]	‘work’ (G)	[rb]	>	[ɾVb]
[ɔr**ɣ**əl]	[oɾɯgoːɾɯ]	‘music box’ (D)	[rɣ]	>	[ɾVg]
[gaɾ**ss**õ]	[gɑɾɯsoɴ]	‘boy’ (F)	[rs]	>	[ɾVs]
[a**sp**iɾin]	[ɑsɯpiɾiɴ]	‘aspirin’ (G)	[sp]	>	[sVp]
[dɪ**sk**əʊ]	[disɯko]	*disco*	[sk]	>	[sVk]
[pi**st**oːl]	[pisɯtoɾɯ]	‘pistol’ (D)	[st]	>	[sVt]
[ve**kt**əɾ]	[bekɯtoɾɯ]	‘vector’ (G)	[kt]	>	[kVt]
[t͡ʃæ**pt**ə]	[t͡ɕɑpɯtɑː]	*chapter*	[pt]	>	[pVt]
[he**lp**]	[heɾɯpɯ]	*help*	[lp]	>	[ɾVp]
[me**lk**]	[miɾɯkɯ]	‘milk’ (D)	[lk]	>	[ɾVk]
[fɪ**lm**]	[ɸiɾɯmɯ]	*film*	[lm]	>	[ɾVm]
[pu**ls**]	[pɯɾɯsɯ]	‘pulse’ (G)	[ls]	>	[ɾVs]
[mɑ**st**]	[mɑsɯto]	‘mast’ (D)	[st]	>	[sVt]
[de**sk**]	[desɯkɯ]	*desk*	[sk]	>	[sVk]
[krɪ**sp**]	[kɯɾisɯpɯ]	*crisp*	[sp]	>	[sVp]
[gɪ**ft**]	[ɟiɸɯto]	*gift*	[ft]	>	[ɸVt]

d. other medial and final clusters (3 consonants)

[ul**tɾ**ə]	[ɯɾɯtoɾɑ]	‘ultra’ (G)	[ltr]	>	[ɾVkVɾ]
[e**spɾ**i]	[esɯpɯɾi]	‘spirit’ (F)	[spr]	>	[sVpVɾ]
[te**kst**]	[tekɯsɯto]	*text*	[kst]	>	[kVsVt]
[bo**rʃt͡ʃ**]	[boɾiɕit͡ɕi]	‘borsch’ (R)	[rʃt͡ʃ]	>	[ɾVɕVt͡ɕ][20]

In (6a) we observe word-initial and medial combinations made of plosives followed by sonorants in the source languages.[21] Vowel epenthesis is a norm here when these words are filtered by Japanese phonotactics. The unrounded [ɯ] is most commonly inserted as epenthetic. It is believed to be default, except in the vicinity of consonants which are palatalized or palato-alveolar, where the epenthetic vowel is normally [i]. Other vowels appear as inserted only occasionally, as can be seen in the data here. In (6b) the initial [s] is followed by one or two consonants and the repair strategy is the same. There are apparently only two L1 clusters where [s] precedes two consonants, i.e. [str] and [skw], and epenthesis occurs twice in the former case, while we notice the loss of the original [w] in the latter. It may seem, then, that a cluster involving a semivowel is perceived as one without the third consonant. Or, perhaps, the original [w] undergoes metathesis and surfaces as [ɯ].[22] Also the L1 consonant clusters shown in (6c-d) follow suit. In (6d) we can see two epenthetic vowels. It goes without saying that at the end of each word epenthetic vowels appear automatically and that process has little to do with original L1 clusters.

[20] An interesting example is ***Amsterd****am*, whose Japanese version is [ɑmɯsɯteɾɯdɑmɯ] (four epenthetic vowels).

[21] The number of medial TR clusters is smaller. This set reflects the number of tokens found in the literature.

[22] Examples like this are marginal and it would be a waste of limited space to discuss them broadly.

To sum up the description of the data shown in (6), loanword adaptation strategies in Japanese begin, as expected, with eliminating the structures which are banned by its phonotactics. Since no word in Japanese must end in a vowel, word-final epenthesis dominates the whole process. What comes next is epenthetic vowels in word-medial position. 'Branching onsets' as well as non-homorganic 'coda-onset' groups are divided by inserted vowels. These come in abundance, but not everywhere. In particular, some consonant clusters are saved from being split with epenthetic vowels. Consider the following examples:

(7) homorganic clusters (partial geminates)

a. nasal+voiced obstruent

[hipoːxɔ**ndr**i]	[hipokondeɾiː]	'hypochondria' (D)	[ndr]	>	[ndVɾ]
[tu**ndr**a]	[t͡sɯndoɾɑ]	'tundra' (R)	[ndr]	>	[ndVɾ]
[fiːli**ŋ**]	[ɸiːɾiŋgɯ]	*feeling*	[ŋ]	>	[ŋg]
[ta**ŋg**o]	[taŋgo]	'tango' (S)		-	
[əreɪ**nd͡ʒ**]	[ɑɾend͡ʒi]	*arrange*	[nd͡ʒ]	>	[nd͡ʒ]
[mɑ**ŋɣ**aːn]	[mɑŋgɑɴ]	'manganese' (D)	[ŋɣ]	>	[ŋg]
[ko**mb**inat]	[kombinɑːto]	'combine' (R)		-	

b. nasal+voiceless obstruent

[lɑ**mp**]	[ɾɑmpɯ]	'lamp' (D)		-	
[te**mp**ura]	[tempɯɾɑ]	'tempura' (P)		-	
[bæ**ŋk**]	[bɑŋkɯ]	*bank*		-	
[ãkoʁ]	[ɑŋkoːɾɯ]	'encore' (F)	[ãk]	>	[ŋk]
[fre**nt͡ʃ**]	[ɸɯɾent͡ɕi]	*French*	[nt͡ʃ]	>	[nt͡ɕ]
[dɑ**ns**]	[dɑnsɯ]	'dance' (D)		-	

In (7a) the homorganic clusters from the source languages either remain unchanged or undergo cosmetic phonetic modifications, which is hardly surprising, since in Japanese nasals can be followed by voiced obstruents. On the other hand, the cases in (7b) are less obvious, because in Yamato such combinations are forbidden. Nonetheless, in Sino-Japanese these are allowed and this type of borrowing should be treated as one that concerns this stratum.

Finally, let us take a closer look at the transformation of single obstruents (stops and affricates) into geminates in Japanese.

(8)

a. voiceless geminates

[hæ**p**i]	[hɑpːiː]	*happy*
[kɔ**p**]	[kopːɯ]	'cup' (D)
[na**p**]	[napːɯ]	'table cloth' (F)
[tɪ**p**]	[t͡ɕipːɯ]	'tip'
[tɪkɪ**t**]	[t͡ɕiketːo]	*ticket*

[fɪ**t**]	[ɸitːo]	*fit*
[kʌ**t**ə]	[kɑtːɑː]	*cutter*
[blæ**k**]	[bɯɾɑkːɯ]	*black*
[ko**k**]	[kokːɯ]	‘cook’ (D)
[ʃto**k**]	[sɯtokːɯ]	‘stock’ (G)
[ʃpi**t͡s**]	[sɯpit͡sːɯ]	‘spitz’ (G)

b. voiced geminates

[be**d**]	[bedːo]	*bed*
[flʌ**d**]	[ɸɯɾɑdːo]	*flood*
[dɒ**g**]	[dogːɯ]	*dog*
[be**g**]	[begːɯ]	*beg*
[kɒlɪ**d͡ʒ**]	[kɑɾed͡ʑːi]	*college*
[dʒʌ**d͡ʒ**]	[d͡ʑɑd͡ʑːi]	*judge*

This set of data seems to be the most interesting. Let us first note that Japanese gemination occurs only after short vowels in the donor languages which do not have geminates. The transformation of L1 voiceless stops (and sometimes affricates) into geminates need not look obvious at first glance, although it can be viewed as related to the Yamato constraint on a single [p]. Thus, the doubling of [p] may result from that constraint, while the other voiceless sounds may simply follow this pattern. Kubozono & Itô & Mester (2009: 955-961) mention a ‘striking tendency’ in Sino-Japanese which refers to syllable weight and serves ‘to improve prosodic well-formedness’. In a nutshell, they claim that in this layer of Japanese the penultimate syllable of the borrowed word should be heavy.[23] In syllabic terms, a short vowel followed by an onset is not enough and a coda to the left of the onset should be provided. Thus, [kokːɯ] is somewhat ‘better formed’ than [kokɯ]. Seemingly, the voiceless stops are ambisyllabic and this results in a reanalysis of the L1 structure.

However, the creation of voiced geminates that do not occur in the strata of either Yamato or Sino-Japanese vocabulary is much less evident. Kawahara (2005), Rice (2006) as well as Kubozono & Itô & Mester (2009) remark that voiced geminates are unstable and are frequently pronounced as voiceless, e.g. [bedːo] vs. [betːo] – ‘bed.’ There are also words in which gemination does not take place at all, e.g. [web] > [webɯ] – ‘web’, [dædɪ] > [dɑdi] – ‘daddy’ and [bʌg] > [bɑgɯ] – ‘bug’, or ones in which both versions are possible, e.g. [nɒb] > [nobɯ] or [nobːɯ] – ‘knob’.

And this takes us to the relative perception of voicing, which may vary from individual to individual, from dialect to dialect and whose general analysis cannot be successfully provided.[24] Since there is apparently no contrast between voiceless and voiced geminates in the

[23] Obviously, when a monosyllabic word ending in a consonant enters Japanese, it automatically becomes disyllabic and the sole syllable in L1 becomes penultimate in L2.

[24] The issue of laryngeal relativism in Polish is addressed in e.g. Cyran (2014) and Scheer & Cyran (2018: 314-317). For example, Cyran (2014) provides an analysis of Polish where he argues that in the contemporary language there may be two laryngeal systems, one with the high tone {H} and the other with the low tone {L}.

first two layers of Japanese, Rice (2006: 19) proposes that some speakers may try to preserve the voicing difference from the source language, while others follow the native constraints. Steriade (2004) and Kawahara (2005) maintain that voiced geminates are likely to be passively devoiced, while voiced singletons are far from that. Thus, voiced geminates are similar to voiceless geminates, whereas voiced singletons are quite different from their voiceless counterparts. It seems, then, that the reasons for gemination are phonetic and perceptual, rather than phonological.

As regards word adaptation in general, there exist numerous theories arguing for the ways in which languages borrow words from other sound systems. For example, one view says that surface phonetic constraints are counterfactual and play no role in phonology (Kaye & Nykiel 1981). In other words, whatever surface forms appear in L1, L2 will mostly adhere to its basic principles. What is more recently habitually assumed is the role of perception of L1 in L2 (e.g. Kenstowicz 2004; Adler 2006; Peperkamp & Vendelin & Kimihiro 2008; Boersma & Hamann 2010; Jacobs 2014). Basically, users of L2 are familiar with their own language, perceive L1 through that prism and adapt their pronunciation of foreign words to their native habits. Structure preservation in terms of syllabic structures is taken into account as well (e.g. Otaki 2012). Practically, users of L2 try to maintain the syllabic structure of L1 in their own system. It is also postulated that what matters is a complex combination of orthography, pronunciation and reinterpretation of both (e.g. Szpyra-Kozłowska 2016).

As for the so-called 'branching onsets' or TR clusters from L1, no acceptance is found among Japanese users and these groups must be split with epenthetic vowels. Thus, L2 rejects L1 here, to begin with. 'Coda-onset' clusters, which are not composed of homorganic nasal+obstruent group, are also disfavoured. Nasal+obstruent configurations are welcome, as expected, in both Yamato Sine-Japanese.

Regarding gemination, however, we may assume that speakers of Japanese could perceive loanwords in terms of native 'tendencies' of 'prosodic well-formedness' (gemination of voiceless stops). They may also remain faithful to the orthography of L1 (gemination of voiced stops), or they may not be sure how to interpret foreign consonant groups. By all means, this is likely. None of these procedures seem to be phonological, though.

In the ensuing section an attempt will be made to demonstrate precisely how the above-mentioned phenomena are perceived by CSL.

4. A CSL analysis of European clusters in Japanese loanword phonology

Above we have seen what adaptation of Western clusters looks like in Japanese. Now we are going to see how these clusters look in *gairaigo* from the viewpoint of CSL.

Let us begin with consonant groups included in (6a-d). CC or CCC clusters in the donor language, that is, TR combinations in (6a), *s*C(C) initial groups in (6b) as well as medial and final clusters displaying RT and other sequences in (6c-d), all decompose into CVCV or

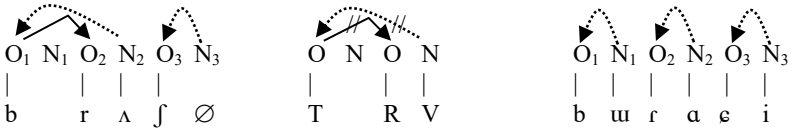
The users of Polish are unaware of this. It is not unlikely, then, that many Japanese speakers are also unconscious of accepting foreign properties such as voicing in geminates.

CVCVCV in Japanese. All these decompositions result from the impossibility of Japanese nuclear power to license word-final singletons (parameter FEN = OFF) or government--license consonants groups (parameter TR = OFF). Vowels in Japanese can license single consonants and government-license only the easiest groups shown in (3) above.

It can be said that the original governing relations are broken up and, as a result, the clusters are divided by epenthetic vowels in the target language, because Japanese vowels are prosodically too week to government-license either RIO (most difficult) and non-homorganic LIO (also not too easy). A LIO+RIO combination taken from English, i.e. [str], is also presented below. Thus, we obtain [bɯɾɑɛi] from [brʌʃ] – 'brush', [herɯpɯ] from [help] – 'help', and [sɯtoɾesɯ] from [stres] – 'stress'. All these are depicted in (9):

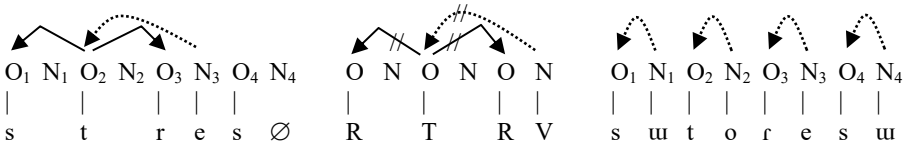
(9)

a. RIO > *lack of GL* > CVCV



b. LIO > *lack of GL* > CVCV

c. LIO+RIO > *lack of GL* > CVCVCV



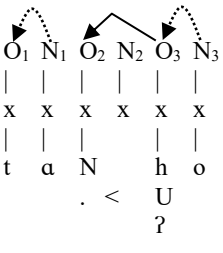
In the left-hand column we can observe the situation in the donor languages, that is, RIO in (9a), LIO in (9b) and a fusion of both in (9c). All these inter-onset governing relations are broken up because Japanese vowels are not able to government-license consonants to govern other consonants, as illustrated in the central column. The lack of IO and government-licensing is marked with (//). Finally, epenthesis is shown in the right-hand column, since the empty nuclei need to be filled with melody.

Let us recall again that word-final epenthesis is automatic, i.e. (N_3) in (9a, b) and (N_4) in (9c). Word-final epenthesis apart, the other 'locked' or 'buried' empty nuclei now appear to be fairly important, since (N_1) in (9a), (N_2) in (9b), as well as (N_1) and (N_2) in (9c) are unlocked or unburied in Japanese. They now serve as licensers of the preceding onsets, respectively. The skeleton is stable, but the CV architecture is quite different in Japanese.

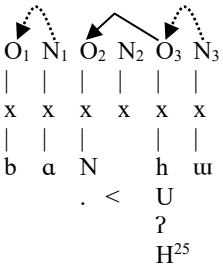
As regards voiced partial geminates, whose representatives are shown in (7) above, these undergo no structural modification since they are present in the native Japanese vocabulary. From the CSL viewpoint, such structures are fairly easy to government-license by nuclei, now always filled with melody in Japanese. Interestingly, the clusters composed of nasals and voiceless obstruents are banned in Yamato but present in Sino-Japanese and in gairaigo. Let us consider both types of clusters in the following diagrams. The relevant partial geminates in [tɑŋgo] – 'tango' (S) and [bɑŋkɯ] – 'bank' are represented with the phonological elements:

(10)

a.



b.



The CSL interpretation of these diagrams is as follows. In both (10a) and (10b) the nuclei (N_1) license the preceding onsets (O_1). The final nuclei (N_3), on the other hand, government-license the onsets (O_3) to LIO govern the onsets (O_2). The nuclei (N_2) are licensed to be mute by the LIO relations in both cases. In (10b) word-final epenthesis occurs. What makes these two diagrams different is the stops docked onto the onsets (O_3). The structure in (10a) contains the L1 voiced cluster [ŋg], which is also licit in Japanese. In this group, the velar nasal is composed of {N}, the place of articulation element {U} being provided by the homorganic stop. This stop includes {h, U, ʔ}, which means that the element complexity ratio equals (1:3). In (10b), the make-up of the plosive is {h, U, ʔ, H}, the cluster being illicit in Yamato. Element-wise, the cluster's result is (1:4).

At this juncture, one might argue that the complexity slope must be expressed by at least a two-element difference. However, epenthesis in [aʁbait] (G) > [ɑɾɯbɑito] – 'work', where [ɾ] has only one element {A} and the labial stop [b] is made of three, i.e. {U, ʔ, h}, does not support this view. The example of [dɑns] (D) > [dɑnsɯ] – 'dance' may be helpful here. The sibilant also has three primes, that is {A, h, H}, and yet no epenthesis can be observed in this word and the LIO relation holds. Thus, it is not the complexity differential that plays the main role in keeping the L1 cluster intact. It is rather the homorganicity factor. Element-wise,

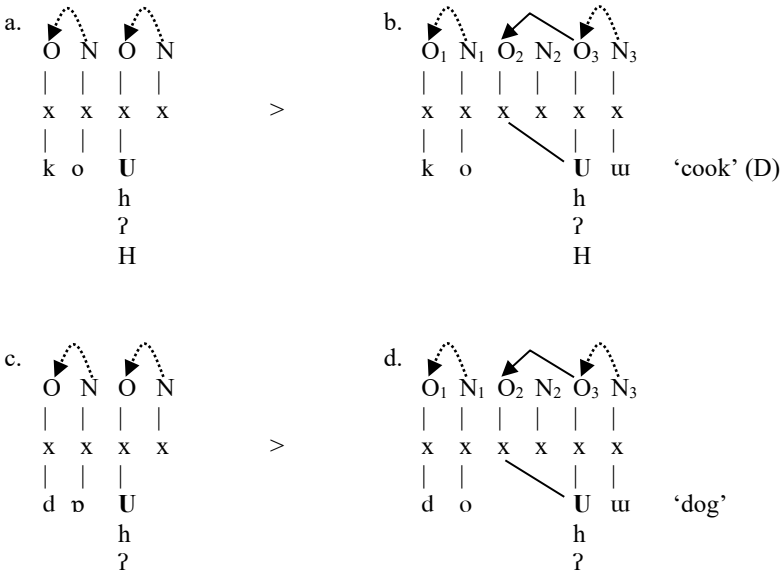
[25] It seems that in Modern Japanese the high tone {H} needs to be selected as a laryngeal marker of voicelessness (Yoshida 1996; Riney *et al*. 2007).

the governee must include only one prime and that must be {N}. Nonetheless, the element difference should by no means be neglected. In Yamato, the ratio of (1:3) was sufficient, while in Sino-Japanese it must be (1:4). It might be speculated that, since Sino-Japanese is a less native layer, the complexity slope must be greater. This issue will return below.

Let us now deal with geminates, both voiced and voiceless, which occur in adapted loanwords but are absent from L1. Let us recall that voiceless geminates are perceived as licit in both Yamato and Sino-Japanese, while voiced geminates are banned in the native lexicon.

The structural changes from a single Dutch/English consonant to a geminate in Japanese is represented graphically in (11), i.e. [kok] (D) > [kokːɯ] – 'cook', and [dɒg] > [dogːɯ] – 'dog', respectively:

(11)



What we can see above is the process of gemination. The examples with velars also hold for all the other consonants. In (11b) and (11d) new LIO relations are contracted between the governors (O_3) and the governees (O_2), which are government-licensed by the epenthetic vowels [ɯ] under (N_3). In the first case, that is (11a-b), voiceless stops undergo that process. All the elements are provided by the governor and the complexity ratio is (0:4). The primes for [k] include {U, h, ʔ, H} and these spread from (O_3) to occupy (O_2). Nonetheless, in the other development, namely (11c-d), things are different. The number of elements has shrunk by one, that is {H}, and the differential is (0:3). As already said, from the viewpoint of CSL, the easiest clusters to government-license are geminates. The question now is why new ON structures are inserted in (11).

As mentioned in (3.3) above, a 'tendency' concerning the Sino-Japanese level is that the penultimate syllable of any word borrowed from the West should be heavy. When a monosyllabic word is adapted, automatic word-final epenthesis changes it into disyllabic and the only syllable automatically becomes penultimate. When that syllable is penultimate, it 'should be heavy'. This development has much to do with syllable well-formedness and with phonetic perception of L1 single obstruents by L2 users, but little to do with phonology. CSL finds no mechanism for that, since neither complexity nor licensing scales are at work here. A new ON sequence is added *ex nihilo* and then the phonological process of spreading the primes from (O_3) to (O_2) commences.

5. Discussion

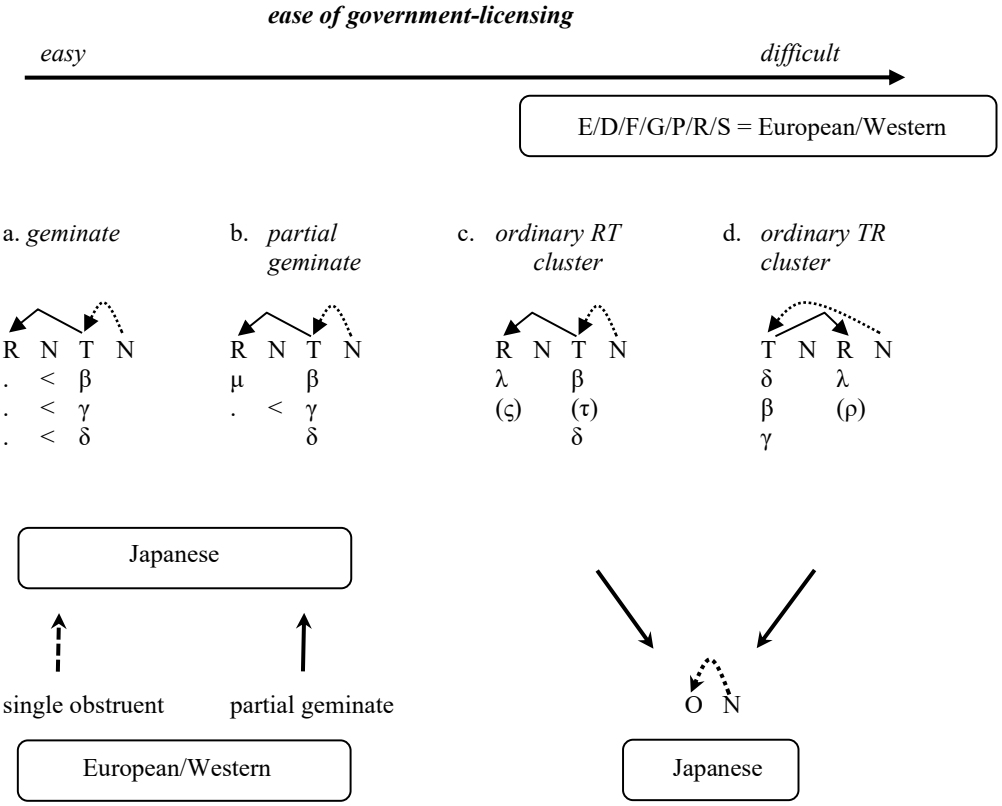
What CSL can deal with is the question of complexity slopes in geminates and homorganic partial geminates. As already said, the element differential for loanwords from the West must be at least (0:3) from geminates, while it must be at least (1:3) for partial geminates, with {N} being the element in the governee position. If the scale shown in (3) above is correct and geminates are easier to government-license than partial geminates, these two ratios make little sense. In other words, CSL makes no sense for Japanese gemination. We need to bear in mind that Japanese, like any other language, is made of diachronic layers of constraints. It seems, though, that in Japanese these layers influence the present language to a greater extent than in many other sound systems.

The Yamato phonological system was most probably laryngeally agnostic: the geminates were allegedly only voiceless, while partial geminates were supposedly only voiced. That being true, in GP and CSL terms, the parameter regarding voiced geminates was OFF, while on their voiceless counterparts it was ON. Consequently, the parameter on nasal+voiced consonant was ON, while it was OFF if clusters were made of nasals and voiceless consonants. There is little hard evidence to say that there was any voicing contrast between consonant groups, since minimal pairs were absent. Thus, it is likely that clusters differed only in their structure, including either two identical stops or a nasal followed by a homorganic stop. Voicing contrast began to matter when Chinese words (voiceless partial geminates) started to appear in Japanese. At that time, complexity slope was apparently also parameterized and set as the minimum of two primes (1:3). About a thousand years later, when the first loanwords began to arrive from the West, the Sino-Japanese system was a basis for the incorporation of new lexical items. The new system was most likely laryngeally dissimilar to Yamato and its restrictions were also parameterized in a different way. As regards geminates, the complexity ratio was set as (0:3) in Sino-Japanese, but many speakers still find that as too lenient and prefer (0:4), thus making the gemination of voiced obstruents impossible.

Phonology proper does not have a say in the gemination of L1 voiceless singletons, while L1 partial geminates are adapted with only cosmetic modifications.

Let us now see how the foregoing discussion can be summarized and represented graphically:

(12)



Beginning from the left-hand side, the interpretation of this diagram should be as follows. Single obstruents from European/Western languages may be geminated in Japanese (12a), hence the broken line. Partial geminates (12b), where nasals are followed by homorganic obstruents, are adapted with no major changes. Regarding (12c, d), Western clusters are broken up by epenthetic vowels and simple ON structures surface in Japanese.

6. Conclusion

Consonant combinations in Japanese loanwords from European tongues undergo many modifications which have been analyzed in terms of Complexity Scales and Licensing. The donor consonant groups which are most difficult to government-license, i.e. TR clusters and ordinary RT sequences, are invariably split with epenthetic vowels. That happens since Japa-nese nuclei have a very limited government-licensing potential. The clusters which are easier to government-license, that is partial geminates, remain intact and are sometimes phonetically adjusted to the consonant inventory of Japanese. Moreover, the original single

obstruents are frequently geminated, which is in accordance with the CSL view that geminates are the consonant sequences easiest to government-license. However, that gemination is a result of a structural reanalysis and/or is caused by phonetic perception of L1 singletons by the users of Japanese, which has little to do with phonology.

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Mubi-Toram lexicon and Afro-Asiatic II: Addenda with *b-

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In memoriam Prof. Khalil Alio,[1]
master of East Chadic

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The paper is part of a planned longer series designed to step by step reveal the Chadic and wider Afro-Asiatic heritage in the lexical stock of the Mubi-Toram languages which represent the easternmost (26th or 27th)[2] group of the vaste Chadic (i.e., 6th) branch of the gigantic Afro-Asiatic family.

Key words: Afro-Asiatic (Semito-Hamitic) comparative linguistics, Chadic, etymology

Introduction

Mubi-Toram (MT), as a Chadic language group, is the member of the immense Afro--Asiatic (Semito-Hamitic) macrofamily comprising six equipotential branches: Semitic, Egyptian, Berber, Cushitic, Omotic, and Chadic. The classification of the languages supposed to belong to the MT group as well as their position in East Chadic in general, have been

[1] It was during the work on the final draft of this paper that I have learnt about the tragical fact of his passing away in October 2022. He was a native Bidiya speaker and among the local scholars, he has become an outstanding figure of the linguistic research over the Dangla-Migama and Mubi-Toram group languages. As a professor of linguistics, the sometime deputy vice-chancellor (1996-7) and vice-chancellor (1997-9) of the University of N'Djaména as well as holder of numerous other public positions, he distinguished himself in the Chadian publicity also. He had been tightly associated with the Chadic linguistic researches of Prof. Jungraithmayr at the Frankfurt a/M J.W. Goethe University where I had the privilege to collaborate with him, a.o., on the lexical parallels between Bidiya and Egyptian (2002), which greatly inspired my series devoted to the inherited lexical treasure in "Dangla--Migama and Afro-Asiatic".

[2] Depending on the disputed classification of Mokilko (Mokulu) as either part of the Dangla-Migama group or a separate group itself.

intensely researched over the past quarter of a century, whose results and the state-of-the-art were surveyed by the present author recently in a separate paper.[3] Elaborating the cognate sets of the Mubi-Toram group we hope to gain a more solid vision on their historical phonology than our current working hypothesis, sufficient to another special study. Finally, it is here that I must thankfully acknowledge the expertise of several AA colleagues yielded for my work on some puzzling glosses that at times proved very difficult to etymologically identify.[4]

Mubi-Toram *b- + Ø

73. Ubi bò "personne" [Alio 2004: 268, #33] | DM: Mawa bo "homme, être humain" [CLD < ?], cf. perhaps Mawa bwʌ́nà (pl. with suffix *-na?) "Leute" [Jng. 1978 MS: 2] | Sokoro boo 'Mensch, jemand' [Lukas] | Lele bā "homme, mâle" [WP 1982: 3] = bā, pl. ba-ngnwe 'homme' [CLD < WP?], Kabalay bă "man" [Caprile] = Kabalay and Nancere ba "homme" [Hamm 2002 MS: 23, #28], Lele bāy-ndí "man" [Garrigues] = bāi gō bā "man (opp. wo-man)", bā "man (mâle)" [Simons 1981 MS: 23] | Somray ʔàbé "man" [Jng.] = ʔàbé (sic) "man" [CLD < JI] | Kera àbày "jeune homme" [CLD < ?] (ECh.: JI 1994 II 231) || CCh.: Buduma bi "männlich" [Lukas 1939: 92] || WCh. *biy- 'people' [CLD]: Ngamo bìyà (pl. of ngò) "people" [NEH], Bole bìya "people, people of…" [GAB], Kupto búu (m/f) "Mensch, Person, Mann" [Leger 1992: 18] < PCh. *baw/y- 'man' [CLD] (Ch.: CLD VI 36, #17)[5] ||| LECu.: NSomali bah "1. those born from the same mother; tribe, clan (because in some Somali genealogies people born from the same father may have different mothers if this father had several wives, e.g., bah Faadumo 'people of the lineage that descends from Faadumo); 2. people of noble or higher origin (as in the alliterating binomial pair bah iyo beel 'the noble ones and those of lower origins')" [Yaasiin 1976: 136 translated by G. Banti, p.c., 3 Feb. 2023] = bah (f) "figli della stessa madre, 2 insieme di una madre e dei suoi figli" [DSI 1985: 38][6] = bah^3 (-da) "people that joined together for a special interest or purpose" [QAS 2013: 112, translated into English by G. Banti,

[3] Marginal notes on the project for an etymological dictionary of the Mubi-Toram languages. = *Lingua Posnaniensis* 63/2 (2021), 77-94. This paper was primarily supposed to accompany the second part (comprising all the addenda with *b-) of this series "Mubi-Toram lexicon and Afro-Asiatic" which ended up in an all too gigantic length for an article, and so we decided with editors of Lingua Posnaniensis to publish that mega-intro with my survey on the MT classification separately from the etymological entries that had also to suffer being divided into several parts, but all this has been agreed on only after the publication of the third part this series in which, following the numeration of entries of the original mega-part II (running from #73 to #150), the numbering of entries begins with #151. This is why the distinguished readership should not be embarrased about that this part II ends with #77 and part IV (continued from part II) will have to start with #78, while part VII is supposed to close the abundant addenda with *b- at #150.

[4] At this point, I specially express my cordial thanks for a few linguists specialized on some AA branch for their friendly favour of consulting on a number of puzzling details: Prof. J. Lentin (Paris, GLECS, on Arabic), Prof. M. Kossmann (Leiden, on Berber), Prof. G. Banti (Naples, on Cushitic) and Dr. M. Vergari (Castelnuovo, Saho). Naturally, any error or shortcoming in this paper is solely my responsability.

[5] O.V. Stolbova (CLD l.c.), not going into details on the AA background of the Chadic root (satisfied with a pure reference to EAAN I №143 and №383), combined the above-quoted Chadic cognates also with CCh.: Dari bày "ami" [CLD], Masa ba "frère" [Mouchet], which may represent different Chadic roots.

[6] This piece of information is due to the kind p.c. by G. Banti (Naples) on the 3 Feb. 2023.

p.c. on 3 Feb. 2023; cf. also QAS 2012: 75; QDAS 2022: 51], Rendille ba (coll. fem.) "Leute, Volk" [Schlee 1978: 110, #56] = bā́ ~ báʔh, pl. baʔhó "people, community" [PG 1999: 71].
73.1. An ancient SAA root variety with a voiceless *Anlaut* seems to be present in WCh.: Kwami pée ~ fée [f-/p- < *b-?] "person" [Leger 1992: 25; 1993: 173] ||| LECu.: Somali faʿ "generation (Generation, Menschenalter)", faʿayga "people like me, the likes of me", faʿīna "people of your kind"[7] [FH 1993: 208], NSomali faʿ (m) 1. age (of a person), 2. generation, all the people born in the same period, 3. origin, genealogy" [Yaasiin 1976: 136 translated by G. Banti] = faʿ (m) "generazione", (f) "coetaneo" [DSI 1985: 212][8] = faʿ "1. age; 2. generation, age-group" [Zorc-Osman 1993: 130] ||| Eg. pʿ.t "die Menschen" (OK, Wb I 503) = "patricians, mankind (the autochtonous inhabitants of Egypt from the earliest times)" (AEO I 98*, 110*; FD 88) = "mankind, men, people, citizens, human beings, patricians" (DLE I 171).
73.2. For the AA comparison of both varieties cf. also EDE II 422; EAAN I 79, 383. The PAA origin of this SAA pair of root varieties is still to be cleared. On the analogy of the well-known history of PIE *ĝen-,[9] I suspect that pair of S$^{???}$AA *√pʿ vs. *√bh "man, people" [GT] might be traced back to a similar pair of remotely related PAA verbal roots denoting "begetting" that can only be conceived as root varieties with homorganic (but not the same) radicals as the inherited dichotomy of ECh.: Somray ḅwə̄ / ḅū "1. couver (des oeufs), incuber" [Jng. 1993 MS] vs. Somray pwà "1. pondre (oeufs)" [Jng. 1993 MS].
73.2.1. W-ECh. *√ḅ$^{w/y}$C$_3$ (where *ḅ- < *b- + *-h-) "to give birth" [GT][10] ‖ CCh. *mbuH "to give birth" [GT][11] ||| Sem.: PArabian *√bwh "to copulate" [GT][12] < PAA *√bwh (?) "to give birth" [GT] vs.

[7] As confirmed by G. Banti (kind p.c. on 3 Feb. 2023), the meanings "like, the likes of, of somebody's kind" are extensions of the meaning "generation".

[8] The author gratefully acknowledges the kind p.c. by G. Banti (Naples) on 3 Feb. 2023 about this DSI gloss.

[9] Cf., e.g., OIndic jánas- (n) "Geschlecht", OGreek γένος "Geschlecht", Latin genus, gen. gener-is "1. Geschlecht, Abstammung, Gesamtheit der Nachkommen eines Urvaters, 2. Art und Weise, Gattung, Rasse" < PIE *ĝen-os, Avestan zana- "Volk, Menschenrasse" < PIE *ĝon-os, Latin gēns "Geschlechtsverband, Sippe (urspr. sakrale, dann soziale und politische Einheit; später im engeren Sinn der Hausgemeinschaft verdrängt durch *familia*)" < *ĝn̥̄-ti-, Latin nātiō (< old *gnātiō) "1. Geburt(sgöttin personifiziert), 2. Erzeugung, Schlag, Rasse von Tieren, 3. Volksstamm, Menschenschlag" etc., all deriving from PIE *ĝen- "erzeugen" (IEW 373-375; LEW I 592, 598).

[10] Attested by Angas-Sura *ḅē "to give birth to (pl.), hatch" [Dlg.] = *ḅē$_2$ "1. to beget, 2. bear a child, 3. hatch" [GT]: Angas ·bi (so, ·b-) (≈ Hausa fafe) "to burst from ripeness (as a calabash or a hatched out egg)", cf. ki-bi "to hatch (out)" [Foulkes 1915: 149, 216] = [ḅí:] "to hatch" [Burquest 1971: 30] = ḅii "to give birth to, hatch" [Hoffmann] = ḅi "to make, hatch" [ALC 1978: 6] = ḅi "to hatch" [Gochal 1994: 74], Mupun ḅée "to beget, give birth" [Frj. 1991: 6], Kofyar ḅé "to bear (children), procreate" [Netting 1967: 3] = ḅee "to give birth to, hatch" [Hoffmann], Mushere ḅeh "to hatch" [Diyakal 1997 MS], Goemay (Dorok & Kwo dialects) ḅê [ḅē] (pl. of lala) "to bring forth" [Sirlinger 1937: 12] = ḅee "to give birth to, hatch" [Hoffmann] = ḅe (pl.) "to give birth" [Hellwig 2000 MS: 3] (AS: Hoffmann 1975: 18, #23; Takács 2004a: 30) | (???) Tangale-Waja bí- (sic: plain b-) "to bear, give birth" [Kleinewillinghöfer 1990: 237] | Saya ḅwăă "to give birth to" [Kraft] = ḅwaa [Cosper 1994: 51] ‖ CCh.: Zime byɛ́ (sic: plain b-, NB: this source recorded no ḅ-) "période de l'allaitement, accouchement" [Beavon 1996 MS: 15] ‖ ECh.: Somray ḅwə̄ / ḅū "1. couver (des oeufs), incuber" [Jng. 1993 MS: 9].

[11] Attested by Fali-Jilbu mbù "to give birth" [Kraft] | PBata *mbuh "to give birth" [GT]: Nzangi bo̲ "enfanter" [Mouchet 1950: 48] = mbùho "to give birth" [Kraft] | Daba mbu "1. enfanter (femelle), véler, 2. produire (arbre)" [Mouchet 1966: 137] = ti mbù "to give birth" [Kraft] = mbù [Lienhardt].

[12] Attested by OSA bhʔ "aller vers une femme" [DRS], Ar. bāha-(hā) "he lay with (her)", bāh- "coitus and marriage or a share of coitus, also venereal passion" [Lane 278b] = bāh- "coït", bāha "copuler" [DRS; DAFA 928] (Sem.: DRS 51, BWH3: isolated in Sem.?)

73.2.1. CCh. *√p^{w}C$_3$ “to give birth” [GT][13] ||| Eg. pˁpˁ “gebären, geboren werden (auch bildlich vom Acker der Korn hervorbringt)” (GR, Wb I 504, 3-5) = “to deliver (baby), drop (a calf)” (NE, DLE I 171) = “gebären (Kind), werfen (Kalb)” (GHWb 274).[14] Cf. SCu.: WRift *boˁ-is (caus.) “to do, make, prepare” [KM 2004: 75][15] also, perhaps with a deviant *b- instead of an expected *p-,[16] as well as PCh. *p- “to make, do” [Brt.-Jng. 1990: 157] = *√pʔ “to make” [GT].[17] Ultimately < S^{ʔ}AA *√pˁ “1. to make, 2. to give birth” [GT]?

74. MT *(m)bo “yesterday” [GT]: Mubi mbòò ~ mbóò “gestern” [Lukas 1937: 184, not listed in Jng. 2013: 162-163] = Mubi bo “hier” [Johnson 2005 MS: 18, #218; Mbernodji & Johnson 2006 MS: 27, #218], Mubi (Saraf Abuzbah) bo “hier” [MMW 2007 MS: 49, #221], Zirenkel ḅo-te bo “hier” [Johnson 2005 MS: 18, #218; Mbernodji & Johnson 2006 MS: 27, #218], Kajakse (Amtalaté) k^{h}ém:bò, Masmaje (Amlaména Hilélé) kɔ̀mbò “hier” [MMW 2007 MS: 49, #221]. The Chadic and AA background is uncertain.
74.1. Although I do not know of an erosive shift of Ch. *ḍ/*r > MT *Ø at this moment, I find the word for “yesterday” of interest in several Chadic groups like WCh.: PBauchi *vwuri

[13] Attested in Fali-Muchella pɔyi “to give birth” [Kraft], Fali-Bwagira pwe “to give birth” [Kraft] | Gude pàwá “birth”, poo “to give birth to” [Hoskison 1983: 258-259] = pwèyīky(à) [Kraft] || ECh.: Somray pwà (pwàā, pwà) “pondre (oeufs)” [Jng. 1993 MS: 52] (CCh.: Kraft 1981: #408; JI 1994 II 161). My earlier (EDE II 426) assumption, that CCh.: Masa vuɔ “to give birth” [Mouchet] = vúʔ-nā [Jng.] might also belong here, is probably false, cf. Masa *vuḍ “to give birth” [GT] reconstructed recently in the frames of my ongoing research for a comparative lexicon of the Masa group.

[14] The Eg.-CCh. comparison is due to V. Orel and O. Stolbova (1992: 195 & HSED #1993). Earlier (EDE II 426), I was disposed to suppose that the PAA etymon of Eg. pˁpˁ and its Chadic parallels might be related to PAA *√pɣ “child” [GT] reconstructed from Sem.: Ug. pɣy “lad” [Gordon after Virolleaud] = “boy” [Segert], pɣt “junges Mädchen” [WUS #2246] = “girl” [Gordon 1955: 313, #1566] | Ar. faɣā- [< *faɣay-] “das Junge eines Tieres” [WUS] ||| WCh.: Ron *fUy, pl. *fwe ~ *fye “child” [GT]: Fyer fyè (pl.), Daffo-Butura fyè (pl.), Bokkos fú, Sha foy, Kulere fo (sg.), fwè (pl.) (Ron: Jng. 1970: 388) | Diri ávíyà “child” [IL] || CCh.: PMasa *vay “child” [GT]: Lame vài “enfant” [Sachnine 1982: 300], Zime-Dari vāy “enfant” [Cooper 1984: 29], Zime-Batna vày “child” [Sachnine] (Ch.: JI 1994 II 74-75). The Ug.-Ron comparison is due to V. Blazek (1994 MS Elam, 7, #27; 1999: 61, #27). W.F. Albright (1954: 229, fn. 50) combined Ug. pɣ-t “girl” (explained from an original sense “marriageable girls, virgins”) with Ar. fāɣiy-at- “fragrant blossoms(s) (of certain trees)” < fɣw ~ fwɣ “to diffuse fragrance” (semantically false). A.B. Dolgopol’skij (p.c., September 1998), in turn, considered Ug. -t in the fem. form pɣt “girl” as part of the root. The reduplication of Eg. pˁpˁ, finally, surprisingly coincides with PBantu *-pààp- “to bear (child)” [Guthrie 1971: 135, #1449]. Purely accidental similarity?

[15] Already G. Takács (1999a: 53) supposed an etymological connection of Eg. pˁpˁ to PCh. *p- “to make, do” [Brt.-Jng.], which is semantically plausible, cf. Sem. *√ḳny “to create” [WUS #2426] ||| Eg. qn “fertig machen” (MK, Wb V 49) ||| SBrb.: EWlmd. ă-ɣnu, Ayr ə-ɣnu “1. être commencé, 2. créé” [PAM 1998: 117] ||| NOm.: Janjero (Yemsa) qōn “1. generare, 2. (pass.) nascere” [Cerulli 1938 III 82] ||| CCh.: Tera (dialectal) kwəna “to beget” [Stolbova < ?]. For this AA root see Militarev 1982: 383; 1986: 70-71; Diakonoff et al. 1986 MS: 46; OS 1990: 16, #15.

[16] Fort the regular correspondence of Eg. p- and SCu. *p-, see Takács 1999b: 395, 412; 2000a: 71, 74-76, §2; 2011: 115-117.

[17] Present in WCh.: Diri yà pì “to do” [Kraft] = pī [Brt.-Jng.] | SBauchi *pi “to make, do” [Shimizu]: Boghom pìye [Cosper], Burma pe [Shimizu], Barang pi [Shimizu], Guruntum piʔ [Shimizu] = fi [Jaggar 1989: 184] = pi [Shimizu], Jimi pi [Shimizu] = fii [Cosper], Zaar-Kal fi [Shimizu], Zungur pyu [Cosper], Mangas pì [Cosper], Kir pe [Cosper], Saya fi [Cosper] (SBauchi: Shimizu 1978: 18; Cosper 1994: 25, 47, 57) || CCh.: NMargi pa “bâtir” [Brt.-Jng.] | Mbara fú “to make (faire)” [TSL 1986: 261, 289] | Zime-Dari pù “celui qui fait, l’agent” [Cooper 1984: 21] (Ch.: Mukarovsky 1987: 249; Brt.-Jng. 1990: 157; JI 1994 II 228-229).

[GT][18] || CCh.: PTera *ḅira < *biḍa [GT][19] | PHigi *mbura vs. *mbuḍa [GT][20] | PBata *(m)büḍ- [GT],[21] whence one cannot as yet safely state whether Ch. *√^{m}br or *√^{m}bḍ underlies. The former scenario seems to be supported by HECu. *bere "yesterday" [Hudson].[22] Further possible cognates appear in the reflexes of PAA *√br "old, former, past long ago" [Takacs 2004b: 56, no. 219].[23] It would be tempting, thus, to reconstruct a SAA *√br "yesterday" [GT], but that would not explain the shifts of the C_2 in Chadic. The question must remain unsolved for the time being.

74.2. Alternatively and less likely, one might consider WCh.: Angas-Sura *ḅā > *ḅə- "?" [GT] > Kofyar ḅoe-šé "before" [Nettting 1967: 3] (cf. AS *še "to begin"?), Mushere ḅaa "to say earlier or previously" [Diyakal 1997 MS] (AS: Takacs 2004a: 33), which may eventually be akin to P$^{?}$AA *√bʔ "to finish" [GT].[24]

Mubi-Toram *b- + labials

75. Mubi bàbé (bǎp, bùbáap) "1. incuber, 2. couver (des oeufs)" [Jng. 1990 MS: 4; Jng. 2013: 160] ||| LECu. *buP- "egg" [GT]: Saho bub (f), sgv. būb-ett-a "shell(s) (conchiglia)" [Vergari 2003: 57] (not found in Afar), Oromo buppa "1. uovo di gallina, 2. frittata" [da Thiene 1939: 51] = (Shoa or Tulama) buṗ-a "egg" [Fleming] = (Wellega, in Shewa) buṗṗ-ā "egg" [Gragg 1982: 69; Hudson 1989: 56] = (Maccha) bupha, (Borana) bupa "egg" [LVC

[18] Cf. Dira/i vwùri, (?) Buli hùr < (?) *bur, Dwot vùr, (?) Geji ahùli < (?) *aburi, Polchi nvur (CCh.: Kraft 1981: no. 312).

[19] Cf. Boka ḅiraʔà, Ga'anda and Gabin ḅɨrà, Hwona ḅurarà, Pidlimdi bìḍa (CCh.: Kraft 1981: no. 312).

[20] Cf. Higi-Baza mbùrà, Higi-Futu m̀bùřù, (?) Higi-Ghye ḅèži < *(m)beč- < **mbeḍ- (?), Higi-Kamale mbùḍà, Higi-Nkafa mbùřà (CCh.: Kraft 1981: no. 312).

[21] Cf. Gude m̀bùḍ, Gudu bìḍé, Nzangi (Njanye) ḅɨḍè, Fali-Bwagira mbùḍɪ, Fali-Gili m̀buřa, Fali-Jilbu mbûř, Fali-Kiria m̀bɨřā, Fali-Mucella mbùt (CCh.: Kraft 1981: no. 312).

[22] Attested by Burji baray [Sasse] = barē [Hudson], Gedeo (Darasa) bere-ḳe [Hudson], Hadiyya bē-balla (cf. ōm-balla "2 days ago") [Hudson], Kambatta bere [Hudson], Sidamo bero [Gasparini] (HECu.: Hudson 1989: 171 who referred to HECu. *barra "day").

[23] Which I (EDE II 385) have affiliated with the AA reflexes of Eg. p3 "etw. getan haben" (OK, Wb I 494--495) = p3w (IIIae inf.?) "aux. verb with past meaning" (FD 87) = "etwas getan haben (in Vergangenheit), schon getan haben" (GHWb 270), p3 "Urzustand" (PT, Wb I 495, 11) = p3 ~ p3w "Urzustand, Gestalt" (GHWb 270), p3.t ~ p3w.t "Urzeit" (MK, Wb I 496, 1-9; GHWb 270) = "primaeval time" (FD 87), p3.w "uranfängliche Gestalt" (NK, Wb I 495, 12).

[24] Cf. SBrb.: Ahaggar héi [h regular < PBrb. *b] "c'est fini (c'est fait)" [Foucauld 1951-2: 544] ||| Bed. bəʔ(a) ~ bʔ(a) "to finish, end" [Roper 1928: 158] = beʔa "getan haben" [Vycichl] || ECu.: Yaaku -peʔs- (tr.), -peʔa- (intr.) "to finish" [Heine 1975: 125] ||| NOm.: Badditu ba-is (caus.) "finire" [Cerulli 1929: 60] || SOm.: Galila beʔ- "to finish" [Fleming], Hamer peʔ "to finish" [Fleming] (SOm.: Bender 1994: 150) ||| Ch. *^{m}b "to finish" [Brt.-Jng.]: WCh.: Miya mbà "finir" [Skinner] || CCh.: Bachama m̀bə̀ "finir" [Skinner] | Mada -bà "achèvement, totalité de l'action" [Brt.-Brunet 2000: 65] (Ch.: Brt.-Jng. 1990: 158). Interestingly, W. Vycichl (1960b: 263; 1960a: 175, #5) equated the Beja reflex with Eg. p3 (cf. the preceding footnote above) and Sem.: Ar. √fhw "vergessen, übersehen". False. The Bed.-Eg. parallel is dubious due to the irregular Bed. b- vs. Eg. p-, while Ar. √fhw is clearly unacceptable both phonologically (Ar. -h- vs. Eg. -3) and semantically. By the way, E. Zyhlarz (1932-3: 167), in turn, combined Eg. p3 Bed. fāys "beendigen, schließen" [Almkvist apud Reinisch 1895: 85] = fā-is (caus.) "beendigen" [Zyhlarz] = fay-is ~ fai-s (caus.) "to finish, complete, do", cf. fay-am (refl.) "to be done, completed" [Roper 1928: 182], which may be an ancient root variety with a voiceless *Anlaut* to Bed. √bʔ (above in this footnote).

1992],[25] Baiso and Gidole bub-a “egg” [Fleming] (LECu.: Fleming 1964: 48; Blažek 2010: 33, #24.b). A strange isogloss with no match elsewhere in the whole macrofamily[26] to the best of my knowledge. Its background in the AA root stock is equally puzzling, cf. either (1) SBrb.: Ghat a-beffa “chaux” [DRB 31, BF1: isolated in Brb.] or (2) CCh.: Masa *buf ~/< *bunuf[27] “yellow” [GT][28] or (3) Bed. bif “to break (tr.) esp. a hollow thing, e.g. bottle, head” [Roper 1928: 160]. Otherwise it remains equally puzzling how the Mubi-LECu. isogloss, issuing perhaps from a reduplication (?), relates to apparently plausible rhyme-word or simplex terms for “egg” like the below-listed ones:

75.1. PAA *√ḫb “egg” [GT] > Sem.: MSA *√ḥbw: Jibbali ḥēt “testicule” [DRS] ||| LECu.: Somali ḥáb “contents of eggshell”, cf. (1) bḗdka ḥábkīsa ʿád “the white of the egg”, (2) bḗdka ḥábkīsa ʿás “the yolk of the egg” [Abraham 1964: 113] = ḥab (xab) (m) “l. muco, 2. liquido amniotico, 3. albume, albumina. 4. (-bab) (m) otre per l’acqua” [DSI 1985: 619] = ḥab “amniotic fluid, Fruchtwasser” [FH 1993: 131] = ḥab “1. mucus, 2. amniotic fluid, 3. white of egg” [Ehret][29] = ḥab-(ka), pl. ḥabab-(ka) (xab) (m) “1. albumen, white of egg, 2. amniotic fluid, 3. white of egg” [Zorc & Osman 1993: 419, quoted also apud CLD] ||| WCh.: PRon *hUḅ “egg” [GT]:[30] Daffo hóʔ [Jng.], Bokkos hoʔ [Jng.], Kulere a-hub-áw [Jng.] = ə̀ḫə̀bau

[25] The glottal labial C_2 reminds us in the comparative wordlist by G. Hudson (1989: 56) of his HECu. *ḳūṗṗ-e “egg”, which must certainly represent a distinct AA etymon, cf. Sem.: Ar. √qwb > qāb-at- “1. œuf”, qāb- “espace compris entre le but de l’arc et l’endroit où on le tient avec la main quand on tire de l’arc”, qawab- (pl.) “coques d’œufs cassés”, cf. mutaqawwab- “1. écorché, dépouillé de sa peau, de son écorce, 2. qui a ôté sa dépouille (serpent)”, √qbb > qubb-at- “1. cupole, voûte”, √qbqb > qabqāb- “coquillage marin employé pour lisser les étoffes, etc.” [BK II 657, 664, 830]. For a different etymology of Ar. qūb- “coquille d’œuf” see Cohen 1947: 125, #230, on the one hand. For the time being, I know of no convincing evidence for a shift like Oromo bu- < ECu. *ḳu- whatsoever, on the other hand. This HECu.-Ar. isogloss, if really exists, must be some way etymologically related to that of a *Wanderwort* attested by Sem.: Tigre gube, Tigrinya gobaye “tortue” (ES: DRS 105, GWB3 among the reflexes of Ar. ǧawb- “bouclier”) ||| SCu. *ḳo/ube+ “tortoise” [Ehret]: WRift *qubḗ “tortoise” [KM 2004: 235 comparing Swahili kobe “tortoise”]: Alagwa qube [Ehret] | Asa ʔumbet [Ehret: ʔ- regular < *ḳ-] | Ma'a kóbe [Ehret] | Dahalo ḳóße ~ ḳúßi [Ehret] (SCu.: Ehret 1980: 253, #VII.C.31) ||| PCh. *√g^{m}b-k vs. *√gr^{m}b “tortoise” [JS 1981: 274].

[26] It would be all too far-fetched to affiliate it with AS *bʲap ~ *bʲāp > *vʲap “pumpkin, papaw” [GT]: Kofyar vìyap “hanging holder for calabash” (any connection to vìyap ~ Bong dialect là vìyap [< *bʲap] “pawpaw” ≈ Hausa gwándà “pawpaw” [Abraham 1962: 351]?) [Netting 1967: 41], Goemay biaap (so, plain b-) “a gourd, pumpkin” [Sirlinger 1937: 14] = biyàap (so, plain b-) “Süßkartoffel” [Jng. 1962b MS: 1] = biyàp (so, b-) “melon” [Kraft] = ḅyap “pumpkin, melon”, ḅyap teŋ “pawpaw” (lit. “pumpkin-tree”, teŋ “tree”) [Hellwig 2000 MS: 4] (AS: Takács 2004a: 44).

[27] The full-form variety? Astonishing is its coincidence with Eg. bnf “Körperteil des Rindes und des 3bḏ.w-Fisches, offizinell verwendet” (Med., Wb I 460, 1-2) = “Galle” (Deines-Grapow 1959: 171) = “gall” (FD 82) = “Galle (Rind, 3bḏ.w-Fisch, Schildkröte)” (GHWb 253). But EDE II 223 offered an alternative equation with WCh.: AS *ḅǎ$_2$n “1. gall, 2. spleen” [GT]: Angas bĕn (so, short -ĕ-) “the gall of the stomach” [Foulkes 1915: 149] = ḅén “Gallenblase”, ʔàm ḅén “1. Galle, 2. Gallenflüßigkeit” (ʔàm “water”) [Jng. 1962a MS] = ḅen “gall-bladder” [ALC 1978: 6] = ḅén “bile, gall-bladder” [Gochal 1994: 41], Goemay mḅaan (so, -aa-) “spleen” [Sirlinger 1937: 136] (AS: Takács 2004a: 27).

[28] Cf. Masa-Bongor būfū “jaune” (p. 32), būfū “bleu” (p. 35), bùfù “bleu et jaune (Djita)” vs. “jaune” (Golo) [Jng. 1971/2 MS: 32, 111], Gizey/Wina bùf, Masa bùf, Musey búnúf “jaune” [Ajello et al. 2001: 32].

[29] Combined by Ch. Ehret (2000 MS: 309, #2453) with Ar. ḥafl- “to rain violently” and NOm.: Zayse hepp-et- “to sieve” < AA *-ḥep- “to drip”.

[30] Its striking resemblence to HECu. *ḳūṗṗ-e “egg” [Hudson 1989: 56] cannot be left unconsidered. The shift of Ron *h- < AA *k appears plausible (parallel to Ron *k- < AA *ḳ-, cf. Stolbova 1987: 54, table 1.5; Takács

[IL] ‖ CCh.: Kilba híbí "egg" [Kraft 1981 II 94, #205]. The Somali-Ron isogloss was first compared by O.V. Stolbova (CLD V 132, #182).[31]

75.2. PCh. *√^{m}by "egg" [GT] > WCh.: Dera ḅíyà "egg" [Jng.] = ḅiya [Kraft 1981 I 133, #205] ‖ CCh.: Buduma (Yedina) ámbai [Lukas] = ámbói [Cyffer] "egg" (Ch.: JI 1994 II 122--123). May be related to WCh.: AS *ḅē$_2$ "1. to beget, 2. bear a child, 3. hatch" [GT] = *ḅē "to give birth to (pl.), hatch" [Dlg.]?[32]

76. Mubi bòbú (m) "Sohn" [Lukas 1937: 180; not listed in Jng. 2013: 162] ‖ WCh.: Kirfi (pl.) bòfóyò "son" [Schuh], which may represent a reduplication (< *bawbaw-?) of a SAA root whose NAA trace may have perhaps been retained (in Arabic) also:

76.1. S/P$^{???}$AA *baw- (?)„child" [GT] > PCh. *b^{w}ay > *v^{w}ay (???) "child" [GT]:[33] WCh.: (?) PRon *f^{w}ay [*f^{w}- regular < *b^{w}-/*bU-?]: Bokkos fú "Kind" [Jng. 1970: 141], Daffo--Butura fyè (pl.) "Knaben, Jungen" [Jng. 1970: 218], Sha foy "Knabe, Kind", foy ʔa-mə́n "mein Sohn" [Jng. 1970: 284], Kulere fo "männl. (?) Kind", fwè "Junge, Kind", fwèy (Richa dialect) vs. fwî (Ambul dialect) má mor "Mädchen, Tochter" [Jng. 1970: 352] | Galambu bwe: "child" [Schuh] | Diri ávìyà "child" [IL] ‖ CCh.: Zime bwá "enfants, petits", bwân

2000b: 96-97; 2022b: 122-123, §7.2, also fn. 34), so a chain of shifts like Ron *hUḍ < *kUḍ < (via metathesis of glottalization typical in Chadic) AA *ḳub is conceivable, which agrees well with Ar. qūb- and HECu. *ḳūṗṗ-e.

[31] Stolbova (l.c.), who explained all this from her PCh. *[ḥ]ab- "white" [CLD], ignored the fact that the underlying PAA etymon of this root for "white, light" must have contained an *ʕ- (not *ḥ-), cf. Takács 2010: 143; 2011: 142. There are other plausible approaches to the primary meaning of PAA *√ḥb "egg", cf. either of the following scenarios: (1) if "egg" was named as the "grain" of an animal, it may be akin to Sem. *ḥabb- "grain" [CLD] yielding, a.o., MSA: Jibbali ḥēt "testicule", ḥabbét "pubis" [DRS], Mehri ḥəbbēt "1. grain, 2. clitoris" [DRS] ||| LECu.: Somali (borrowed from Ar.) ḥábbi "Kern, granum" [Reinisch 1902: 214] (that was compared by L. Reinisch to Bed. hábba and Ar. ḫVbb-) ||| ECu.: Dullay: Dobase ḥayyắp-e (f) "Getreide" [AMS 1980: 163] or (2) if "egg" was regarded as containing the core essence of a living being, cf. ES: Harari ḥabu, Gurage amb^{w}ä "mœlle" [DRS 814, ḥbw: isolated in Sem.] or (3) due to its shape, it might just as as well be affiliated with Sem.: Ar. ḥabḥab- "pastèque (Hedjaz)" [DRS 815, ḥbḥb4] > LECu.: Somali ḥábḥab "melone" [Abraham 1964: 114] = ḥabḥab (f) "water-melone, Wassermelone" [FH 1993: 131] on the analogy of WCh.: AS *ḅ^{y}ap ~ *b^{y}āp > *v^{y}ap "pumpkin, papaw" [GT] vs. LECu. *buP- "egg" [GT]. The interrelationship of "grain", "egg", "testicule", "melone" is further corroborated by the remark in the DRS (l.c.): "Un rapport avec *ḥabb-* 'grains' peut être envisagé ... En Égypte, *ḥabḥab* 'chétif, malingre' s'applique à *baṭṭīḫ* 'pastèque' et *baṭṭīḫ ḥabḥab* désigne une petite pastèque: la valeur 4. pourrait dériver de 2.", i.e. ḥabḥab- "chétif (jeune animal), rapide (chamelle), écoulement tranquille de l'eau".

[32] Reflected by Angas ·bi (so, ·b-) (≈ Hausa fafe) "to burst from ripeness (as a calabash or a hatched out egg)", cf. ki-bi "to hatch (out)" [Foulkes 1915: 149, 216] = [ḅíː] "to hatch" [Burquest 1971: 30] = ḅii "1. to give birth to, 2. hatch" [Hoffmann] = ḅi "1. to make, 2. hatch" [ALC 1978: 6] = ḅi "to hatch" [Gochal 1994: 74], Mupun ḅée "to beget, give birth" [Frj. 1991: 6], Kofyar ḅé "to bear (children), procreate" [Netting 1967: 3] = ḅee "1. to give birth to, 2. hatch" [Hoffmann], Mushere ḅeh "to hatch" [Diyakal 1997 MS], Goemay (Dorok and Kwo dialects) ḅê [ḅē] (pl. of lala) "to bring forth" [Sirlinger 1937: 12] = ḅee "1. to give birth to, 2. hatch" [Hoffmann] = ḅe (pl.) "to give birth" [Hellwig 2000 MS: 3] (AS: Hoffmann 1975: 18, #23; Takács 2004a: 30). Related to AS *ḅē$_2$ "to break, split" (q.v.)?

[33] The Ron Chadic parallels, given the *lautgeschichtliche* uncertainty of their labial radical, was alternatively affiliated by V. Blazek (1994 MS Elam, 7, #27; 1999: 61, #27) with Sem.: Ug. pγy "lad" [Gordon after Virolleaud] = pγy "boy" [Segert apud Blazek], fem. pγ-t "girl" [Gordon 1955: 313, #1566] = pγ-t "junges Mädchen" [WUS #2246] | Ar. faγā- [< *faγay-] "das Junge eines Tieres" [WUS]. Still, one would in Chadic expect more than a zero reflex to Sem. *γ (voiced velar fricative). Even if the precise reflex in Ron has not yet been demonstrated, some orientation has been provided by G. Takács (2013).

“enfants” [Beavon 1996 MS: 15], Zime-Batna (Lame) vài, pl. ʔúdò (dér. vəvài) “enfant” [Sachnine 1982: 300], Zime-Dari vāy, pl. tàw “enfant” [Cooper 1984: 29] (Ch.: also JI 1994 II 74-75) ||| NOm.: Kullo bā “boy, child, son” [Alemayehu Abebe in Bender 2003: 13, #17] ||| Sem.: Ar. baww- “1. petit de chameau, 2. sot, stupide, 3. peau de petit de chameau empaillée avec l’herbe ṯumām- qu’on amène à une chamelle pour lui faire croire que c’est son petit, ce qui fait qu’elle donne du lait ou en allaite un autre” [BK I 174-175] = “a skin of a young unweaned camel stuffed with straw or with ṯumām- (i.e. panic grass) or with dry herbage to which a she-camel is made to incline when her young one has died : it is brought near to the mother of the young camel (that has died) in order that she may incline to it and yield her milk over it, 2. also: a she-camel’s young one, 3. stupid, foolish, having little sense or intellect” [Lane 270b] = “chamelon nouveau-né” [DRS 51, BWW/Y1: isolated in Sem.]. Cf. also Takacs 2022d (OmAA VII), 151, #227.

77. Birgit bòobà (m), pl. bóobì “aveugle” [Jng. 2004: 351] | DM *bŪb- “blind” [GT]: WDangla búúbù “aveugle” [Fédry 1971: 97], Mawa bòobo “blind (aveugle)” [Jng. 1978 MS: 2] | Somray bwə̄ / bū (bwʌ / bōō, bwʌ / bô) “devenir aveugle” [Jng. 1993 MS: 7] | Kera bəw-bəwì “blind (aveugle)” [Ebert 1976: 32] < ECh. *bŪb- < **bawbaw- “blind” [GT] || CCh.: Gudu ḅɔ́ɔ́p “blind” [Kraft 1981 III 79, #309]. This Chadic root appears to be related to a few further, more widely attested, AA roots signifying some bodily defect or deficiency, which occur both in simplex and reduplicated forms:

77.1. PAA *√bw ~ *√by “deaf-mute” [GT]: WCh.: Hausa béébéé (m), béébìiyáá (f), pl. béébàayéé “deaf mute” [Abraham 1962: 95] | Pero ḅwaḅwò “deaf” [Kraft 1981 I 112, #310] || CCh.: Fali-Kiria bùbùnù “deaf” [Kraft 1981 apud Mukarovsky 1987: 267] ||| SCu.: Dahalo ḅuḅwi, pl. ḅúḅwima “dumb” (considered as borrowed from Swahili bubu) [Tosco 1991: 130] ||| SBrb.: Ahaggar ĕ-bei, pl. i-bei-en “(homme) muet” [Foucauld 1951-2: 41], Ghat i-bi, pl. i-bi-en “muet” [Nehlil 1909: 180] (SBrb.: DRB 142).

77.2. PAA *√nbʔ (root extension *n-?) “unable to perceive” [GT]: CCh.: Afade mbî [mbi:] “Tauber” [Sölken 1967: 303, #509] ||| (?) Bed. nuwḗw [w regular < *b] “taub” [Almkvist 1885: 52] = nuwúw ~ nuwḗw “taub”, nuwēw “taub sein” [Reinisch 1895: 187, not found in Roper 1928] ||| Eg. j.ʔnb3 (prothetic j- + *√nb3?)[34] “stumm sein” (Med., Wb I 96, 2) > Coptic (S) (ϵ)ⲙⲡⲟ, (B) ϵⲃⲟ “muet (dumb person)” (CED 87; DELC 118) ||| Sem.: Ar. nabaʔa I “7. ne pas entendre ou ne pas voir, être sourd ou aveugle à qqch., p.ex., à un bruit, à une nouvelle (se dit des oreilles ou des yeux quand il est question de choses désagréables à voir ou à entendre” [BK II 1178].

77.3. One wonders if **SʔAA *√bb** “to vanish, be lost” [GT], along with the CAA negative morph ***√b** [GT] (cf. EDE II 176-179), may eventually (in the remote PAA phase) be related.[35]

[34] This root, if it derives < *√nbr, might alternatively be equated with LECu.: Saho baran “stumpf sein” [Reinisch 1890: 88: no cognates listed] = baran (radice non usata) > ubrune “to be blunt, be not sharp (of things)”, abran (verbal noun) “bluntness” [Vergari, kind p.c. on 9 Feb. 2023].

[35] Cf. Eg. bbw “in der Formel: bbw m bb-f oder bbw m bbw mit Bezug auf die als Feind des Re getötete Schildkröte” (NK, Wb I 455, 12) = bbw “*ersticken”, cf. ʿnḫ rʿ mt štw bbw m bb-f “es lebt Re und stirbt die Schildkröte ... (?)” (GHWb 252) ||| LECu.: Rendille a-bá̱ba “ich gehe verloren, verirre mich” [Schlee 1978: 110,

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Special symbols

P: any labial stop (f, p, b, ṗ), T: unspecified dental stop (t, d, ṭ), S: any voiceless sibilant and/or affricate (s, š, ŝ, c, č, ĉ), Z: unspecified voiced sibilant and/or affricate (z, ʒ, ǯ), K: any velar stop (k, g, ḳ), Q: unspecified uvular or postvelar etc. (q, ɢ, q̇, ḳ), H: any of the pharyngeals or laryngeals etc. (ʿ, γ, ḥ, h, ʾ). The vertical strokes signify the the degree of closeness of the language groups (e.g. Kotoko | Masa), sub-branches (e.g. North Berber || East Berber), and branches (Semitic ||| Egyptian), from which the individual lexical data are quoted.

Abbreviations of languages and other terms

(A): Ahmimic, AA: Afro-Asiatic (Afrasian, Semito-Hamitic), Akk.: Akkadian, Amh.: Amharic, Ar.: Arabic, Aram.: Aramaic, AS: Angas-Sura, Ass.: Assyrian, (B) Bohairic, Bab.: Babylonian, BAram.: Biblical Aramaic, Bed.: Bed'awye (Beja), BM: Bura-Margi, BN: Bade-Ngizim, Brb.: Berber (Libyo-Guanche), BT: Bole-Tangale, C: Central, CAA: Common Afro-Asiatic, Ch.: Chadic, CT: Coffin Texts, Cu.: Cushitic, Dem.: Demotic, DM: Dangla-Migama, E: East, Eg.: Egyptian, ES: Ethio-Semitic, ESA: Epigraphic South Arabian, Eth.: Ethiopic, Eth.-Sem.: Ethio-Semitic, (F): Fayyumic, GR: Ptolemaic and Roman period, H: Highland (in Cushitic), Hbr.: Hebrew, Hgr.: Ahaggar, Hung.: Hungarian, L: Late, L: Low(land), lit.: literature, LP: Late Period, M: Middle, Mag.: magical texts, Med.: medical texts, MK: Middle Kingdom, MSA: Modern South Arabian, MT: Mubi-Toram, Mzg.: Tamazight, N: New, N: North, NE (or NEg.): New Egyptian, NK: New Kingdom, O: Old, OK: Old Kingdom, Om.: Omotic, OSA: Old South Arabian, P: Proto-, PB: Post-Biblical, PT: Pyramid Texts, reg.: regular, S: South(ern), (S): Sahidic, Sem.: Semitic, Syr.: Syriac, Ug.: Ugaritic, W: West, Wlm(d).: Tawllemmet, Y: Young(er Babylonian).

Abbreviations of author names

Abr.: Abraham, AF: Adolf Friedrich (as quoted in Lukas 1937, 1941), AJ: Alio & Jungraithmayr, Alm.: Alemayehu, AMS: Amborn, Minker, Sasse, Apl.: Appleyard, Ast.: Aistleitner, BK: Biberstein & Kazimirski, Brq.: Burquest, Brt.: Barreteau, CR: Conti Rossini, Dbr.: Djibrine, Djk.: D'jakonov, Dkl.: Diyakal, Dlg.: Dolgopolsky, DMT: Dakouli, Maaß, Toomey, FH: Farah & Heck, Frj.: Frajzyngier, Ftp.: Fitzpatrick, GAB: Gimba, Ali, Bah, GB: Gesenius & Buhl, GDB: Gravina, Dumok, Boydell, Grt.: Grottanelli, GT: Takács, HLDPBMA: Haller, Lawarum, Douatai, Pourtshom, Baitoua, Magdeme, Amadou, Hsk.: Hoskison, Ibr.: Ibriszimow, IL: Institute of Linguistics, IS: Illič-Svityč, JA: Jungraithmayr & Adams, JI: Jungraithmayr & Ibriszimow, Jng.: Jungraithmayr, Jns.: Johnstone, JS: Jungraithmayr & Shimizu, KB: Koehler & Baumgartner, LVC: Leus, Van de Loo, Cotter, KM: Kießling & Mous, LS: Lamberti & Sottile, MM: Majzel' & Militarev, MMW: Marti, Mbernodji, Wolf, Mnt.: Montgolfier, Nct.: Nachtigal, NM: Newman & Ma, OS: Orel & Stolbova, PAM: Prasse, Alojaly, Mohamed, PG: Pillinger & Galboran, PH: Parker & Hayward, PW: Plazikowsky & Wagner, RL: Roth-Laly, SIL: Summer Institute of Linguistics, SPM: Shryock, Palomo, Martin, Srl.: Sirlinger, TC: Taïne-Cheikh,TC: Taïne-Cheikh, TG: Takács, TSL: Tourneux & Seignobos & Lafarge, WP: Weibegué & Palayer.

#58] | Arbore bābiʾ- "to get lost, disappear, be destroyed" [Hayward 1984: 345] ||| WCh.: AS *pāp, pl. *pap (or with *pʰ-?) "1. to loose, 2. hide" [GT]: Goemay paap ~ haap (sic, h-) [h- < *pʰ-?] "to loose" [Ftp. 1911: 218] = paap, pl. pap "to loose, be lost, hide" [Sirlinger 1937: 170] = phaap (sg.), phap (pl.) "to be lost, hide" [Hellwig 2000 MS: 29] (AS: Takács 2004a: 281) vs. Gerka pu-puup (partial redupl.) "to destroy" (lit. "to get sg. lost"?) [Ftp. 1911: 215] vs. Goemay ḅap "to finish, complete, destroy" [Sirlinger 1937: 11] (AS: Takács 2004a: 292) | Tangale b<u>uu</u>b<u>e</u> ~ b<u>uu</u>br<u>e</u> "to push down sg. arranged, cause to collapse, throw over (Hausa ruše)" [Jng. 1991: 74].

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Semito-Hamitic or Afro-Asiatic consonantism and lexicon: Episodes of a comparative research II: The "old school" of Egypto-Semitic (Part 2: Post-war phase)[1]

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My retrospective survey on the past and present trends in the comparative research of Semito-Hamitic / Hamito-Semitic (SH / HS, resp.) or Afro-Asiatic (AA) phonology (first of all consonantism), root structure and lexicon has been segmented into eleven episodes according to diverse (often overlapping in time) trends. This series of studies is now under way and will be presented part by part in a series of papers. The present paper surveys the post-war history (second half of the 20th century) of a rather introverted and fossilized special branch of comparative studies that has been arbitrarily focusing on a forced comparison of just Semitic and Egyptian, which was split off for more than a whole century by now from mainstream Semito-Hamitic studies at the end of the 19th century.

Keywords: science history, Afro-Asiatic (Semito-Hamitic), Semitic, ancient Egyptian, comparative linguistics

[1] This paper has been completed in the frames of my research project "Micro-reconstructions in the Southern Afro-Asiatic (Semito-Hamitic) lexical root stock" facilitated by the research grant "Advanced Research in Residence" (ARR) of the University of Łódź (UŁ), which I gratefully acknowledge in this place. My special thanks go to Prof. K.T. Witczak (Dept. of Classical Philology, UŁ) for selflessly supporting my ARR project facilitating my ongoing research on the AA root stock. Prof. em. W.G.E. Watson (Morpeth, UK), the doyen of Ugaritic philology, for his friendly favour of reading the draft version of this paper and improving its English style.

Dedicated to the blessed memory of my sometime colleague,
Mr. Péter Gaboda (1963-2023)[2]
on the 30th anniversary of our fruitful sessions (1993)[3]
in the library of the Egyptian Collection
of the Hungarian Museum of Fine Arts

Introduction

The first part of this study[4] had a lengthy intro into the aims of the whole series of studies this one also belongs to, preceding the main characteristics, works and figures of the comparative Egypto-Semitic "old school" in the enormously productive period of this trend flourishing between A. Erman's epochal study of 1892 and WW II. The second half of this study details the long afterlife of this increasingly introverted trend in the 2nd half of the 20th century predominantly in terms of its taxonomical criteria as this trend has unfortunately

[2] Sometime research fellow (1988-2023) of the Egyptian Dept. of the Museum of Fine Arts, the only one I have known in Hungary among the so numerous local egyptologists and orientalists at all, who was capable and knowledgeable about comparative Semito-Hamitic and has learnt about the ways of this neglected domain. He had been the only one in my country I have ever been able to maintain reasonable and fruitful scholarly contact with. But the incredible range of his interests was far-far beyond mine and this paper is just a very modest reflection of the universe he had been at home in. In the footnote to the dedication (commemorating the 30th anniversary of when he, upon the instruction of Prof. V. Wessetzky, had made me familiar with some basic tools of comparative Semito-Hamitic), placed in the first part of this study (LP 63/1, 2021, p. 132, fn. 4), which went into press only in spring 2023 (which is why the word on his tragical loss could be considered in that issue), I have already described the personality of this exceptionally hidden treasure of Hungarian Oriental studies.

[3] What I would like to specially emphasize with this second dedication to the genius of Péter Gaboda is that his guidance in the very beginning of my acquaintance with Semito-Hamitic throughout 1992-3 had been concluded by our unforgettable spring and summer sessions in the library of the Egyptian Collection, full of fun and so rare moments of distraction, in 1993, the last year when we had still been in weekly regular personal contact – precisely thirty years ago. Afterwards, my path turned away from him and the museum for a few years to start my research (1994-8) for my ph.d. thesis. But following that very turbulent period, our relationship took a new regular form: when I had begun my German studies and then my Humboldt research fellowship in Frankfurt am Main under the guidance of Prof. H. Jungraithmayr in summer-autumn 1999, our regular contacts were intensively renewed in a written form to become an incredible abundant and long correspondence lasting until the last months of his difficult life for more than two decades when we had hardly seen each other any more. In fact, practically only twice in the Hungarian capital throughout the first two decades of this century. Once we spent one nostalgic afternoon together early 2003, a whole of a decade after our museum sessions, when, having returned from my Frankfurt research, I took the position of a researcher at the university's dept. of egyptology in my home university. Subsequent to this long chat, I multiply tried to seduce him back to the side of Semito-Hamitic, to the field of our sometime shared interests, but I was amazed by how deeply he had already by that day been engaged in his enormously genuine and fruitful researches overwoven by the European-Oriental science history of the 19th century. His research materials represent an incredible treasure of which he had only managed to publish a minor share. Finally, the second and very last occasion was in or around 2010 for another whole day of desperately nostalgic walk all along and around the Danube shores. Afterwards we haven't seen each other any more, although we had been corresponding for another 12 years.

[4] "Semito-Hamitic or Afro-Asiatic consonantism and lexicon: Episodes of a comparative research II: The "old school" of Egypto-Semitic (Part 1: Pre-war phase)". = *Lingua Posnaniensis* 63/2 (2021), 131-145.

entirely failed in showing up any renewal in terms of quality. The entries' numeration is continued from Part I.

2.5. The post-war survival of the "old school"

While in the pre-war phase, the multitude of interested scholars and their outcome in Egypto-Semitic comparative linguistics was more or less in the same line with the level of general Semito-Hamitic studies of their day in the manner of Leo Reinisch, it was no longer the case with the post-war phase. What Egypto-Semitic has yielded in the 2nd half of the 20th century is a bizarre anachronism already *eo ipso*. This trend, hardly capable any longer to keep up with the all the speedier temp of modern Afro-Asiatic linguistics after J.H. Greenberg (1955 etc.) announced a substantially reformed vision of AA, and has often been yielding rather strange results. After WW II, this surviving trend has been typically represented merely by a few egyptologists (scattered around the world without founding any peculiar school) and Semiticists (esp. in Italy) in the traditional manner of the long out-dated treatises from the 1930s by the great predecessors whose work was progressive in their day, but it has not been adequately reformed by the more recent generations of this trend. Basically, these authors have been fundamentally refraining from dealing with and using the post-Greenbergian results and principles of modern AA comparison[5] and they basically kept seeking

[5] Therefore, the nice ideas formulated in his talk on the "Desiderata for the Historical and Comparative Study of Egyptian" delivered for the 1st International Congress of Egyptologists (Cairo, 2-10 October 1976) by E.S. Meltzer (1979: 465) are no more than a humble and optimistic desire: "A look at the recent literature makes it apparent that an increasing amount of attention is being paid to the historical and comparative study of the ancient Egyptian language. There are several reasons ...: ... 2. The growth of Afroasiatic studies. Over the past three or four decades the comparative study of the phylum encompassing Semitic, Egyptian, Libyco-Berber, Cushitic(-Omotic?), and very probably (sic) Chadic has become a recognized discipline within linguistics, and this study of course directly concerns Egyptian ... 3. The greater involvement of current linguistic ideas in Egyptology." But, in fact, the above-mentioned growing interest in comparing Egyptian with the non-Semitic (African) branches has regularly and almost exclusively emerged on the behalf of non-egyptologists, whereas Meltzer failed to name any single scholar from classical egyptology to have produced any kind of comparative phonology and/or word--lists comparing the AA branches in general. On the other hand, one can hardly agree with labelling comparative AA as being "a recognized discipline within linguistics", which is unfortunately not even today is the case and may be even worse, which is easy to understand from the pure facts that comparative AA linguistics infrastructurally hardly exists, since it (1) has by now lost almost all its journals (cf., e.g., the destiny of AAL and JAAL edited by R. Hetzron), (2) has no institutional bases whatsoever on its own rights at any of the universities or academies worldwide (cf., e.g., the tragical destiny of A. Zaborski's unique AA dept. shut down in 2013 at the Jagellonian University of Cracow immediately after he retired), (3) does not represent an organic and permanent part of egyptological training (cf. the sole course worldwide introducing egyptologist students into AA offered between 2003--2019 by the present author at the Hungarian ELTE, which is no longer available either), only to name just some principal factors. In his appraisal of the pioneering 1st Italian "Giornata di studi camito-semitici e indoeuropei" (Milan, 1980), A. Loprieno (1982: 86-87) rightly complained (even when it was voiced from the standpoint of the AA-IE comparison basically and not AA itself as such) that "die gesamte afroasiatische Forschung bis heute im Grunde von dem semitischen Bereich ausgegangen ist [footnote omitted], der Sprachsysteme aufweist, die einander verhältnismäßig ähnlich sind: die vergleichende hamito-semitisch-indogermanische Sprachwissenschaft beschränkt sich also auf den semitisch indogermanischen Vergleich. Aber insofern entstehen für das Fach Probleme, als die älteste belegte afroasiatische Sprache, d.h. das Ägyptische, praktisch unberücksichtigt bleibt". Later he (Loprieno 1982: 88-90) sought the reasons "weshalb das Ägyptische von den Komparatisten so wenig

cognates merely and by any means in two branches: Semitic and Egyptian,[6] which has long been stimulated by the misconceived preconception of both's close kinship as the only two

oder so oberflächlich in den Sprachvergleich einbezogen wird. Das hat m.E. zwei hauptsächliche Ursachen: (a) Kritik von 'innen': die wenigen Ägyptologen, die sich vorwiegend auf das Terrain des Sprachvergleiches vorgewagt haben, haben es nicht erreicht, die im Fach gegen ihre Untersuchungen erhobenen Bedenken völlig auszuräumen, wohl wegen einer gewissen Unaufmerksamkeit gegenüber den historisch-philologischen Problemen und einer übermäßigen Beachtung der rein phonologischen Entsprechungen ...; (b) Kritik von 'außen': die Einbeziehung des Ägyptischen in die sprachvergleichende Analyse benötigt philologische Kenntnisse, die dem allgemeinen Hamitosemitisten nicht geläufig sind. Es geschieht ... mit dem Ägyptischen genau das, was ... auch mit dem Akkadischen passiert, einer Sprache, die innerhalb der semitischen Sprachwissenschaft weniger berücksichtigt wird als etwa das Arabische oder das Hebräische, zweifellos wegen der innersprachlichen Probleme philologischer Natur [footnote omitted]. Mit anderen Worten: Nur dem Ägyptologen bzw. Assyriologen kann es gelingen, das von diesen Sprachen gebotene Material für die Zwecke des Vergleiches zu benutzen, da er als einziger imstande ist, mit dem ... textkritischen Aspekt zurechtzukommen." Similarly to Meltzer's report (above), the appraisal by W.A. Ward (1985: 232) sounds a bit optimistic and misguided about facts: "Egypto-Semitic studies have not lain dormant since the major word-lists appeared and a great deal of work has been done ... in its relation to the much broader field of Afro-Asiatic." Not at all. A great deal of work has not been done and so no "major word-lists" of Egyptian and all the other AA branches had been available until the 1980s or even later.

[6] This out-dated Semitocentric trait of this trend was at last critically addressed by some scholars toward the turn of the 1970s and 1980s like G. Conti (1978: 2-9, §2) who devoted a whole chapter in his book to a thorough (and perhaps most detailed) analysis of the research on "L'egiziano come lingua semitica", which, however, was immediately followed by his chapter on "L'egiziano come lingua camitosemitica" (Conti 1978: 9-13, §3), which testified to this author's exceptionally wider range of outlook on the whole AA domain (so much unusual in the Egypto-Semitic "old school"). So was done by G. Garbini (1978: 48, §3) too, who, examining "La 'semiticità' dell'egiziano", stated that "dai tre settori di indagine in cui si è sviluppata la comparazione egitto-semitica, e cioè la fonologia, la morfologia e il lessico, emergono risultati contrastanti. La fonologia presenta diverse difficoltà, ma non insormontabili; la morfologia porta ad una quasi identità di forme; il lessico, infine, mostra una sostanzale cesura tra egiziano e semitico: i termini comuni sono pochi, e questi pochi appaiono spesso in egiziano trasformati da mutamenti fonetici estranei al semitico. ... Se, tuttavia, attraverso la comparazione, poniamo a confronto il sistemo consonantico che stava alla base dell'egiziano con quello che stava alla base dei diversi gruppi semitici, possiamo constatare una fortissima affinità tra i due ... Ciò detto, la comparazione egitto-semitica ci si presenta in questa situazione: la fonologia e la morfologia dell'egiziano si identificano quasi con quelle delle lingue semitiche; il lessico è quasi completamente estraneo al semitico." Garbini (1978: 52, §5): "Se volessimo applicare un criterio rigidamente linguistico, mi pare difficile negare all'egiziano un 'certificato' di totale semiticità: la singolare situazione del suo lessico, rispetto a quello della altre lingue semitiche, mi sembra pienamente giustificata delle vicende storiche su cui ci siamo soffermati. Se però avremo incluso l'egiziano tra le lingue semitiche, ho il forte sospetto che dovremo ben presto includervi anche il libico-berbero e probabilmente, un po' più tardi, anche buona parte del cuscitico: vale a dire che saremo costretti a trasformare la famiglia semito-camitica in una famiglia semplicemente semitica." E. Meltzer (1979: 465-466): "if reconstructions are to have any validity, it is imperative that they be made on the basis of all available evidence. There are too many cases in the Egyptological literature in which scholars cite three three or four languages representing one or two of the other sub-families of Afroasiatic and think that they are providing an adequate basis and justification for a reconstruction. [footnote omitted] When dealing with as large, widespread, and diverse a group of languages as Afroasiatic, this is simply not viable. ... Along with this selective attitude toward reconstructions, scholars involved in Egypto-Afroasiatic studies have also tended to make highly impressionistic assertions regarding the relative closeness of the relationships between Egyptian and the other respectiveve branches." Elsewhere, Meltzer (1979: 469) says: "There is a tendency to bias these comparisons toward Semitic, to form an idea of the proto-language modeled on a particular group of daughter languages. One in effect compares Egyptian with Proto-Semitic rather than Proto-Afroasiatic. This tendency to see in one daughter language or sub-family an approximatimation of the original state in the proto-language is something which also influenced early work in the Indo-European field ..." G. Roquet (1982: 17, §5, fn. 1): "Ce «sémitocentrisme» sélectif de la comparaison et de la reconstruction – qui déborde largement le domaine du

AA branches with ancient attestation.[7] This is due to the fact that it has always been exclusively pursued by Oriental philologists with an unchanged background of either classical egyptology or of Semitic studies and with changing linguistic skills, who have usually been fundamenatally and generally unfamiliar with the progress and all the methods of the post-Greenbergian comparative AA linguistic domain.[8] Therefore, the seemingly never-ending story of this all the more desperately introverted and fossilized Egypto-Semitic trend has been surviving even into the new millennium, as an anachronistic relic from the beginning

lexique comparé de l'ancien égyptien – est critiqué par Meltzer ..." A. Loprieno (1982: 87) too demanded "eine Hamitosemitistik, der eine gründliche Auseinandersetzung sowohl mit dem Ägyptischen als auch mit den ältesten semitischen Sprachen (etwa dem Akkadischen) zugrundeliegt, denn: (1) diese Sprachen lassen es zu, daß man sie in eine historische Beziehung miteinander setzt, da sie nich durch Jahrtausende Sprach- und Kulturgeschichte getrennt sind, wie es hingegen für das Berberische oder das Tschadohamitische (sic) der Fall ist." What an ill--founded prejudice about the alleged, but nowhere demonstrated close cognacy of Akkadian (and Semitic) and Egyptian (cf. contra, e.g., Takács 2013: 142) and the equally only supposed cultural and linguistic distance of the pharaonic world from Chadic (cf. contra Takács 2020: 72) so baselessly, without having first prodoundly examined hundreds of Egypto-Chadic cultural isoglosses! Still, Loprieno (1982: 90) demanded "eine Neugestaltung der Hamitosemitistik aufgrund des ägyptischen (bzw. des akkadischen) Materials hinzuarbeiten, denn eine von diesen Sprachen ausgehende Neugestaltung ergibt sich aus der Notwendigkeit der historischen [footnote omitted] und der philologischen [footnote omitted] Betrachtung nicht nur in der innersprachlichen, sondern auch in der vergleichenden Sprachwissenschaft." P. Vernus (2000: 190-191, §21 and fnn. 188-189) only refuted extremists like those maintaining Egyptian as a Semitic language: "Certains ont exagéré les apparentements jusqu'à vouloir faire de l'égyptien une langue sémitique[188] [fn. 188: "Certains ont été jusqu'à situer l'égyptien à l'intérieur du sémitique, par example J. Vergote (1975)."], ce qu'il n'est assurément pas; d'où le recours systématique et quasi exclusif au sémitique dans les études comparatives de l'égyptien. Ce parti pris a suscité des réactions dénonçant le « sémito-centrisme »[189]. [fn. 189: "E.S. Meltzer (1979), p. 469; G. Roquet (1982), p. 17."] ..." Still, Vernus (2000: 191, §21) too was convinced about the tightest cognacy of Egyptian exclusively with Semitic (and only) among all the AA branches: "Tout en rejetant les excès sémitocentristes, comment ne pas reconnaître que c'est bien avec le sémitique que l'égyptien présente les rapports les plus étroits, et depuis longtemps?" From this standpoint, the only significant exception seems to be W. Vycichl (with minor excurses into Beja and Berber), whose originality was far--fetched by W.A. Ward (1985: 232): "Two of the leading scholars of the present day ... Vycichl (1958) and Rössler (1971) present new approaches to the whole problem, my objections to the methodology used remain unchanged." What is indeed true about this statement is Vycichl's enormous output in terms of quantity and solidness, albeit all this was done in the frames of a traditional theory.

[7] Although the Egyptian verbal and nominal derivational morphology shares in many ways the same apophonical principle with Semitic and Berber and so these three branches may indeed be classified in a common NAA block (Takács 2015a: 12-13), this is by far not valid from an etymological standpoint about Egyptian significantly differing from the close Semito-Berber lexical affinities. A substantial majority of both the core and cultural lexicons in Egyptian, which simply cannot be understood from the rest of NAA (however desperate and far-fetched etymologies have been forged), displays astonishing affinities with SAA in general in the light of my current researches into this hardly explored domain (see the issues of the "Layers" series by Takács from 2015b, 2016a, b, c), let alone for the peculiar Egypto-Chadic isoglosses in the cultical and agricultural terminology.

[8] So, the words of E.S. Meltzer (1979: 465) on this sensitive comparative matter sound rather as an idealistic dream of desires than a genuine reality based on facts: "We are now seein (sic) more application in our field of ideas formulated in general linguistics, including transformational grammar. ... Of course Egyptologists should try (sic) to make use of whatever procedures will help them to elucidate the ancient Egyptian language." This had certainly not happenned by his day to help Egyptian linguistics get back integrated in modern AA comparative research. Revealing is what Maltzer (l.c.) had to say in his next clause: "but in so doing there is a danger of expecting a given theory to provide a panacea which will solve all of our linguistic problems, and of applying a line of research without seeing clearly all of the preparatory steps ..., or all of the corollary factors which make it necessary to qualify it."

of the 20th century, with an old aversion towards SAA,[9] repeating itself in egyptology from generation to generation,[10] whose history has not yet been written.[11]

Outstanding figures of the post-war "old school"

2.5.1. P. Lacau: although the overwhelming majority of his activities in the classical egyptological domains falls within the pre-war decades of the "old school", his works touching Egypto-Semitic only appeared towards the last decades and the end of his career, well after the culmination of that trend: his 1954b study examined some shared morphological and lexical items in both branches, introduced by Lacau's (1954b: 286) ingenious, but mostly ignored observation on the sharp objection to the ill-founded "Egypto-Semitic" preconception.[12] His volume *Phonétique égyptienne ancienne* (1970b),[13] which has equally been little quoted ever since, was composed of chapters on diverse questions of internal evolution with a permanent outlook into Semitic and numerous logical and valid Egypto-Semitic cognate pairs. It was already Lacau (1970a: 30, fn. 2), in his equally little echoed pioneer study of *Les noms des parties du corps en égyptien et en sémitique* (1970a),[14] who has observed and

[9] Cf. the unusual (nowhere else attested) bizarre collective abbreviation of the SAA branches in a strange grouping "*kot.*" (= kuschitisch-omotisch-tschadisch") instead of, say, a more correct "*kotsch.*", throughout the paper by J. Osing (2001) from Berlin. He did not find it necessary to explain on which scientific basis he separates out just these three branches from the rest of the Afro-Asiatic phylum, let alone why he has chosen as abbreviation just "*kot.*" carrying a rather unpleasant connotation in German. Equally disturbing is Osing's fictitious and long out-dated term "hamitische Sprachen" (2001, col. 569), which hardly anybody maintains in recent AA studies. One wonders if he has heard of the fundamental works by J.H. Greenberg and I.M. Diakonoff regarding the new classification of the Afro-Asiatic languages in 5 (or 6) major branches, who demonstrated the baselessness of the untenable term "Hamitic". There was no "Hamitic" unity and there were no "Hamitic" languages.

[10] One can only agree with the sharp-sighted contemporary assessment by W.A. Ward (1985: 232) on the state-of the-art: "... of all areas of research in ancient Near Eastern studies, Egypto-Semitic is perhaps the one most susceptible to subjective opinion. ... It is a field of research where hard facts are difficult to isolate and where at least some hypotheses and conclusions depend on the personal inclinations of the individual scholars."

[11] The chapter "(Hamito)semitische Lautgleichungen: Wissenschaftsgeschichtliche Einleitung" by W. Schenkel (1990: 41-43, §2.1.3.1), due to being written for students of Egyptian, so probably therefore (?) full of awkward gaps, is listing at this point (p. 42) just the GÄSW by "Franz Calice" (sic for F. von C.!) 1934 (sic for 1936!), Vycichl 1958, "vor allem aber" Rössler 1971, "der die Vergleichung einer ... strengeren Handhabung (sic!) zuführt ...", although the latter does not even belong to this trend (cf. §4 below). That's all! "Was das weitere Feld der äg.--hamitosemitischen Gleichungen angeht, steckt die Forschung noch in den Anfängen."

[12] Lacau's (1954b: 286): "tandis que la famille des langues sémitiques conserve une remarquable unité et une surprenante fixité, l'égyptien au contraire, dès l'époque très ancienne ..., diffère déjà beaucoup de la structure sémitique. Dans la suite, au cours de son histoire ..., nous assistons à une évolution de sa morphologie et la phonétique qui l'ont séparé plus nettement de l'ancêtre commun." What a sharp-sighted statement (esp. for an egyptologist) with an insight (valid even today) among those only machanically repeating the old common place on Egyptian as "a Semitic language"!

[13] In fact, a volume of his collected papers written and published (if at all) in the 1940es.

[14] Posthumously published (ed. by first O. Guéraud, then by J. Yoyotte and G. Roquet), cf. the "Note préliminaire" (pp. ix-x) by J. Vandier: "Lorsque Pierre Lacau disparut, il y a sept ans, il laissait plusieurs manuscrits ... L'ouvrage qui nous est livré aujourd'hui est une mise en forme des innombrables notes accumulées au cours d'une carrière aussi longue ... L'auteur n'a pas eu le temps de compléter sa documentation, et l'effort des éditeurs

described for the first time "une série d'organes qui ont eu ainsi un double nom" in the Egyptian lexicon.[15] This mostly binary opposition of the Egyptian anatomical terminology in a surprising distribution was dealt with again and reaffirmed a few decades later.[16] Remarkable is another sharp-sighted conception by Lacau (1970a: 150) on the striking opposition between the dynamic linguistic change in Egyptian until Coptic (which I can fully agree with) and the conservativism of Semitic,[17] where he was perhaps not fully correct in all its aspects.[18] Still, the idea itself in the evident general trends is really striking.[19] Both of the

a consisté, non pas à se substituer à l'auteur dans cette tâche, mais à présenter, d'une manière claire l'essentiel de ce que Pierre Lacau avait apporté de nouveau sur cette question."

[15] Elsewhere, Lacau (1970a: 92) described this puzzling phenomenon: "Quant à l'existence simultanée de deux désignations pour un même organe, nous en avons d'autres exemples en égyptien" and "un des deux noms devient alors une survivrance d'une appellation primitivement différente de l'autre nom". Lacau has already put the unanswered question: "Bien d'autres parellélismes entre mots pratiquement équivalents demanderaient à être étudiés. Quels sont les sens premiers et la différence qui peut subsister encore entre *ḏ.t* et *nḥḥ*; *ꜥ3* et *wr*?"

[16] E.g., in the EDE I 36-38, then in a special series of studies also reaffirming the assumption that one member of these synonymous pairs was usually clearly reflecting a Semitic word, whereas the other one, on the contrary, appeared to have a non-Semitic cognate solely attested in some of the African branches of the Afro-Asiatic (Semito--Hamitic) language family. The series is entitled "Layers of the Oldest Egyptian Lexicon", whose so far following parts are published: I: Head, hand (Takács 2015b: 85ff.), II: Head and neck (Takács 2016a: 59ff.), III: Upper torso (Takács 2016c: 275ff.), VI: Back parts (Takács 2018a: 269ff.), VIII: Numerals (Takács 2016b: 119ff.).

[17] Contrary to Egyptian, he says, "pendant le même temps, au contraire, le groupe sémitique tout entier (sic!) a conservé une immobilité surprenante. L'arabe parlé d'aujourd'hui a la même constitution que l'accadien de 2.500 ans avant notre ère."

[18] Lacau (l.c.) is presumably erring in generalizing this immobility onto the whole Semitic branch (cf., e.g., the highly mobile development of Hebrew until Modern Ivrit, let alone for its as innovative consonantism as that of Old Egyptian!), but he is certainly right about the consonantal archaisms of Arabic, which by far exceed Akkadian in this respect! Surveying the diachronic stages of "Hamito-Semitic" and the state-of-the-art in Semitic, A. Zaborski (1984: 180, also fn. 3) could only conclude that "most if not all Semitists agree that Akkadian and Classical Arabic represent the most archaic or conservative stage [footnote omitted] and nobody would compare Akkadian ... directly with e.g. Amharic or Mandaic", whereby he was objecting to "a tendency, actually a fashion, to consider Akkadian as the most archaic Semitic language and to reject or underestimate the archaism of Arabic", rightly pointing to that "Akkadian, as it seems now, ... is more innovating as far as the phonology is concerned", whereas "Arabic ... has in the best way preserved the older phonological system and represents also some other archaisms in comparison with Akkadian ..." Later, Zaborski (1994: 236) confirmed: "Since more than a quarter of century there has been a very strong tendency to consider not Classical Arabic but Akkadian as the most archaic Semitic language mainly on the basis of the ... verbal system which has cognates in other peripheric Semitic languages i.e. in Ethiopic and in Modern South Arabian group on the one hand and in Berber on the other. West Semitic is usually considered as less archaic because of its alleged loss of the geminated present ... and because of the introduction of the suffix-conjugated perfect as the main form expressing anteriority and the past." Such a position was opposed by G. Takács (2013: 142) also from the standpoint of the historical consonantism about "Old Akkadian ... having incomparably many more consonantal innovations (shifts, mergers, losses) of Proto-Semitic than in the ultraconservative Modern South Arabian languages or Arabic and possibly Ugaritic", while similar phenomena are to be observed in the other ancient AA branch too: "... quite close to the most innovative Berber consonantism, Old Egyptian appears penultimate according to our evaluation, which once more contradicts the misleading commonplace that ancient languages would necessarily retain the supposed proto-phonememes better than modern languages of the same family do, which evidently does not work in the case of Old Akkadian either".

[19] I have myself also long been obsessed by the exciting puzzle of the similarly strange contrast between Egyptian as the only AA branch represented by one single not divided language continuum over long millennia and all the other branches, which have long desintegrated into subbranches each, uncountable daughter languages. What may hide behind this evident fact, has certainly to do with the mysteries of Egyptian ethno- and linguogenesis

afore-mentioned observations make me regard Lacau as by far the most originally thinking genuine mind of pre- and post-war Egypto-Semitic "old school", void of a fossilized preconception (otherwise so typical in this trend), even if he too was only working with the Semitic *comparanda* with no presise ideas about the other (usually labelled "African" or "Hamitic") component of the Egyptian lexicon that he was so ingeniously able to surmize at least. Lacau's vision of Semitic, Egyptian and Berber as tightly connected branches (as opposed to "Hamitic")[20] has long been supported and can also today be approved.[21] Lacau's Egypto--Semitic anatomical etymologies were evaluated by G. Roquet (1968-9) in an annotated list,[22] which the former scholar had classed according to their likelihood in F. von Calice's (GÄSW) manner.[23] G. Garbini (1971a) presented a very profound review of Lacau's (1970a)

(on which I have been working since 2012, see my "Layers" series) and the ethnically little explored history of Holocene Sahara, whose research is still in its infancy (whose materials started to be processed in my AA library in early 2020). What is evident even in this gigantic obscure prehistoric scenario is the apparent centripetal dynamism (culminating in the long unification process of the Neolithic Nile Valley peoples during the 4th mill. BC) permanently working throughout the ages of the Egyptian *Sprachgeschichte*. The rest of the AA branches, in turn, has followed just the perfectly opposite "normal" centripetal development, usual in the history of all kinds of language families, by diverging into new and new sub-units from the common ancestral core. In other words, the strangely permanent unity of Egyptian language history (in spite of the two parallel sociolects detectable from the Old and Middle Kingdoms and culminating in Neo-Egyptian and the very late Coptic dialectal differentiation) appears to point to a strong centripetal power issuing from its multinuclear linguogenesis in the Neolithic Nile Valley, the archaeologically clear refuge destination of several archaeological communities (including diverse splinters split off from a few non-AA ancestral communities, cf. Takács 1999b; EDE I 38-46) immigrating from diverse directions of the surrounding limitless Saharan areas during the long centuries of the starting process of Saharan desiccation, whereas the permanent diversification dynamism in the rest of the AA branches suggests a basically mononuclear linguogenesis normally resulting in diverse sub-units splitting off the core and drifting away thereof, once the ancestral core community extends beyond its capacities for different reasons (climatic, economic, population), which neatly agrees with the enormous territorial spread of the AA peoples from the supposed early Neolithic Levantean (PPN) homeland (Militarev passim) to such extremities like eastwards into Mesopotamia (Akkadian), westwards until the far reaches of Mauritania (Zenaga = West Berber) and the Canarian (Guanche Berber), and southwards down to the equitorial border zone of Kenya and Tanzania (Southern Cushitic).

[20] Lacau (1970a: 151): "Peut-on conclure qu'il a eu une période de vie commune entre le berbère et le vieil--égyptien, après leur séparation de l'ancêtre commun d'où sont sortis l'égyptien, le sémitique, le berbère, et le chamitique?" As for the common Egypto-Berber lexicon, he surmized "un vocabulaire emprunté en partie aux deux langues qui ont pu être parlées antérieurement au berbère, dans l'immense domaine géographique de la Berbérie ..."

[21] So it was conceived, e.g., by Garbini (1971a: 131) too: "L'interrogativo attenua fortunatemente un'affermazione alquanto azzardata, desunta dall'osservazione di alcuni elementi communi all'egiziano e al berbero ma estranei al semitico; più storicamente, la maggiore affinità riscontrata in questo caso tra l'egiziano e il berbero si spiega con i più stretti contatti che in età preistorica e in età storica queste due lingue hanno avuto tra di loro rispetto al semitico." For the the history of the theory on grouping Semitic, Egyptian and Berber in a tightly connected NAA block, cf. Takács 2015a passim.

[22] His paper appears to be a rare instance of a review appearing still before the reviewed work itself was published, although it is not entirely a review of Lacau 1970 *stricto sensu*, which is due to the fact that, as Roquet (1968-9: 88) writes, the editor of Lacau's posthumous volume, "M. Yoyotte, Directeur d'études à l'École Pratique des Hautes Études, Vème Section, a bien voulu me charger de présenter au G.L.E.C.S. un aperçu des comparaisons proposées par l'auteur."

[23] Roquet (1968-9: 88-90): "A.- Nombre de rapprochements sont des rappels d'opinions anciennes consignées çà et là dans la littérature égyptologique. ... L'ensemble des ces rapprochements ne est pas neuf. Néanmoins, il est bon de voir le parti qu'un tire l'auteur du point de vue de l'égyptien tout au long de l'ouvrage et notamment de

volume on the anatomical terminology. First, Garbini (1971a: 131-135) discussed such theoretical issues of Egypto-Semitic as genealogy,[24] root structure,[25] comparative phonology.[26] Then, Garbini (1971a: 135-140) assessed some individual etymologies in the light of an original and souvereign argumentation,[27] which makes his critical list and careful conclusions[28] so much precious.

2.5.2. W. Vycichl (1909-1999)[29] represented the bridge between the Viennese "Hamitology" and the *Sackgasse* of surviving "old school" Egypto-Semitic studies in the second half of the 20th century: having left the intelectually inspiring cradle of AA linguistics in the Viennese *Doppelinstitut*, where he was also trained, he continued the major part of his extraordinary research career after WW II for another half of century. Namely, first in Paris (1950-1960s), the other AA cradle (GLECS), and then finally pretty isolated in Geneva (1970s-1990s). During these decades, after a longer pause in the 1940s in his publication activity, having scattered uncountable articles abounding in Semito-Egypto-Berber parallels, he proved to be

considérer ses réflexions sur les renouvellements du lexique au cours de l'histoire de la langue ... B.- Sont donnés avec réserve les rapprochements suivants: ... C.- Quelques rapprochements, nouveaux autant qu'on puisse savoir, méritent de retenir l'attention. ... D.- Cette présentation des comparaisons rappelées, proposées ou suggérées par Lacau ne se veut en aucun cas critique et exhaustive, rappelons-le. Elle est schématique et doit inciter à prendre connaissance de l'ouvrage où les questions de graphie, de phonétque et de lexicologie comparée sont largement débattues pour justifier ou écarter les rapprochements et les intégrer dans un ensemble beaucoup plus vaste."

[24] Basically confirming Lacau's position on the matter, Garbini (1971a: 131) too believed in a NAA macro--unit comprising Semitic, Egyptian and Berber.

[25] The phenomena issuing from a common biconsonantism were superficially surveyed by Garbini (1971a: 132) in the frames of an ancient affinity with Indo-European (dating back to Levantean neolithic), so popular in Italian Oriental studies.

[26] On the diverse segments of a supposed common Semito-Egyptian consonantism, Garbini (1971a: 132-135) was dwelling pretty lengthily: all these matters were surveyed in the spirit of the pre-war core theory manifested in the ESS and GÄSW.

[27] Garbini's insights, even though his appraisal was eventually supportive for most of the cases, yielded valuable addition to Lacau's etymologies. E.g., when Lacau intuitively surmized the ultimate etymological *liaison* between OEg. *bw "foot" (only attested as a hieroglyph for foot with the phon. value b) and LEg. bw (negation), even Garbini's (1971a: 136) negative appraisal ("Le due forme sarebbero pertanto semplici omografi.") carries an asset with *addenda* (Sem. *bal "non" vs. Soqotri-Cushitic background of Sem. *$\sqrt{s_2{}^{\varsigma}p}$ "foot") useful for the future research.

[28] Garbini's (1971a: 140-141) final word on this volume: "In sede di conclusioni, il Lacau rileva il «ringiovanimento» subito dal lessico egiziano, in rapporto a quaello semitico, nel settore studiato. Il fenomeno non è nuovo, e rientra nel quadro generale della lingua egiziana la quale, nonostante la sua antichità, presenta numerose innovazioni rispetto al semitico e alle altre lingue chamitiche ... Le innovazioni egiziane, pur ponendosi su di un altro piano, non possono venir considerate diverse da quelle che ritroviamo in accadico: in entrambi i casi si tratta di lingua cronologicamente arcaiche ma espressioni di due grandi civiltà, e per ciò stesso di lingue fortemente innovatrici. Ritenere innovatrice una lingua come l'accadico non significa ovviamente affermere che l'arabo sia «arcaico»: la prima è una lingua arcaica fortemente rinnovata, la seconda è una lingua recente con tendenze conservatrici. È dunque con une certa sorpresa che il lettore del libro del Lacau, dopo aver avuto la possibilità di ammirare la profonda dottrina egittologica, l'acutezza delle ipotesi e la prudenza dei giudizi dello studioso."

[29] Cf. Takács 2006d: 254ff. On his person see Takács 2004: ix-xi.

the most productive[30] and convincing researcher of the "old school" ever. Still, aside from some significant albeit occasional rare insights into Beja and Hausa affinities, he was basically focusing in all his life dominantly on Semito-Egypto-Berber etymologies which, of course, he usually elaborated in a methodologically enchanting and almost flawless[31] manner. Amidst the multitude of his works in this domain may we single out just some. Among his numerous papers on Egypto-Semitic lexical comparison, a most remarkable one is beyond any doubt his own "Grundlagen..." from 1958 (re-evaluating this corpus quarter of a century after F. von Calice's 1936 *Grundlagen*...), in which, after having discussed methodological questions of this comparative domain, he has divided his material in the manner of von Calice. First – after ESS, GÄSW, Vergote 1945 – he too once more laid down the (mostly the same) fundaments of consonantal matches in the two branches based upon an abundant lexical evidence (under §II. "Wortliste A", pp. 370-379),[32] then, in a further comparative wordlists, he put forward 76 (mostly new) etymologies in a masterful treatment.[33] Another outstanding study of his, entitled "Is Egyptian a Semitic language?" (Vycichl 1959a), reveals his unchanged vision on a tight Semito-Egyptian unity and his stubborn reluctance as to exploring in Egyptian the SAA segments (labelled by him as "Hamitic" in an outdated manner).[34] Surveying comparative morphology, he did his best to establish direct

[30] Which W. Vycichl (1959a: 38) quantified in the first two decades of his own research (following the great syntheses of the "old school" in the 1930/40s) as follows: "A hundred new etymologies were published recently by the author of these lines."

[31] Perhaps once exception. Having advanced his methodological admonitions about AA comparisons in general, J. Tubiana (1974: 80, §4) says: "Il est très imprudent de se risquer à des comparaisons entre langues dont on n'a pas une connaissance directe, par l'étude et par la pratique. ... vérification soigneuse de la réalité des faits et de la justesse de leur interprétation." Then, on pp. 80-85, §5, he launched into a lengthy critical analysis of the falsely segmented Amharic and other Semitic *comparanda* in W. Vycichl's (1952) paper on Punic influence on Berber with the "conclusion, quoi qu'il en soit des autres formes évoquées ..., l'amharique reste en dehors de la comparaison ...".

[32] Vycichl (1958: 370): "Die folgende Liste enthält bereits bekannte Etymologien, die wohl soweit als gesichert gelten können, daß sie die Aufstellung von Lautgesetzen ermöglichen. Sollte sich in Hinkunft die eine ... Wortgleichung als unrichtig erweisen, so wird das am Gesamtergebnis nichts ändern."

[33] On his "III. Wortliste B" (pp. 379-401) Vycichl (1958: 379) says: "Diese zweite Wortliste enthält Etymologien, die hier eingeheneder besprochen werden. Es handelt sich teils um schon bekannte Gleichungen, bei denen hier neue Gesichtspunkte aufgedeckt werden, teils um völlig neues Material."

[34] Which, in his words (Vycichl 1959a: 27), was usually "explained by a blend of an older autochthonous element of African origin, called Hamitic, and a younger Semitic wave. This opinion can hardly be maintained in view of the facts we possess now. ... recent studies have shown that not only do some grammatical features of Egyptian have a parallel in Semitic, but that the Egyptian grammar as a whole (sic!) is derived (sic!) from Semitic – with the exception of a few (sic!) points still obscure – and, ... that the Berber languages ... are, in the opinion of ... Rössler purely Semitic. On the other hand it has been impossible to find grammatical forms ... that could be called Hamitic. ... Under these new points of view, Egyptian is not situated as hitherto, on the **borderline** of the domaine of Semitic languages but at its **centre**. Obviously, nobody will **a priori** deny the existence of a non-Semitic substratum in Egyptian but as a matter of fact we cannot prove it from the evidence we possess. Even great lexicographical differences between Egyptian and Semitic are not necessarily the result of older, pre-Semitic elements." Although, "at first sight, the phonetic systems of Egyptian and Semitic differ: instead of the 29 Semitic consonants as they occur in South Arabic, there are but 24 Egyptian consonants, three of which are obviously secondary (*ḥ*, *j*, *č* as palatalized forms of *ḥ*, *g*, *ḫ* (sic: instead of k)). Though some characteristic sound are found on both sides (*ś*, *ʿ*, *ḥ*, *ḫ*, *q* or *ḳ*), not less than eight primitive sounds of Semitic are lacking in Old Egyptian."

matches even in the Egypto-Semitic verbal system (Vycichl 1959a: 30-37), which can never be fulfilled given the fact that both systems only agree in terms of their shared apophonic nature but not in the details of the respective morphological sets. Therefore any attempt at demonstrating Egyptian "as a Semitic language" is *a priori* doomed to certain failure. This chapter was followed in the same manner by an evaluation of the comparative vocabulary (Vycichl 1959a: 37-40) where, however, he too had to realize the substantial difference between the two branches except for some basic vocabulary.[35] This list of meanings non-compatible in Egyptian vs. Semitic, esp. in the semantic domains of social life and agriculture,[36] is not to be fully approved in this form in the light of recent Muscovite results in reconstructing PAA cultural terminology Vycichl (1959a: 38) could not have known yet known of.[37]. Instead of admitting the poor outcome and drawing the due conclusions of his own demonstration, he blindly repeated *a priori* set stereotypes on Egyptian as Semitic.[38] His view on

[35] Vycichl 1959a: 37: "In spite of some common features, there seems to be a considerable difference ..."

[36] Typically of the "old school", Vycichl (1959a: 38) considered the lack of shared Neolithic terminology in Egypto-Semitic as indicative in itself not even posing the obligate question what if this segment of the Egyptian lexicon turns out to be utterly SAA: "When speaking of Egypto-Semitic etymologies, we obviously understand thereby only the primitive common elements ... and not loan words of the historic period ... This means that we have to exclude all terms created or introduced after the separation of **Egyptian and the other** (sic!) **Semitic languages**. So we cannot expect to find common names for the metals (gold, silver, iron, copper, lead, etc.) as the separation had taken place in neolithic times, nor words for 'knife', 'sword' or 'chain'. There was no common word for 'town', 'king', 'plough', 'cart', 'wheel' nor for 'camel', 'horse', 'cat', 'cock' and 'hen'."

[37] Cf. the milestone studies in this sphere by A.Ju. Militarev (1983, 1984, 1989, 1990a, b) and O.V. Stolbova (1997, 2005), also the joint paper by both Militarev and Stolbova (1990) as well as by V. Blažek & C. Boisson (1992).

[38] Thus, for Vycichl (1959a: 38), "in order to illustrate the language relationship in a limited space, it has seemed advisable to chooses the names of the parts of the body together with the corresponding verbs. These words belong to the most conservative elements of the language and reflect to a high degree the relationship of related languages." Vycichl (1959a: 38) was, however, apparently and rightly, disturbed by the poor outcome gained in this domain also for demonstrating anything about Egyptian as "a Semitic language", since he added a very poor argument to explain it: "it must be borne in mind that geographical reasons can to some extent be invoked for a certain homogenity on the Semitic side where incessant contacts favours a levelling of the terminology." Equally disappointing I find the way how Vycichl (1959a: 40), in the end of his carefully selected thin comparative wordlist, felt convinced enough to claim: "The above 32 etymologies show a narrow relationship between Egyptian and Semitic." Still, he failed to confront a whole number of Egypto-Semitic anatomical terms, which he thought sufficient to be dealt with in just a few words: "Obviously, some of the most common Semitic terms are lacking, as ..." The list of Semitic words was, however, not placed in a detailed etymological context here. Similarly, Vycichl's (1959a: 40) overall conclusions echo the same partial ignorance even of the facts issuing from his own results: "To judge from the foregoing comparisons there seems to be a close relationship between Egyptian and Semitic. Almost all (sic!) grammatical elements ... of Egyptian can be found in Semitic languages." He was undisturbed to acknowledge the "(h) differences in words of common usage: ... the numerals for 1, 3, 4, 5, 8, 9, 10, 20, 100 and 1000 differ, there is not one common preposition in Egyptian and Semitic, there are hardly any common names for domestic animals, plants, weapons, etc. However, it does not seem as if the differences listed under (a)-(h) could be explained as survivals of a pre-Semitic substratum in Egyptian." Overconfident about the not too impressive isomorphs, Vycichl (1959a: 41) was yet content: "On the contrary there is in all likelihood no essential differences (!) between Egyptian and Semitic, at least regarding grammar." Still, on the following page (p. 41) he returned to (h): "The most difficult problem is in my opinion the question of the vocabulary (h). Some years ago I tried to collect words common to Egyptian and ... Berber ... but not found in Semitic (ZDMG, 1952). Still ... the fact remains that a great many Egyptian etymologies show no relationship with Semitic. (It is also possible that these words existed once at a very early stage in Semitic and were lost, while they were retained

the Egypto-Semitic prehistory was objected by W.A. Ward (1985) with skepticism even about genetic cognacy in general.[39] Another fundamental piece of "Studien der ägyptisch--semitischen Wortvergleichung" by Vycichl (1959b), in its first part, presents his own system semantical vs. phonological criteria of evaluating Eg.-Sem. lexical matches by ranking in a ball system yielding a maximum of 6 or better 3 + 3 balls,[40] and, in the second part, he published 12 new etymologies with a convincing argumentation. This direction of his research was finally summed up in Vycichl's (1990) *magnum opus – La vocalisation de la langue égyptienne*, tome I[er], *La phonétique*,[41] which has however hardly brought any substantially new results other than those to be learnt from his previous studies and the volume by J. Vergote (1945). Already W.A. Ward (1985: 232) has expressed his partly right doubts (as not the only one, cf. below) about Vycichl's usual method of working solely with Arabic

in Egyptian). So it is clear that Egyptian got its vocabulary or at least a considerable part of it, not from a pre--Semitic tongue, but from a language where the principle of the three root consonants was fully developed as is the case in Semitic itself." The theoretical debate by Vycichl (1959a: 41-42) on the Semitic nature of Egyptian is also revealing: "As the relationship between Egyptian and Semitic is established now in the main outlines, we can examine the question whether we are are entitled to call Egyptian a Semitic language or not. Frankly speaking, in spite of all the parallels existing between Egyptian and Semitic, I feel some hesitation in doing so. **This is certainly not because of the vocabulary**. Neither is English is a Roman language in spite of its numerous loanwords nor in modern Persian and Arabic dialect. On the other hand, the term **'Semitic' comprises**, in my opinion, somewhat more than a set of grammatical elements and 200 or 300 etymologies. It implies rather a certain **unity of history, social organization, religious beliefs and civilization** that form a well defined group of tribes and peoples **distinct from the Egyptians**." Vycichl (1959a: 42) thus draw a scheme of a tight but parallel tie of "Pre-Berber", influenced by "Pre-Egyptian" with an impact from "Early Semitic".

[39] Vycichl (1959a: 38) regarded "Egypto-Semitic ..." as altogether "... those lexical and grammatical features common to both Egyptian and Semitic in a hypothetical, pre-literate linguistic stratum" before the "'separation' took place in Neolithic times", which Ward (1985: 232-233) received highly critically: "But the evidence is from the historic period and this immediately presents a problem in methodology. ... The problem is ... partially a chronological one. ... First, we are able to define stages in the lexical relationships between Egyptian and Semitic, partially through differing patterns of phonetic change. Secondly, the farther we get in time from the supposed pre-literate Egypto-Semitic stage, the less certai we can be that lexical comparisons are truly Egypto-Semitic and not simply loan-words. ... This raises a fundamental question: how much of the so-called Egypto-Semitic vocabulary really belongs to prehistory?"

[40] This evaluation system was developed from his principles discussed in Vycichl's (1958: 369-370) first "Studien der ägyptisch-semitischen Wortvergleichung". As summed up by Vycichl (1959b: 71) himself: "Die Sinnziffer ist: 3: wenn die Bedeutung auf beiden Seiten übereinstimmt, 2: wenn ein Bedeutungswandel vorauszusetzen ist, der hamitisch oder semitisch belegt ist, 1: wenn ein Bedeutungswandel vorliegt, der anderswo zu belegen ist. Die Lautziffer ist: 3: wenn alle Konsonanten lautgesetzlich übereinstimmt, 2: wenn eine Unregelmäßigkeit vorliegt (ungewöhnliche Lautentsprechung, Umstellung, Verlust eines Konsonanten), 1: wenn zwei solcher Unregelmäßigkeiten vorliegen: 0: wenn drei oder mehr Unregelmäßigkeiten vorliegen." As a result, this system "der Kennzahlen ... ermöglicht ...: – die annehmbaren Gleichungen (Kennzahl 33) auszusondern, – die unmöglichen Gleichungen (Kennzahl 00) abzulehnen, – in anderen Fällen zu sehen, wo Abweichungen vorliegen und wieweit sie sich von der Norm entfernen, also auch zwei oder mehrere Vorschläge objektiv nach ihrer Wahrscheinlichkeit einzustufen." This rank system was reproduced three decades later also in the chapter "Classification des étymologies" of his volume historical phonology (cf. Vycichl 1990: 14-18).

[41] This volume, in spite of its title, examined both the consonantism and the vocalism of Egyptian, thus an all-round historical phonology was ventured. Only a part of the etymologies was compiled into a wordlist for an Egypto-Semitic comparative phonology (pp. 39-71), but many others are scattered *passim*.

parallels in the Egyptian etymologies.[42] Another rare volume by Vycichl (1983) was his version of a Coptic etymological dictionary (DELC), entirely different from CED and KHW regarding the depth of analyses. Nevertheless, its entries are again full of mostly Arabic (only rarely common Semitic) etymologies to the Egyptian roots which was utmost critically received by P. Behrens (1987) in his review,[43] where, specially focusing comparatistic issues, he demonstrated how much can potentially be contributed to these entry by working beyond Vycichl's usual target domain, i.e., beyond Arabic and Semitic,[44] whence Behrens (1987: 242) rightly concluded that numerous entries "weisen auf die Bedeutung hin die auch **den nicht-semitischen Sprachen des Afroasiatischen** bei der Lösung etymologischer Probleme des Koptischen/Ägyptischen zukommen könnte. Doch VICICHL (sic: VI- for VY-!) **bedient sich dieses Material kaum**." This was a very rare moment where one could see the articulation, *expressis verbis* manifested and etymologically thoroughly demonstrated, on the alarmingly growing distance between the outdated NAA-centric doyen of old/out-fashioned "Hamitology" and the young generation of those very few Oriental (even less egyptological) scholars who were open-minded enough towards the post-Greenbergian progress of our linguistic domain in the SAA branches for exploiting it in studying the puzzles of Egyptian lexicon. Behrens' partly unfair hypercriticism was refuted by R.M. Voigt (1989: 87) arguing not too convincingly with the allegedly uncertain affiliation of Omotic and the doubtful originality of Behrens' Cushitic etymologies.[45] From a personal point of view, it was certainly

[42] As Ward (l.c.) remarked: "Vycichl believes that an Arabic equivalent to an Egyptian word, with no previous attestation in Semitic, is sufficient to establish a cognate. **I do not**, hence our differing views on the value of Arabic is a strong influence on what we accept or reject as viable cognates." The way Ward (1985: 234) argued against Arabic *comparanda* without the evidence or references to Semitological discussions, is however perhaps not fully well-founded: "It is a myth of modern scholarship that Classical Arabic preserves a very old stratum of Semitic so that words found only in this language must have an older history. I cannot accept this. Arabic stands at the end of several thousand years of linguistic development and, while it might preserve some more ancient vocabulary, a large pat of the Arabic lexicon consists of derived terms with no counterparts in the earlier dialects. The Arabic language continues to expand in vocabulary even today so that derived forms which appear in Classical Arabic may never have been used previously." All this stands in clear contrast with A. Zaborski's (1984: 180, fn. 3) arguments for the archaism of Arabic within Semitic. Let alone for O.V. Stolbova's uncounted Chado-Arabic isoglosses (e.g., CLD passim). Objecting to labelling late *comparanda* as cognates, Ward (1985: 234) saw "another facet of this chronological problem" in "'Egypto-Semitic' cognates whee the Egyptian evidence is early, often Old Egyptian, and the Semitic evidence is late, chiefly from Arabic. Even as careful a scholar as Vycichl regularly suggests such cognates, though he himself has stated with reference to comparisons between Old Egyptian and the North African dialects: 'Il est malaisé de comparer un terme égyptien du 3e millénaire avant J-C avec un mot d'une langue moderne dont nous ne connaissons pas le passé' (1972: 87). This is an excellent rule to follow and I would apply it ..." Then Ward (1985: 235-236) critically reviewed some of Vycichl's Arabic *comparanda*, some of which he found either usable (once one manages to explore their entire semantic history) or "some other Egypto--Arabic equations ..., however, ... wrong".

[43] So, Behrens' (1983: 244) hardly flattering *Fazit* is painfully true in general, when he states that "der Autor sich im Bereich des Semitischen zu sehr auf hebräisches/arabisches Material stützt, ... er gesamtmethodisch zu wenig das nicht-semitische Material berücksichtigt."

[44] Beside 2 Ug. > Eg. loanwords (#1, #2), Behrens added a number of attractive Cushito-Omotic cognates to several Egyptian items (#4-#13).

[45] So Voigt (1989: 87) argued *ex cathedra* in an off-hand manner without a sufficient demonstration of all the facts relating to theses allegations: "Die Beispiele, die der Rez. als kognate Wörter des Koptischen vorschlägt, sind vorwiegend kuschitischen und omotischen Sprachen entnommen. Das Omotische ist dabei eine Sprachfamilie, deren genetische Beziehung zum Semitohamitischen noch nicht als voll etabliert gelten kann. ... Bei seinen

a gentleman's gesture, albeit Behnrens' criticism, perhaps impatiently and unjustly far-fetched for Coptic etymology in particular, holds painfully true about the state-of-the-art of Egyptian etymology in general.[46] Vycichl was only seldom extending his enormously fruitful NAA (Semito-Egypto-Berber) comparative researches onto Beja also (with painfully all too few lexical matches though, which he then repeated paper to paper),[47] while he had unfortunately never again returned to his pioneering Egypto-Hausa comparative studies (1934) which stands as an isolated ground-breaking milestone at the beginning of his entire scholarly career. In his paper delivered for the London AA congress (1978), staying within the limits of the NAA block, Vycichl (1984) established morphological analogies of Semitic, Egyptian, and Berber as contrasted by the scarcity of lexical matches, which he explained by an amalgamation of two different "pre-Semitic superstrata" (called "Ifrican" ~ Berber vs. proto-Arabic ~ Egyptian) with a commen local substratum called "Atlantic". In his review on the London proceedings (ed. by J. Bynon), A.S Kaye (1985: 890) did not miss to note how disturbing Vycichl's old-fashioned terminology is.[48] The same criticism of the old "Hamitological" conception was repeated with Vycichl's (1987) paper among the proceedings of the 1983 Marburg AA congress reviewed by A.S Kaye and P.T. Daniels (1992: 436).[49] Towards the end of his unpaired long career, life has shown the gaps in the safest and most reliable production of the "old school" ever, which was beyond any doubt due to W. Vycichl, who secured its enormously fruitful and most impressive survival in his person and its long outdated and belated peak and end in 1999.

2.5.3. J. Vergote: as an outstanding authority of egyptological linguistics, he was specialized on the Egypto-Coptic *Sprachgeschichte* where contributed to comparative Egypto-Semitic phonology and lexicon, albeit he worked primarily with the etymological corpus of his pre-

kuschitischen Etymologien erweckt der Rez. gerne den Eindruck, seine Gleichungen wären neu." Unfortunately, his statments were not demonstrated. The problem is with Voigt's objection, on the one hand, that Behrens' Cushitic and Omotic *comparanda* are perfectly welcome as these have brought in fresh air at last into the AA lexical comparison dominantly based on the NAA branches until then. So it is expressly an advantage to work with the SAA evidence in Eg. etymologies. On the other, Voigt forgot to mention the pure fact that the AA nature of Omotic has been accepted by the overwhelming majority of researchers and was demonstrated by the ground-breaking first monograph by M.L. Bender (1975), which was followed by a number of studies on the subject.

[46] Just as well as Behrens' (l.c.) remark in general when "... hat man einen Überblick über den Stand der Dinge, der vor allem eins zeigt: wieviel im etymologischen Bereich koptisch-ägyptischer Wortforschung noch zu tun bleibt."

[47] E.g., Vycichl 1953a: 157ff.; 1953b: 373ff.; 1960: 252ff.; 1988: 411-430 etc.

[48] Kaye (l.c.): "The final paper, by W. Vycichl, is inappropriately entitled 'Hamitic' and 'Semitic languages': all experts agree there is no such thing as Hamitic. V(ycichl) reiterates Diakonoff's point that the field desperately needs more work in comparative lexicography." A criticims which, however, did not hinder Kaye in "joining to V(ycichls).'s Buduma cognate ... to Sem. *yamm- "sea" that Kaye was attaching to the monoradical root for "water": "In light of this, I wish to add to Newman's (1980) PAA *m ..."

[49] Kaye & Daniels (l.c.): "W. Vycichl is the only major AA specialist, other than G. Garbini,[19] who believes that there exists a special Ham(itic). sub-branch as distinct from the Sem. one. He thinks that PAA split off into PSem. (in Asia) and PHam. (Africa) ... He is in favor, hiwever, of an Asian homeland for PAA ..." His paper "bases the separate identity of Ham. as a unit on shaky grounds as root biconsonantility. In doing so he must ignore the fact that there is much evidence in favor of biconsonantal roots in Sem. (hollow, third radical weak with determinatives), and that determinatives ... are merely a Sem. innovation."

-war predecessors, most importantly, F. von Calice (cf. Takács 2006b) and A. Ember (cf. Takács 2005b and 2006c). Thus, immediately one of Vergote's earliest works, his *Phonétique historique de l'égyptien* (1945) has soon turned out to be epochal primarily for his ingenious new theory on the historical signification of the Bohairic Coptic (non)-aspirated stops for rendering the pharaonic stops. But this magnum opus yielded much for the comparative domain too for it also contains an appendix with an Egypto-Semitic comparative wordlist (Vergote 1945,127-148), entitled "Étymologies chamito-sémitiques" (sic), where the etymological items were arranged according to the laws of Egypto-Semitic consonantal matches, based primarily on the corpus of both the ESS and especially of the GÄSW.[50] The system of comparative consonantism as summed up here may be regarded as the quintessence gained out of all the convincing equations of the "old school", which practically hardly requires corrections on a few points. Unfortunately, his whole research later (also), hardly going beyond the limits of the Egypto-Semitic etymologies accumulated by the pre-war "old school" and so yielding little new for our comparative domain, was fundamentally conceived in a mechanical projection of the Semitic patterns onto the reconstruction of Egyptian morphonology etc. So, it is no surprise that at the GLECS session of 23 May 1947 (CR du GLECS, vol. 4, 1945-8), he discussed the Middle Egyptian phonology in the mirror of Semitic. His 1965 long study was a novelty in our domain for its chapter "VI. Comparaison entre les sémantèmes égyptiens et sémitiques" (Vergote 1965: 79-102) where he compared, for the first time, the Egyptian and Semitic vocalisation in the derived (deverbal) morphological (nominal) stem patterns with an attempt at setting up all too directly forced concordances, but, unfortunately, he only occasionally worked with the direct evidence from Egypto--Semitic lexical comparisons. In his hasty conclusion, stimulated by the alleged identity of nominal syllable patterns in both NAA branches, Vergote (1965: 103) *ex cathedra* refuted the famous thesis by A.H. Gardiner (EG^3 §3), echoed also by G. Lefèbvre (1955: §1G), on the "African" substrate of Egyptian.[51] As several authors from the "old school", Vergote (1965: 103) was (a priori) convinced about just the opposite, i.e., he too considered Egyptian as a basically "Semitic language" that was only refined by some foreign adstrate.[52] The

[50] Vergote (1945: 127): "La présente liste ... donne seulement les étymologies qui présentent un interête particulier pour l'histoire des phonèmes égyptiens. Sauf avis contraire, nous réunissons dans chaque série ...les examples des listes A.B.C. de Calice."

[51] Lefèbvre (1955: §1G): "L'égyptien comporterait donc essenciellement lui aussi un substrat africain (plutôt libyque), que pénétrèrent et modifèrent de fortes influences sémitiques: c'est bien plutôt, semble-t-il, une langue africaine sémitisée qu'une langue sémitique déformée."

[52] Vergote (1965: 103): "Nôtre enquête a démontré à son tour l'étroite parenté existant entre l'égyptien et le sémitique dans un domaine aussi important que la formation des mots. ... On continuait à se demander jusqu'à quel point la langue des Pharaons est sémitique et dans quelle mesure elle a subi une évolution particulière sous l'influence d'un substrat étranger. Notre méthode est fondée les lois relatives à la place de l'accent et à la structure des syllables qui furent déjà établies par K. Sethe et par G. Steindorff. Elle y ajoute la découverte de G. Fecht – qui apporte certains changements aux lois précitées – sur la transition de la loi de l'antépénultième à la loi de la pénultième." Laying aside some "Abstraction faite de ... cas peu importants", Vergote (1965: 105) maintained that "... la grande majorité des formes égyptiennes et coptes, distinguées par nous, peuvent être ramenées, au maximum à 31 et au maximum à 36, peut-être même à 43 types structurels sémitiques. ... Mais rien ne s'oppose même à l'origine sémitique des classes mentionnées ..., malgré l'absence de toute parallélisme. Nous croyons pouvoir conclure que l'égyptien est une langue sémitique à part entière. De même que l'inventaire phonétique et le système phonologique des consonnes est sémitique, ainsi que nous l'avons démontré antérieurement, le système des

"partie diachronique" to Vergote's *Grammaire copte* (1973 volume Ib) offers in its chapter "Phonétique et phonologie" a reconstruction of the Egyptian historical consonantism in comparison with Semitic (renewed from his 1945 monograph), whereas in the chapter "Morphologie synthématique (structure des sémantèmes)", he followed the same way of directly equating the pharaonic stem patterns with the Semitic ones.

2.5.4. W.A. Ward (1928-1996), outstanding researcher of Egypto-Levante relations, sometime fellow of the American University of Beirut, later professor of egyptology at Brown University (Providence, Rhode Island):[53] he was, beside W. Vycichl, the most devoted and remarkable figure of the surviving "old school" in the second half of the 20th century. As a typical adherent of this trend, he released a whole series of etymological studies exclusively devoted to Egypto-Semitic cognates (usually accompanied by profound lexicographical analyses),[54] plus, a.o., a whole volume on the derivatives of the alleged four distinct homographic Eg. *√b3 roots (Ward 1978), full of precious philological-lexicographical investigations, conceived in the vision of an exclusive comparison with Semitic. This monograph was indeed a pioneering one by an egyptologist as it was rightly stressed by its reviewer, G. Roquet[55], who missed to mention both parallel volumes by G. Conti (1978, 1980), which will be examined below (sub-chapter no. 2.5.8.). In his profound review of Ward 1978, segmented into several chapters,[56] Roquet wisely formulated a number of critical remarks that fit not only Ward's methods but the state-of-the-art of the surviving "old school" in general also. Thus, first of all, Roquet targeted as subject of his sharp objection such traditional phenomena of the "old school", sensible in Ward's work too, as the long surviving anachronistic Semito-centrism in Egyptian etymologies (taken as granted in advance)[57] and a complete

voyelles et la structure des sémantèmes sont sémitiques. Ce n'est que dans sa morphologie que l'égyptien s'écarte considérablement de la langue mère et qu'il s'est développé d'une manière indépendente ... ici encore tout peut s'expliquer par l'évolution interne et pas n'est besoin d'intervoquer une influence étrangère."

[53] More on his life in the memorial volume edited by his successor at Brown University, Leonard H. Lesko (1998).

[54] Ward 1961, 1962, 1968, 1969, 1975, 1977, 1981.

[55] Roquet (1982: 15, §2): "c'est sans doute la première fois qu'en domaine chamito-sémitique un comparatiste, faisant état de la matière égyptienne, demande autant à la méthode comparative. À cet égard, l'ouvrage est sans conteste novateur par sa visée."

[56] E.g., like "II. Sélection du niveau de comparaison", "III. Appréhension du sens et comparaison: données de dictionnaires, énoncés et contextes", "IV. Appréhension du sens et image: pertinence des données iconiques", "V. Appréhension du sens et procès étymologiques: données coptes, reconstruction interne et traitement comparatif", "VI. Changement linguistique et dialecte: données de l'égyptien", "VII. Changement linguistique, chronologie relative et réécriture", "VIII. Comparer: critère de validité et théorie «réfutable»".

[57] In the reviewed work, Roquet (1982: 17, §5) rightly pointed out "... sémitique, traité par Ward comme terme directeur privilégié (3) d'une comparaison avec l'égyptien." Elsewhere, Roquet (1982: 17, §5, fn. 1) says: "Ce «sémitocentrisme» sélectif de la comparaison et de la reconstruction – qui déborde largement le domaine du lexique comparé de l'ancien égyptien – est critiqué par Meltzer: «There is a tendency to bias these comparisons toward Semitic, to form an idea of the proto-language modeled on a particular group of daughter languages. One in effect compares Egyptian with Proto-Semitic rather than Proto-Afroasiatic. This tendency to see in one daughter language or sub-family an approximatimation of the original state in the proto-language is something which also influenced early work in the Indo-European field ..."

neglection of the evidence from the rest of AA branches in Africa,[58] an out-fashioned use of the ill-founded term „Hamitic",[59] avoiding to use the modern ways of linguistic reconstruction in a comparative lexicon.[60] But he also addressed some personal deficiencies of the etymological analyses in Ward 1978, namely, the dangers of biconsonantal comparison,[61] an unchecked reliance on Semitic standard dictionaries for his *comparanda* extracted from their contexts and etymological histories without checking back the lexicographical literature[62] (a method criticized in Ward 1985 also, cf. below), an all too "generous" or negligent treatment of the consonantal history of some of his Egyptian comparanda,[63] ignoring the cuneiform and Coptic evidence,[64] an all too daring and ill-founded vision on pharaonic dialectal forms,[65]

[58] Roquet (1982: 16, §4): "Les données lexicales du couchitique, du berbère, non plus que du tchadique ne sont pas prises en compte, sans justification préalable. On cherche vainement dans l'ouvrage [footnote omitted] la raison pour laquelle seraient écartées les données."

[59] Roquet (1982: 16, §4, fn. 1): "À noter une mention du bedja ... des généralités sur un «Proto-Hamitic» est évacuée en une phrase!"

[60] Blaming Ward's method of not wasting attention for Cushitic and Chadic cognates for his *√b3 roots, Roquet (1982: 16, §5, fn. 3) praised A.B. Dolgopol'skij's (1973) "liste comparative basée sur l'ensemble des langues couchitiques. ... À partir de restitutions systématiques de proto-formes pour chaque entrée comparative, un tableau de correspondances phoniques ... est dressé: éloquent, ce bilan donne toute la mesure des incertitudes qui pésent sur la reconstruction d'un vocabulaire commun."

[61] Roquet (1982: 18, §7): "À ce niveau de reconstruction, pour une séquence de consonnes C1.C2., l'improbabilité qu'il y a pour le chercheur de «tomber» sur la «bonne» racine est maximale; les «chances» d'erreurs d'autant plus probables que sa sélection des termes comparés repose sur une appréciation intuitive du sens ... d'unités lexicales dont la structure phonématique n'est en rien garantie."

[62] Roquet (1982: 19-20, §9): "Dans l'ouvrage de Ward, le matériel sémitique sélectionné ne s'appuie pas sur des énoncés contrôlables, mais sur des données de dictionnaires. Comparer sur dictionnaires relève bien sûr d'une tradition ancrée dans la pratique: il n'est que de feuilleter nos listes comparatives plus ou moins classiques: Ember, Calice, Cohen M., ou Rössler ... Usage et habitude créent un conditionnement: nul n'est contraint d'y souscrire, d'y succomber, ou d'y sacrifier. Fussent-elles levées avec le plus grand soin, avec l'érudition le plus manifeste, ces listes ont, de toute évidence, un caractère lapidaire et simplificateur ..."

[63] For this purpose, Roquet (1982: 23-24, §§16-17) carefully examined how elsewhere, in some other studies, Ward treated the histories of, e.g., Eg. stj "to pour out" (OK) vs. st̲j "to sow" (OK), which are in fact surely unrelated (because -t- vs. -t̲- are strictly distinguished in the OK), or of Eg. ʿb.w (pl., name of a bird, MK), derived by Ward from ʿpj "to fly" (LP) instead of ʿb3 "nom d'oiseau: un limicole migrateur (*Streptopelia turtur turtur, s. arenicola*)" (identified by E. Edel in 1961 already): "Toutes les données internes à l'égyptien le plus anciennement noté l'invalident".

[64] Roquet (1982: 25, §18): "Si donc l'on admet qu'un «observable», de la langue, soit l'égyptien sur toute son histoire, pèse plus dans une telle enquête qu'une conjecture d'ordre comparatif, on s'étonne que l'auteur n'ait pas d'abord dressé un inventaire scrupuleux et critique des morphèmes lexicaux qui, en transcription cuneiforme, en grec, en vieux-copte ..., en copte, sont en rapport étymologique manifeste avec les B + 3 ou avec P + 3, tenus pour problématiques." Roquet (1982: 25-28, §§19-20) thoroughly checked the neglected Coptic reflexes to Ward's pharaonic forms, whereby Roquet (1982: 28-29, §21) had to draw painful conclusion on Ward's comparative method: "La qualité première du technicien de la comparaison généalogique est d'être un scrupuleux historien ... Le sous-titre de l'ouvrage laissait attendre des «etymological ... studies». À l'examen, l'on constate que l'étymologie interne n'est pas seulement subordonnée, mais sacrifiée à la comparaison: «egypto-semitic (sic) ... studies»."

[65] As for Ward's ways of projecting a dialectal nature on alleged pharaonic varieties of his lexical *comparanda*, Roquet (1982: 40, §35) has rightly remained utterly reluctant: "Comment se dissimuler les difficultés que rencontre l'égyptologue s'il cherche à isoler le «dialectal» dans l'âge pharaonique de la langue? Tout ce qui est variante ne relève pas du dialectal. Aussi accumuler les variantes ne suffit pas. Encore faut-il être en mesure de démontrer que celles-ci sont à la fois quasi-isochrones et régionalisées: deux contraintes critiques."

the alleged principle that "linguistic change does not have a specific chronology" (as declared by Ward 1978: §35),[66] ... Later, Ward gradually became specialized on late NWSemitic loanwords in Egyptian of the New Kingdom (Ward 1963, 1974, 1996), which is out of our scope to be examined here. Toward the eve of his fruitful researches, however, he returned to the questions of Egypto-Semitic cognates in a rather new mood, which was clearly stimulated by his research on Canaanite loanwords on the one hand and the appearence of alarming tendencies in this domain, on the other hand, such as O. Rössler's (1971) ambitious "neuere Komparatistik" posing in egyptological linguistics a matter of fiercy debates already in the 1980s. Ward's (1985) fundamental theoretical study, entitled "Reflections on methodology in Egypto-Semitic lexicography", with his far-reaching critical statements on the principles of Egypto-Semitic etymological research, arranged in five chapters, has ever since its appearence been very little-known. His new conception on genetic ties in AA was apparently influenced on some points by his current research on Egyptian lexicon borrowed from Canaanite. One of these is his far-fetched objection against conceiving all kinds of otherwise cognate-looking Egypto-Semitic lexical matches as genetically related,[67] i.e., as issuing from a common ancestral proto-language in the Neolithic only due to some pretty mechanic reasoning[68] with a late textual attestation.[69] Another methodological contribution in this study by Ward was his profound critique of Rössler's (1971) fundamental study with a radically

[66] Roquet (1982: 42, §38): "Là, on est loin de cette technique sommaire, qui s'octroie toutes les libertés pour multiplier les contre-examples ..., en rapprochant les mots sans commentaire critique et sans référence à la chronologie éventuelle des sources. ... Mais bien plutôt la moindre règle avancée doit-elle définie ou ré-ajustée par un examen scrupuleux des graphies alternantes, de leur date et de leur localisation. Le recours à la comparaison ne disperse pas de cette contrainte primordiale: la qualité de l'une dépend de l'autre."

[67] Ward (1985: 232-233, §I): "Could not much, or most, of this vocabulary be rather loan words (!) from Semitic into Egyptian, or vice versa, in historical times? No overall linguistic pattern has emerged which allows a satisfactory answer to this question. ... it has been the practice ... to assume that comparisons in which the Egyptian cognate is found in Old or Middle Egyptian are Egypto-Semitic. This may be quite incorrect, however, since nothing forbids such a comparison from being a loan word in the historic age. This is true even when phonetic shifts presumed to be Egypto-Semitic are involved. The shift or r/l to 3 ... may have originated in pre-literate times, but it still operated with genuine loan words much later, as witness its repeated occurence in the Amorite personal names preserved in the Egyptian Execration Texts of ca. 1800-1750 BC ... Ideally, we should define Egypto--Semitic cognates only from texts of the third millennium BC since lexical comparisons from this period are more likely to reflect the prehistoric languages. In practice, it is rarely possible since the Semitic material of that period is limited. Indeed, the farther away we get from the earliest written evidence, the higher the possibility that a given comparison is not Egypto-Semitic but a loan of the historic period."

[68] When speaking of seeing "there no semantic basis for this comparison", one is reminded of Ward's hasty assessment on mechanically treating such a great proportion of the Egyptian lexicon as borrowed that may by far not be that all-round, since he ignored, e.g., the phonological and semantical aspects peculiar of loans when treating *comparanda* as lonwords, which is not at all possible.

[69] Ward (1985: 234): "A serious error ... made with some frequency, is to compare Late Egyptian words with words in the later Semitic dialects and to call such comparisons as Egypto-Semitic. ... It is evident that the term 'Egypto-Semitic' is used very loosely. It is applied indiscriminately to lexical comparisons of all periods, usually with little regard to the history of the usage of the terms involved. We cannot assume that words known only in Late Egyptian and the later Semitic dialects ... have long previous histories stretching back to Neolithic times. ... Because of the long history of contacts between Egypt and Western Asia, we must always consider the possibility that a given cognate may not go back to prehistory at all, but was borrowed from one direction or the other in the historic period."

new conception of Egypto-Semitic phonological matches, where Ward has made a number of valid observations. Thus, a great deficiency of Rössler was in his view that his "dependence on dictionary meanings sometimes leads to false etymologies".[70] Another one was treating possible loans as cognates.[71] Finally, Ward (1985: chapter §IV,[72] 242-245) addressed the wider AA comparison where his fundamental doubts are hardly in accordance with the post--Greenbergian state-of-the-art of modern AA linguistics. Ward, here too, voiced the obscure aversions towards global AA comparison, so typical of the whole trend of the "old school", arguing simply that "if lexical comparison between Egyptian and Semitic are often difficult, they are even more so in the broader field of 'Hamito-Semitic'" (Ward 1985: 242). Joining other authorities'[73] fears of the same kind, Ward dug out the usual counter-argument against AA genetic comparison, a rather hypocrite one I am afraid, namely that the comparison of modern languages with no ancient attestation is a danger in general.[74] But arguing so one necessarily ignores, as did Ward too, the commonly accepted results of the modern comparative methods in Fenno-Ugric, Dravidian etc.[75] Regarding the "lexical contacts" among the AA branches, Ward (1985: 244) was disposed to eventually "explain certain equations" better as loans (!) instead of considering them as "the residue of some prehistoric linguistic substratum".[76] He joined G. Conti (1978) who "has shown that at least part of the ancient

[70] Or as Ward (1985: 237, §III) described: "It is evident ... that the words involved in any comparison should be studied in actual context and dictionaries not be used as the sole judge of their meanings." Listing some false examples, he states: "The dictionary is incorrect so there is no semantic basis for this comparison. These incorrect equations were made because the dictionary meanings were corresponded. But once the history of the words involved is examined in detail, it is evident that the dictionary is incorrect ..."

[71] Ward (1985: 237, §III): "Other factors such as the late Semitic evidence ... and unacceptable phonetic equations ... add to the proof that neither of these comparisons can possibly be Egypto-Semitic. Egypto-Semitic comparisons can only be produced by examining the history of each root in both Egyptian and Semitic. If the phonetics, semantics and chronology agree, the comparison is valid. This must be the first rule in Egypto-Semitic lexical (!) methodology."

[72] In the publication, the numeration "IV" (sic) of this chapter (pp. 242-245) is certainly false, since the preceding one (on Rössler's methods) was also counted as no. "IV" (pp. 237-242).

[73] Like W. von Soden (1965: 163ff.), J. Vergote (1973: 6ff.), C.T. Hodge (1970: 237).

[74] Ward (1985: 243) found here "one factor ... disturbing ... that the African languages from which lexical comparisons with Semitic and Egyptian are drawn are known only from modern times so that lexical equations are made which may span some 5000 years ... which advises great caution in making lexical comparisons with the African dialects. ... With such a wide chronological range in the written evidence, we are presented with very dubious comparisons." Then, Ward evaluated a few "African" cognates to Egyptian from this methodological standpoint, whereby he either discarded or accepted some. But he was sceptical even on the latter: "But is this connection Afroasiatic, that is, can we project it back into pre-literate times?"

[75] What a pity, since doing so, he could have mentioned some further most relevent facts of comparative linguistics by far more advanced as, e.g., in Fenno-Ugric or Uralic where one can only work with modern languages (mostly with attestation from the 19th century on) and even the most ancient written records (of Hungarian) stem from the 11th cent. AD only, i.e., much worse working circumstances which, however, have not hindered finding the ways of setting up the *Lautgesetze* among the branches resulting in a high quality reconstruction of the Proto-Uralic *Grundsprache*.

[76] "It is in this way that" Ward (1985: 244) "would explain" not only Somali gaʿan and Bed. ganʾa (-ʾ- misquoted as -ʿ-!) "arm, hand" < Ar. ğanāḥ- "wing" < Coptic (S) ⲭⲛⲁϩ etc. (!), but even the match of Hausa sunsuna vs. Eg. snsn "to smell" which, in his (Ward 1985: 245) view, "similarly, ... was brought into Hausa (sic!) in much the same manner, though here we do not have the Coptic and Arabic forms to assure this route of transmission

Egyptian agricultural vocabulary was borrowed as new agricultural techniques and tools were brought into Egypt from Western Asia", which is misleading and hardly adequate here as technical terms of the agricultural vocabulary were in all latecomer societies and languages naturally disposed to being borrowed and such a special status can hardly be transposed onto the history of the core/basic lexicon. In the last chapter of this far-reaching paper, Ward arrived at a little flattering view on the pre-war "old school"[77] and at a rather deviant platform distantiating himself, partly rightly, from both trends of Egypto-Semitic comparison (surviving "old school" vs. "neuere Komparatistik") in the second half of the 20th century.[78] As a result, he ended up rightly declining the artificial Egypto-Semitic unity.[79] In this respect, he was probably right. But he too failed to overcome another old error of the "old school", namely, the aversion to involve the rest of the AA branches in the comparison, which doomed this trend to become hopelessly retarded and to keep failing to keep up with the progress in our field.

2.5.5. C.T. Hodge (1917-1998), a researcher of historical linguistics esp. of Egyptian and Hausa at Bloomington, can hardly be counted among the typical representatives (mostly egyptologists by training) of the classical "old school" (and so most of his output will be discussed in Episode VIII devoted to the Greenbergian trend): still, although he contributed in the first two decades of his research (1960s-1970s) mostly to broader AA (e.g., Hausa-Egyptian) comparison (labelled by him "Lisramic", cf. Episode VIII), and purely to Egypto-Semitic, in the Greenbergian manner of "mass comparison", and then he even wiedened this scale onto the AA-IE trend (labelled by him "Lislakh", cf. Episode V) in the last two decades (1980s-1990s) of his career, Hodge had some papers joining the core trend of the "old school", most notably his fundamental study entitled "An Egypto-Semitic Comparison" (1976a), which was conceived as "an effort to define more closely the relationship of Egyptian to Semitic" (Hodge 1976a: 5, §1.1), where he confronted the Semitic

(sic!). What seems perfectly clear to me is that Somali gaʿan and Hausa sunsuna, and **many words like them, do not have to be considered as remnants of a prehistoric Afroasiatic vocabulary**. I see no reason why they cannot be considered as more modern loans borrowed at some time during the long history of contacts between Africa and Asia."

[77] Ward (1985: 245, §V): "I find myself increasingly less convinced that we have properly defined the lexicographical connections between Egyptian and Semitic. ... the major collections of Egypto-Semitic cognates were produced in the 1930's and 40's" whose "result was chaos."

[78] Speaking of the heritage of the pre-war "old school", Ward (1985: 245, §V) remains skeptical in general: "This situation has not changed in the intervening decades. Indeed, the chaos has been compounded by new approaches. Vycichl's dependence on Arabic and Rössler's untenable phonetic theories have now produced new lists of etymologies which, in my opinion, are full of errors. As far as lexicography is concerned, then, Egypto-Semitic studies remain as chaotic as ever. The number of acceptable etymologies remains very limited and I venture the guess that much of the 'Egypto-Semitic' vocabulary consists of loan-words in historic times."

[79] Ward (1985: 245, §V): "It **may be** that **the concept of 'Egypto-Semitic'** is a modern invention and ... **never really existed at all**. The small common vocabulary could just as well have been the result of linguistic borrowing in Neolithic times so that no so-called parent language never (!) existed and the whole idea of an 'Egypto-Semitic' linguistic stratum should be abandoned. In spite of almost a century of research in this elusive field, the central questions are still not answered and no concrete methodology has emerged. This may well be because we are dealing with a concept that has no reality except in modern speculation."

lexicon (based on the list from G. Bergsträsser 1928: 181-192) with the Egyptian one.[80] Regarding the old theory on a tighter Egypto-Semitic cognacy, Hodge rightly remained better cautious and reserved,[81] which reveals his reliance on the new ideas formulated by J.H. Greenberg. Drawing his conclusions, Hodge (1976a: 25, §3) states to have found just a total of 72 cognates as opposed to 98 no-cognates, whereby he excluded the out-dated belief about "Egyptian as a Semitic language" but he too assumed a relatively closer connection of both branches.[82] Regarding the comparatistic output of Hodge in general, his all too liberal ways of connecting almost any, in fact, unrelated *comparanda* by forging *ex nihil* chains of nowhere attested intermediate forms by assuming diverse phonological shifts at a time, became his method practised esp. in the frames of his "consonant ablaut theory" (elaborated in his papers published after 1986), which strikingly resembles of W.F. Albright's (1918a, b, 1927) approach to elaborating a common Egypto-Semitic vocabulary, where comparative phonological criteria were as a rule arbitrarily overwritten by the semantical closeness, e.g., he was not hindered by the facts to equate Sem. *t̲alāt̲- with Eg. ḫmt only because both mean "3".

2.5.6. G. Garbini: as a similarly occasional side-effect of his researches in the traditional domain of Semitic philology, this outstanding Italian Orientalist also released a few papers on Egypto-Semitic. Thus, in his profound review on Lacau's (1970a) etymologies of the anatomical terminology (Garbini 1971a), he first re-discussed the segments of the Eg.-Sem. comparative phonology (pp. 133ff.), where he very correctly summed up both tendencies of a simplification through merger and erosion[83] as well as an innovative enrichment via

[80] Hodge (1976a: 5): "The proportion of Egyptian words found to be cognate should give us a good estimate of how closely Egyptian approximates Semitic (but not vice versa, which would entail an Egyptian and searching for general Semitic cognates)."

[81] In the light of the old and his own etymologies, Hodge (1976a: 7, §1.2.5) believes that "It is therefore a fair assumption that there is a great deal of phonetic similarity between Egyptian and Semitic and that we should look for cognates with very similar phonetic shapes. (Phonetic identity of consonants transcribed by the same symbol is, of course, not assumed). ... This stress on close formal correspondence is not meant to imply that it is irrelevant or unimportant to study what meanings are held in common and how these meanings are distributed vis-à-vis form. Such a study would be very valuable."

[82] Hodge (1976a: 25-26): "These figures indicate that of a vocabulary representative of general Semitic ... 42.35 per cent have ... genuine Egyptian cognates. Of these the closest relationship is shown when the usual Egyptian word is that which is cognate. ... The result is 19 or nearly 20 per cent, still a very respectable number. ... This high figure supports the view that **Egyptian**, while **not a Semitic language**, is closely related to Semitic. Such a large percentage of cognates in a limited corpus also raises one's hopes of establishing a reasonable proto--phonology for these two branches."

[83] Garbini (1971a: 133): "è noto che il consonantismo egiziano è fortemente innovatore rispetto a quello semitico: la perdita delle consonanti enfatiche (ad eccezione di q), un certo livellamento delle sonanti (scomparsa di l, frequente riduzione di r a ʾ o a y) e la confluenza in un unico fonema, s ... dei due fonemi semitici s_1 e s_2 (corrispondenti alle consonanti ebraiche ס e ש) hanno provocato una notevole riduzione del patrimonio consonantico originario, sì che, ad esempio, alle consonante egiziana t si trovano a corrispondere in semitico sia t sia ṯ."

palatalization[84] in the Egyptian system, whence he has given a valid and almost precise[85] synthesis of the "old school". Unaware of the subsequent Russian results (first available towards the late 1970s only)[86] in reconstructing the PAA consonantism as yet, Garbini's assumption on the secondary nature of the rich Arabic consonantal inventory[87] has later turned out, however, to be premature as similarly rich sets of correlates were proven to be inherited from PAA both in Southern Cushitic and West Chadic, but he was right in general about the innovative nature of Canaanite within NWSemitic (except for just Ugaritic with an as archaic consonantism as that in Arabic). Garbini's second paper from this year (1971b: 248), isolating a Sem. *p pronominal (deictic) morph, even in spite of focusing mostly on the Semitic evidence, ended up in a new (albeit false) theory on the origin of the Eg. morph *p- present in demonstratives like p3, pw, pf, pn,[88] which once more testifies to the genuinely initiative trait of Garbini's fruitful research, even though these were restricted in the traditional Egypto-Semitic frames. In his talk for the 2nd Semito-Hamitic congress (Florence, 1974), Garbini (1978) addressed a few theoretical issues of Egypto-Semitic, i.a. and most notably, the Semitic nature of Egyptian, where his positively critical attitude was, however, not accompanied by professional insights into the African branches when examining Egyptian's linguogenetical forming with some exciting, albeit speculative, outcome.[89]

[84] Garbini (1971a: 133) says: "D'altra parte l'egiziano ha sviluppato una serie di nuovi fonemi, nati probabilmente per fonematizzazione secondaria di varianti fonetiche, analogamente a quanto si verifica in semitica: abbiamo in tal modo le consonanti f, ḫ e la serie delle palatalizzate, č, ǧ (nella quale è confluita anche l'enfatica semitica ṣ) e š (la quale non corrisponde alla semitica s_2 [ש] ma è una creazione egiziana indipendente). Trattandosi di sviluppi secondari dell'egiziano, dei quali per di più sfugge il meccanismo, è naturale che una consonante semitica potrà corrispondere in tal caso indifferentemente alla consonante che conserva la realizzazione fonetica originaria ovvero a quella foneticamente evoluta ... senza che sia possibile stabilire a priori a quale delle due consonanti egiziane ci si troverà di fronte."

[85] He is, however, incorrect in his hasty conclusion on Eg. f as an innovation in comparison with Sem. *p, since, on the one hand, closed in the Eg.-Sem. world of a classical researcher of the Orient, he too, ignored J.H. Greenberg's (1958) ingenious discovery of the Egypto-West Chadic isophone proving the inherited nature of the labial triad *b-, *p-, *f- and, on the other hand, he could not yet have be aware of the very same etymological evidence in Southern Cushitic explored by G. Takács (beginning from 1999).

[86] Cf. D'jakonov-Porhomovskij 1979; Diakonoff 1984; Diakonoff, Militarev, Porkhomovskij, Stolbova 1987 and 1993.

[87] Garbini (1971a: 133): "... il ricco sistema consonantico dell'arabo classico, che pur tuttavia presenta un numero di fonemi inferiore a quello dei dialetti arabi moderni, è il frutto di una serie di fonematizzazioni secondarie e successive. Questo processo di arricchimento consonantico, che è ancora oggi in atto, è caratteristico dell'area innovatrice semitica nordoccidentale e trova la sua prima manifestazione concreta nell'ugaritico."

[88] The problem is that, on the Egyptian side, the morph behaves purely as a *Genuselement* (to use the Viennese terminology of W. Vycichl etc.) associated solely with the masculine gender (cf. the respective fem. paradigms: t3, tw, tf, tn). For further discussion, see EDE II 375-376.

[89] Regarding Egyptian phonology and morphology as basically Semitic, Garbini (1978: 48, §3) was puzzled by the all too non-Semitic nature of its vocabulary unexpected in the light of other segments of the language: "E' questa ... la ragione per cui è stata fatta l'ipotesi, variamente formulata dai diversi studiosi, dell'egiziano come una lingua autonoma dal semitico, sorta dall'incontro di una lingua locale, africana o libica, con un superstrato semitico. ... il lessico è quasi completamente estraneo al semitico." Garbini (1978: 49, §3): "Resta il problema del lessico non-smitico, troppo ricco e troppo fondamentale per poter essere considerato come un semplice apporto di superstrato africano." Garbini's (1978: 51, §4) vision of the linguogenesis: "Questa duplica stratificazione grammaticale dell'egiziano trova un preciso riscontro nelle vicende storiche, almeno per quel che ce ne fa intravvedere la ricerca archeologica. La fase più antica, semito-camitica, dell'egiziano va con ogni probabilità collocata nell'età

2.5.7. G. Conti (Florence), the eminent Italian egyptologist and Semiticist, published in 1970s (and only) a number of remarkable studies on Egypto-Semitic. But then, he too abandoned this marginal zone and returned to his Eblaite studies. Already his early paper on the exclusive Ethiopian etymology of Eg. 3zḫ "sickle" (Conti 1973-4), a prelude to some of the great ideas expressed in his 1978 book (such as isoglosses shared with Ethiopian reflecting some extra-AA African substrate),[90] and then the paper describing the Egypto-Semitic terminology for "roof" (Conti 1976b), both reveal his keen interest in exploring the mystery of linguogenesis in the neolithic Nile Valley in the frames of Egypto-Semitic, whose comparative consonantism Conti (1976a) has surveyed in a special study for the sake of better assessing Egyptian historical phonology in the light of all the relevant works to his day, esp. by J. Vergote, P. Lacau, M. Cohen, and, a.o., of the attempt at rewriting the Semitic correspondences of a few Egyptian consonants by O. Rössler (1971) that perhaps Conti was the first to comment on on the behalf of the "old school". His position was fundamentally theoretical and focusing on Rössler's new triadic system of the pharaonic consonantism and confronting it with Vergote's binary system in a rather descriptive manner as a whole. Still, Conti's (1976a: 54-55) final word was rejectful and cautiously reserved (which is why it has

neolitica, quella che vide la diffusione, lungo la costa africana settentrionale e lungo il Nilo, delle culture neolitiche di origine asiatica: una valutazione cronologica prudente ci riporta almeno al V millennio a.C. ... La fase più recente, quella delle innovazioni semitiche settentrionali, trova la sua più ovvia collocazione nelle fase finale de periodo pre-dinastico: tra il 3600 a.C. e la prima età dinastica l'Egitto appare sottoposto ad un fortissimo influsso di origine asiatica, effettivamente impensabile senza un corrispondente apporto etnico. Fu così che si formò il 'sostrato semitico' della lingua egiziana: un sostrato che dovette subito tener conto delle parlate locali-specialmente nel lessico. Quest'ultima affermazione non è fatta soltanto a posteriori, ma tenendo anche conto di un dato obiettivo: la particolari condizioni ambientali dell'Egitto, son il suo deserto e le sue periodiche inondazioni, con i suoi laghi e il progressivo inaridimento del Sahara, hanno fortemente condizionato molti aspetti della sua cultura materiale la quale grazie appunto all'eccezionalità di quelle condizioni, si è sviluppata in maniera altamente originale. ... verso la fine del IV millennio a.C. il lessico egiziano era notevolamente più vicino al semitico di quanto lo fosse alcuni secoli più tardi: in quel periodo, quando fu inventata la scrittura geroglifica, la mano si chiamava ancora **'ad* e l'occhio ancora **'in.* Per spiegarci perché in seguito qusti due termini furono sostituiti rispettivamente da *ḏrt* e da *jrt*, dobbiamo rivolgerci, ancora alla storia. La lingua egiziana ... è la lingua del regno unificato: ma l'unificazione fu realizzata da un sovrano di Hierakonpolis, una città del sud, dove più forte era l'elemento etnico e culturale africano. La contrapposizione di questo elemento meridionale africano a quello settentrionale fortemente asiatizzato, se non complemente asiatico, costituisce un elemento basilare e costante di tutta la civiltà egiziana ... La vittoria politica del sud è la causa storica del superstrato africano della lingua egiziana."

[90] Conti (1973-4: 31): "Sulle diverse ipotesi che sono state presentate intorno alla formazione della lingua egiziana ha sempre avuto un peso notevole la supposta esistenza ... di un sostrato, o di un parastrato, o ... di una componente africana ..." Thus, Geez ʔəzḫ "pietra focaia", "che non sia attestata in nessun'altra lingua d'Etiopia, eccetto forse il tigrino ʔazaḥit, qəzaḥit, «quarzo», qualora sia da considerare originaria la prima forma e la seconda dovuta a ipercorrettismo", was for Conti (1973-4: 32-33) a further evidence of the "ipotesi di rapporti comerciali preistorici, rapporti che non trovano conferma archeologica se non in alcuni manufatti litici con caratteristiche proprie di culture neolitiche egiziane rinvenuti in Somalia [footnote omitted], regione geograficamente non ben distinguibile dall'Etiopia propriamente detta [footnote omitted]; in Etiopia le poche stazioni preistoriche studiate [footnote omitted] non hanno restituito, oltre la ceramica e le pitture rupestri di cui si farà cenno tra breve, che strumenti litici wiltoniani, e quindi di una facies culturale comune a tutta l'Africa sudoccidentale [footnote omitted]. D'altra parte alcuni disegni rupestri, che sono le testimonianze della preistoria etiopica maggiormente studiate [footnote omitted], presentano moduli stilistici già noti in Libia e in Egitto, con cui formano il trait d'union le pitture del Sudan egiziano ..." Trace of such an East African substrate may be supposed in another exclusive Egypto-Ethiopian isoglosse such as Eg. dng "pigmeo" to be explained either from Agaw or the Sudanese lexicon (Conti 1973-4: 34).

not by chance been so little quoted in the works of the so-called "neuere Komparatistik", the primarily Germanophone Rössler followers, over the past half of a century): "... la ricostruzione del Rössler sembra molto più lontana di quella di Vergote dal sistema ricostruito per il semitico, che entrambi considerano il punto di riferimento per l'identificazione di uno stadio più antico, non ricostruibile storicamente: infatti per dentali, sibilanti, laringali il sistema del Rössler appare completamente scardinato rispetto al corrispondente semitico. Inoltre un sistema così preciso, così completo, simmetrico pare non tener conto di quella evoluzione della lingua che porterà alla creazione, nel copto, di un sistema nuovo, privo di emfatiche, sonore, aspirate, nel quale invece Vergote mostrava il logico compimento del processo di riassestamento iniziato dopo che forti spinte innovatrici avevano portato il sistema su posizioni instabili. Infine la rigide sistemazione schematica, l'assoluta simmetria che si postula per il livello originario camitosemitico, dove sarebbeno state presenti perfino laringali enfatiche , che non appaiono atestate storicamente in nessuna lingua, sembra troppo attratta: innanzi tutto non tiene conto del fatto che le lingue rifuggono l'assoluta simmetria ... e poi in uno stato più sistematizzato è preferibile vedere, in genere, non il punto di partenza, ma piuttosto il punto di arrivo da uno stadio antico più libero ..., pur entro i limiti evidenti di una certa funzionalità, senza la quale ogni sistema sarebbe irrealizzabile." All these souvereign thoughts, in all likelyhood representing the first general critique of the arbitrary Rösslerian system, strikingly coincide with the general reservation formulated in EDE I 392 also, independently, more than two decades later: "In general, ... Rössler and his followers created a system which works brilliantly on the basis of some selected examples. But if we "throw" more and more linguistic data into this system, we find unfortunately that its supporters did not examine all alternatives to Egyptian etymologies when they were trying to set up some definitely new laws of Egypto-Semitic consonant correspondences." Both of Conti's volumes, along with the 1978 monograph by W.A. Ward on the Eg. *√b3 roots (above), represent the modest culmination of this surviving trend in this domain during the post-war era. Among these three volumes, Conti's (1978) magnificent book, in spite of all its necessary shortcomings issuing from the a priori restricted scope of comparison (not going beyond the limits of Egypto-Semitic benumbing the whole research), is undoubtedly by far outstanding in the whole history of this trend in the 20th century history as this *magnum opus* (not just for Conti but, in fact, for this whole trend ever) proposed not only a common Egypto-Semitic vocabulary of the agricultural terminology allegedly shared by both these branches (itself a sensational novelty and a far-reaching daring attempt in his day) but also because its abundant introductory chapers (Conti 1978: 1-29) have provided practically the richest survey of Egypto-Semitic studies to that day including the research history of Egyptian as compared with Semitic (Conti 1978: 2-9, §2) and the rest of the AA branches (Conti 1978: 9-13, §3), resp., also a relatively poorer chapter on the "Studi recenti" (Conti 1978: 13-15, §4) hardly presenting the all-round state-of-the-art except for the works by G. Garbini (above), and, finally, Conti (1978: 18-29, §6) released a profound discussion of the Egypto-Semitic phonological correspondences. This volume's core corpus, the etymological dictionary (Conti 1978: 31-143), arranged in semantically isolated

chapters,[91] offers a number of new, albeit phonologically all too vague Semitic etymologies with a laudable retrospective survey of the concurring proposals, plus the brief archaeological background of the respective terms. The analysis is concluded by Conti's (1978: 145--166) "Considerazioni finali", segmented into chapters following the diverse layers of the pharaonic agricultural terminology,[92] which led him in his "8. Conclusioni" to assuming two basic layers, namely a pre-Semitic substrate of further segmentation[93] and an Egypto-Semitic one.[94] As for the first layer, Conti was only able to surmize its presence from some vague traces, whereas the second one was based on lexical parallels some of which are phonologically all too doubtful. Still, the merit of Conti's epochal attempt, which has not received the due reaction and appreciation except for great Diakonoff and the Muscovite Afrasian team, lies not necessarily in its individual etymologies, but in its author's brave, even if vain, effort itself to break out from the shroud of an old prejudice surrounding in this trend the "Semiticity" of Egyptian. Conti's pioneering first step to explore Nile Valley neolithic agriculture on Semitic bases, with its debatable etymologies, a.o., most notably that of Eg. sk3 "to plough" (PT-), clearly stimulated A.Ju. Militarev's (1983) very first study on reconstructing the Common AA agricultural lexicon, on whose first pages, his starting point was his revision of Conti's hypothesis on the alleged borrowing of agricultural terminology from Mesopotamia into Egyptian.[95] Instead of a forced and artificial restriction of an etymological analysis within the insufficient frames of Egypto-Semitic in this apparently multinuclear domain, Militarev (1983: 99) revised the whole matter around Eg. sk3 and its alleged cognates by "привлечение по возможности полного афразийского материала", which

[91] Like "Capitolo I: Termini generali", "Capitolo II: L'agricoltura con la zappa", "Capitolo III: L'agricoltura con l'aratro", "Capitolo IV: I cereali", "Capitolo V: La coltivazione delle vite".

[92] Of diverse origins like "1. Riepilogo del confronti egittosemitici proposti", "2. Egiziano e accadico/sumerico", "3. Egiziano e camitosemitico", "4. Egiziano e arabo", "5. Egiziano e semitico nordoccidentale", "6. Egiziano e etiopico", "7. Egiziano e sostrato mediterraneo".

[93] Conti (1978: 165): "... si distinguono dunque due filoni: il primo è costituito da una serie di vocaboli culturali, prestiti evidenti, che si riconnettono al sostrato 'protoeufratico' e 'mediterraneo' i più antichi: al sumerico, all'accadico e, i più recenti, al semitico nordoccidentale, e sono indizio e conseguenza di un protrarsi di rapporti e di scambi con le culture circostanti dell'Asia." Conti (1978: 166): "Quanto al sostrato, o alla componente africana, ..., non se ne sono identificate che deboli tracce, non mostrando l'egiziano particolari rapporti con le lingue d'Etiopia."

[94] Conti (1978: 165-166): "Il secondo è costituito da quei confronti egittosemitici che attestano un diverso rapporto, non di dipendenza diretta, ma di evoluzione indipendente nei due gruppi a partire da una base comune, senza legami particolati con le tecniche agricole; e sono questi i confronti che definischono il carattere camitosemitico dell'egiziano: permettono infatti di identificare non una lingua semitica, già costituita, che si sovrappone ad una lingua africana, né una lingua camitosemitica che si espande da un camitosemitico pressistente unitari, ma piuttosto una lingua (e una civiltà) formatasi, sulla base di una potenzialità comune in seqguito ad apporti diversi."

[95] Supposed to have taken place via Palestina and the Sinai, which Conti gave little credit since the terms in question are not attested just in North-West Semitic, and, instead, he followed another theory assuminga a water route all way around the Arabian peninsula via the Persian Gulf and through the Red Sea. Still, Militarev (1983: 98-99) doubted when, how and why the colonists with this agricultural knowledge and vocabulary could have arrived this circumstantial way, since, in his view, "в Египте в V, а возможно, и в VI тыс. до н.э. уже существовало мотыжное земледелие, да и подобные морские путешествия вряд ли могли иметь место в столь раннюю эпоху ...".

“создает совершенно иную картину”. This is, in fact, how and whence the Muscovite Afrasianist’s worldwide known revolutionary Natufian homeland hypothesis sprung from, but this will be examined in Episode IX of this series to be devoted to the bright Russian era of the AA phonological and lexical comparison re-established by I.M. Diakonoff. A similarly little echoed far-reaching giant step hides in Conti’s (1980) second (and, unfortunately, last) Egypto-Semitic volume touching upon another neuralgic segment of this trend as the author exclusively and encyclopaedically elaborated the peculiar root pattern $\sqrt{nC_1C_2C_1C_2}$ (Conti: n1212), which is uniquely attested in Ethio-Semitic and older Egyptian (from Pyramid Texts until the classical medical texts). This volume testifies once more to the innovative nature of Conti’s research, even when it was closed within the limits of only two ancient AA branches. The volume first offers a lengthy introduction into the phenomenon of biliteral roots in general (including a brief outlook into the AA branches beyond Egypto-Semitic and even Indo-European), where Conti (1980: 1-33) managed to yield an all-round overview with an up-to-date literature. The core part of the book consists of a thorough survey of the root pattern $\sqrt{nC_1C_2C_1C_2}$ in AA,[96] two voluminous comparative root lexicons containing comprehensively all possible $\sqrt{nC_1C_2C_1C_2}$ roots (with their etymologies) as attested in Egyptian and Ethio-Semitic, resp.[97] The enormously profound etymological analysis of these Egypto-Semitic roots ended up in the final chapter[98] comprising another series of excurses with an accordingly thorough examination of related problems such as the disputable biliteral background of the pattern $\sqrt{nC_1C_2C_1C_2}$,[99] the root pattern and incompatibility of radicals in both branches,[100] the grammatical-semantical function(s) of this root type,[101] the role of prefix n- in Semitic zoonyms and plant names,[102] and finally, the African genesis of

[96] Namely, “Capitolo I: Il tema verbale N1212: Considerazioni generali” (Conti 1978: 35-46), which is segmented into diverse domains of attestation of this root pattern: “1. Il tema verbale n1212 in egiziano”, “2. Il tema verbale n1212 in semitico e in camitosemitico”, “3. Il tema verbale n1212 nelle lingue semitiche d’Etiopia”, “4. Problemi inerenti alla concordanza egitto-etiopica”, followed by two samples of etymologically identical Egypto-Semitic $\sqrt{nC_1C_2C_1C_2}$ roots.

[97] Namely, “Capitolo II: Le attestazioni egiziane” (arranged in Egyptian alphabetic order as declared in the ZDMG of 1892) and “Capitolo III: Le attestazioni etiopiche” (arranged in Latin alphabetic order), resp. (Conti 1978: 47-71 and 73-93, resp.).

[98] Namely, “Capitolo IV: Considerazioni finali” (Conti 1978: 95-119).

[99] Viz. “1. Validità dell’ipotesi bilittera” and “2. Consistenza del lessico bilittero, e conseguenze dell’ipotesi bilittera” (Conti 1978: 95-98), where the central question was to what degree can $\sqrt{nC_1C_2C_1C_2}$ roots project real biliteral roots into oldest Egyptian and Proto-Semitic.

[100] Viz. “3. Ambito fonetico” (Conti 1978: 98-102), where the author compared the occurences of all the possible consonant phonemes as C_1 and C_2, resp., in the Egyptian vs. Ethio-Semitic $\sqrt{nC_1C_2C_1C_2}$ roots in accordance with incompatibilities.

[101] Viz. “4. Valore del tema verbale n1212” (Conti 1978: 103-107), where Conti tried to consider all possible impacts of the preformative n- and the 1212 type of reduplication in the values of the $\sqrt{nC_1C_2C_1C_2}$ roots, which was extended in some subsequent chapters to a comparative survey of this signification in certain Semitic groups in particular: “5. La testimonianza dell’accadico”, “6. Le attestazioni sudarabiche”, “7. Significato delle attestazioni accadica e sudarabica” (Conti 1978: 108-111).

[102] Viz. “8. Nomi di animali e piante a prefisso n” (Conti 1978: 112-115), in which Conti (1978: 115) has concluded to that “La testimonianza dell’accadico, che attesta ... tracce di uno stesso modello espressivo, prova nuovamente che l’etiopico in questa preformante n unita a nomi di animali e piante conserva un modello espressivo arcaico comune.”

√nC$_1$C$_2$C$_1$C$_2$.[103] At this point, Conti has apparently ceased to carry on his fruitful Egypto--Semitic research, or, at least, to the best of my knowledge, he published no more in this domain, and returned to Semitic philology purely. Two decades later, however, his pupil, M. Franci started to be actively present on the comparative track of his master (cf. sub-chapter no. 2.5.20. below).

Post-war supporters of the "old school" of Egypto-Semitic

A common feature of the long history of this trend throughout the whole 20th century, be it pre- or post-war, is that it has always kept attracting a high number of orientalists from both egyptology and Semitic studies to occasionally devote some minor papers (as a sort of by-product to their mainstream philological activity) to the problems of Egypto-Semitic comparison in the unchanged introverted manner of "old school" (and only, i.e., without any outlook onto the rest of the Afro-Asiatic family), which clearly signifies the fundamentally improductive, self-serving nature of this trend that has been maintained, aside from very few long-surviving enthusiasts like W. Vycichl, just by the sporadic *ad hoc* papers by numerous authorities in mainstream fields of oriental philology, especially scholars of Semitic from Italian universities, who were/are mostly outsiders in comparative linguistics and whose researches did not focus on Egypto-Semitic on a regular basis.

2.5.8. H. Brunner: this eminent egyptologist was only occasionally dealing with Egypto--Semitic as so many others in this trend. In a special study (Brunner 1965), he examined the various homphonous Eg. roots √k3p and some Semitic cognates thereof, most notably *kap- (sic) "Hand-, Fußfläche", which was twice re-borrowed into Egyptian during its historical contacts with Semitic.

2.5.9. G. Roquet: one of the greatest figure of French egyptological linguistics, for whom Egypto-Semitic issues appeared to be an important marginal segment of his domain. He too, however, had a word on these issues from his strict and consequent methodological point of view. Evaluating Lacau's (1970) Egypto-Semitic anatomical etymologies, Roquet (1968-9: 88-90) was still by far more reserved in his critical attitude than in his later reviews as, in his annotated list, he mostly approved the treatment of the comparative material in Lacau's

[103] Viz. "9. Osservazioni sulla localizzazione africana del tema verbale n1212" (Conti 1978: 116-119) leading the author to diverse uncertain hypotheses: "il fatto che in egiziano, che pur deve aver usufruito, in età preistorica di una corrente africana di stimoli culturali comune con l'Etiopia [footnote omitted], una esigenzadi così vago respiro abbia portato, in maniero completamente autonoma, agli stessi risultati, è ipotesi possibile, ma non ovvia" (op.cit., p. 117). Elsewhere: "Il cuscitico d'altra parte non attesta il tema verbale n1212; se però la convergenza tra egiziano ed etiopico non è casuale, se cioè l'attuazione in questo modello espressivo comune camitosemitico ... può essere attribuita ad una azione sottile di sostrato, ciò è strano" (op.cit., p. 118). Or: "nelle lingue semitiche moderne d'Etiopia il tema verbale n1212 alterna con la coniugazione composta, di cui ha lo stesso significato. Fatto questo che pare legare il prefisso n, la coniugazione con l'ausiliare e il tema verbale n1212 in un cerchio da cui non è facile scappare, indicando nel sostrato un elemento che può aver influenzato la scelta e il rafforzamento di un modello espressivo camitosemitico" (op.cit., p. 119).

original work.[104] In his study on four Bedja words allegedly linked to Egyptian parallels, Roquet (1972-3) has masterfully pointed out how these could have only be borrowed from Late Egyptian or Coptic. While the rest of his examples can indeed only be explained via borrowing,[105] this can hardly fit the case of Bed. hiyo "mari, époux".[106] Roquet's (1973) paper,[107] completed on the 8th Nov. 1973, in which he did not yet take O. Rössler's (1971) fundamental study into account, has examined the "Incompabilités dans la racine en ancien égyptien", whose outcome, even when no comparative research has directly been involved therein, will have great bearing on the future duel of the out-fashioned "old school" and the ambitious "neuere Komparatistik" established by Rössler, a.o., on the basis of the Egyptian root incompatibilities.

2.5.10. A. Loprieno: in the mosaic of his eclectic output in the Egyptian *Sprachgeschichte*, he has produced at the very beginning of his career something to be considered here: a contribution on the nature of the pharaonic dentals and velars (1977) with a modest demonstration of their reflection in both contemporary and genetic parallels he poorly reproduced from others' research (like J. Vergote, M. Cohen, W. Helck). Doing so, he failed even to consider the fundamental research by O. Rössler (1966, 1971) on the subject. His 1986 LÄ entry on the Egyptian numerals has little original to say beside the stereotypes of the ca. century old literature on the subject. At this time, however, when he realized the rise of the neo--Rösslerian renaissance in the 1980s as a trend adopted almost in all main fortresses of Germanophone mainstream Egyptian linguistics, he very soon sided with this hypothesis in

[104] Roquet (1968-9,89): "Cette présentation des comparaisons rappelées, proposées ou suggérées par Lacau ne se veut en aucun cas critique et exhaustive, rappelons-le. Elle est schématique et doit inciter à prendre connaissance de l'ouvrage où les questions de graphie, de phonétique et de la lexicologie comparée sont largement débattues ..."

[105] E.g., among others, Bed. haymo "vague", whose -m- testifies to a post-MK borrowing from some later Egyptian source as the -m# of LEg. h(3)m → *hjm > Coptic (S) ϩⲟⲉⲓⲙ, ϩⲟⲓⲙⲉ, ϩⲟⲙⲉ, (SSᶠF) ϩⲁⲉⲓⲙ, (AL) ϩⲁ(ⲉ)ⲓⲙⲉ, (A) ϩⲙⲁⲓⲉ, (F) ϩⲁⲓⲙ, (B) ϩⲱⲓⲙⲓ regularly derived from the cluster -nw of the underlying Old Egyptian etymon, h3n.w.

[106] Bed. hiyo "mari, époux" < Coptic (S etc.) ϩⲉⲓ < Eg. h3j (Roquet 1972-3: 128-130, §4), which already L. Reinisch (1895: 26, 133) discovered, "sans pour autant préciser à quel niveau se situait cette comparaison" as Roquet rightly objected. This match has since then been maintained by several authors as cognates (often in comparison with Sem. *√hwy "to love" too), cf. Ember 1917: 21; GÄSW 36, #68; Cohen 1947: #92; IS 1971: 241, #100; Militarev 1986: 72; Blažek 1994 MS Bed., 2. But the fact of the matter is that, aside from the fact that words for "husband" are not typical loans, the Beja-Egyptian match may eventually turn out to be illusory. On the one hand, the former finds hopeful cognates in LECu.: Saho-Afar hẹ̣yó "Mensch" [Reinisch 1878: 134] || (?) SCu. *ḥaw-/*ḥāy- "husband" [GT] = *ḥā- (sic) [Ehret]: WRift *ḥawa-ta "husband" [KM 2004: 150] | Dahalo ḥáǯo [-ǯ- regular < *-y-], pl. ḥáʔi "husband" [Ehret] = ḥáǯo, pl. ḥáʕi ~ ḥáǯōma "man, husband, judge" [EEN 1989: 26] (SCu.: Ehret 1980: 299, #IX.C.2, also 386, Table 4) ||| CCh.: Logone γuye "Ehemann" [Lukas 1936: 96]. G. Farina (1923-5: 324) and V. Loret (1945: 242) combined Eg. h3 ~ hn "mari" with Sem. *√ʔhl > Ar. ʔahala "se marier, prendre femme" [BK I 66] = "conjugium inivit, uxorem duxit" [Loret]. At the same time, on the other hand, Eg. h3j (with its -3- usually regular < *-l/r-) may find its true match in ECu.: Dullay *ḥal- "husband" [Ehret 2000 MS: 303, #2428]: Harso-Dobase ḥal-hó (m) "Ehemenn, Gefährte", Gollango ḥāl-hó (m) "Ehemenn" (Dullay: AMS 1980: 163, 203).

[107] As Roquet (1973: 107, fn. 1) promised, "Cette communication faite au Colloque de Cologen (sic) est le résumé de certaines conclusions d'une étude plus vaste, à paraître prochainement."

a controversial attempt at its bizarre fusion with the ideas of the "old school", which is why this later segment of his output will be dealt with in the Rösslerian Episode VII of this series.

2.5.11. F. Aspesi: as an eminent scholar of Semitic and classical philology, the Italian linguist has been mainly focusing on the old Mediterranean/Aegaean (substratal) lexicon common to both Semitic or Canaanite vs. Indo-European and especially ancient Greek, and also of Linear A.[108] Among others though, he also examined a few Eg.-Sem. etymologies, e.g., the etymology of Eg. 3b.wt "family" hidden in his volume on grammatical gender distinction in Egypto-Semitic (Aspesi 1977: 36), the Eg. vessel name qd and its Sem. cognacy and their IE parallels (Aspesi 1983: 51, §2 and 52, §3 etc.), a few rarely mentioned items of the shared Egypto-Canaanite nautical terminology (Aspesi 1994b: 34), the mention of an alleged Old Egyptian noun nf.t[109] supposed to be cognate to Ug. nb-t and Hbr. nōpet "honey" (Aspesi 2004b), the Akkadian cognacy of Eg. k3n.w "vineyard" (Aspesi 2012-3: 3 and fn. 4) etc.

2.5.12. A. Saleh's (1979) paper was to demonstrate the phonetic values of certain hieroglyphs (w, 3, t, d̲) by long lists of sometimes uncertain lexical matches between Egyptian and Arabic, where, however, cognates were mingled with late loans. Thus, in Saleh's (1979: 563) words, "this study is meant to show to what extent the ancient elements – surviving, mainly in common Egyptian speech, and partly in Arabic – are capable of contributing to the history of Egyptian language."

2.5.13. A.A.H. Youssef: the egyptologist of Egypt has published a couple of papers with scattered Egypto-Semitic (mostly -Arabic) lexical parallels, which he was sometimes (cf., e.g., Youssef 1983 or 1987) inclined to treat better as loans borrowed by the former from the latter (labelled by him as words "of Semitic source" or "of Semitic origin") even when clear cognacy underlies. Youssef (1999: 83-88) proposed a bunch of Arabic cognates to PT and other roots of older Egyptian.

2.5.14. R. Moftah: another egyptologist of Egypt, who has also hidden in some philological papers a number of Arabic matches to Egyptian. Moftah (1987, esp. its notes on pp. 137-141) touched upon a number of early dynastic terms where he occasionally attached some ad hoc cognates from Arabic (and even Berber) without, however, any insight in their Semitic background. Moftah (1990, 1992) dealt with some derivatives and Arabic reflexes of Eg. *√šd.

[108] Cf., e.g., Aspesi 1994a; 1997; 2001 and many more, partly re-edited in the volume of his collected papers (Aspesi 2004a).

[109] In Aspesi's view, the form attested from the OK (Niuserre sun-temple at Abu Ghorab, V.) was a hapax denoting, in fact "unrefined honeycomb honey", which was "inherited from a common Hamito- or Egypto-Semitic lexical patrimony". Hardly so as Eg. nf.t in question has been derived in egyptological lexicography from the well--known root √nfj (inf. nf.t) "ausatmen, hauchen (auch bei der Imkerei), pusten" (ÄWb I col. 624a, referring precisely to the occurence in question from Dyn. V). By the way Sem. *nūb-t- "honey" has to be better equated with Eg. nb.w "Gold" (OK-, Wb II 237-239).

2.5.15. A. Roccati: although out of his gigantic philological output, the eminent Italian Turinese egyptologist devoted but just a few pages to Egypto-Semitic comparison and etymology, all this proved to be brilliant *Volltreffer*, including a fine study on the notation of vocalism in hieroglyphs with some Semitic parallels (Roccati 1988), a new examination of the dichotomy in the pharaonic lexicon (Roccati 1998),[110] and his convincing equation of Eg. kj "other" with Somali kalē "other" and Sem. *kilʔ- "two" (based on an adequate semantical argumentation) (Roccati 1994).

2.5.16. W.G.E. Watson, an outstanding specialist in Canaanite and especially in Ugaritic philology, has scattered a large number of Egypto-Semitic lexical parallels in his uncountable papers on Ugaritic lexicography since the 1970s,[111] throughout the past several decades of his fruitful researches, where he has been adhering to the Egypto-Semitic sound laws established by the "old school".

2.5.17. R.M. Wright's (1994) brief etymological note offered a further piece of Ugaritic contribution to the Egyptian lexicon.[112]

2.5.18. G. Bernard (1995-8) examined the semantical spectrum and history of the family of roots *√qrb and *√qlb, explained from the primary sense "giron", within the frames of Egypto-Semitic comparison in a paper, which he labelled in his sub-title as a "Contribution à la reconstruction chamito-sémitique" in spite of quoting in the manner of M. Cohen (1947) just two Cushitic forms plus but one single Hausa word, whereas he too missed and/or failed to shed any light on the phonological anomalies of the three latter "Hamitic" *comparanda*.

2.5.19. J. Osing: the eminent egyptologist from Berlin, the author of the two volumes from 1976 elaborating the pharaonic deverbal nominal stem patterns (NBÄ), has also released some rather banal and by far not original papers adhering to this trend towards the new millennium. His study on the phonetic value of the hieroglyphs <3> and <ʿ> (Osing 1997), which conventionally have been rendered as alif and ayin, resp., is no more than a by far (quaerter of a century) belated rejoinder to O. Rössler's (1966, 1971) new theory on Egypto--Semitic consonantal laws, where we once more only find a mechanical repetition of the corresponding theses of "old school", which were anyway well-known from the rejoinders by W. Vycichl (1985) and W.A. Ward (1985) examined above. Similarly, Osing (2000) defended the traditional values and the Semitic matches of Eg. <d> and <ḏ> in the manner of a mechanical copying E. Edel's (AÄG from 1955) valuable theses against the *ex cathedra*

[110] Where he, unlike P. Lacau (1970a) in his treatise about the anatomical terminology, tried to find different a background thereof: "La caratterizzazione del lessico egizio consiste non nel valore di 'animato', e neanche di 'movimento' (che è concetto seriore), quanto di 'performativo'. [footnote omitted] Le accezioni possono esser considerate solo nella loro valenza 'inerte' opposta a 'performativa', ovvero in entrambe, come risulta da una analisi di occorrenze che ho radunato." (Roccati 1998: 87).

[111] Right here, I have only been able to track the series of his papers relevant here down to 1996 (see bibliography below).

[112] Ug. mpr "convulsion" < √pr(p)r "to shake" compared with Eg. np3p3 "to flutter, convulse" < p3 "to fly".

hypothesis of O. Rössler. The author had hoped to compose his evidence, once more, by just copying the "old school" etymologies from the ESS and GÄSW, resp., published six to seven decades before his day. The funny thing is that Osing packed all this by far not original stuff in some kind of belated review some three decades after the reviewed study was published. That Osing's *magnum opus*, NBÄ, in turn, which is an otherwise useful tool for the vocalization of Ancient Egyptian, is at the same time so much abounding in astonishing ill-founded and fatally out-fashioned inner Egyptian deverbal root derivations (*Wurzeletymologien*) of primary nouns,[113] has become apparent to the wider audience when this bizarre system of assumptions led Osing (2001) into a whole series of banal errors in his misconceived review of EDE I, which were corrected by Takács (2005a: 14ff.; 2005c: 623ff.), who was the first scholar ever to critically analyze the phenomenon of traditional root etymologies., and II, resp.

2.5.20. P. Vernus: the outstanding authority of Egyptian philology in Paris, has only released, to the best of my knowledge, just one long study (2000) with an all-round overview, where, however, he managed to cover most aspects of Egyptian's affinities with other AA branches and even beyond,[114] including, of course, as its core a profound chapter on Egyptian and Semitic (Vernus 2000: 181-193) hastily concluding to the tightest cognacy of Egyptian exclusively with Semitic (and only) among all the AA branches.[115] Here, he offered, as a sample, a considerable collection of the lexical isoglosses (o.c., pp. 186-190) reflecting "le vocabulaire fondamental",[116] followed by some particular segments of Egypto-Semitic lexicon (Vernus 2000: 191-192, §22) which apparently testify to Vernus' being puzzled about their signification.[117] For instance, he was only able to draw such superficial *ad hoc* limits of a segmentation in the oldest Egypto-Semitic lexicon as degree of formal

[113] Which, e.g., made him produce many inner Egyptian *Ableitungen* that can hardly be regarded as scientific but rather as unprofessional and even comical. It is sad to observe how Osing uncritically allowed a number of errors of the kind that are not tolerated any more and have long been abandoned in better-established domains of comparative linguistics:

[114] Such as "Isoglosses chamito-sémitiques" elaborating, in fact, the core isomorphs shared by Egyptian with the rest of the AA branches (Vernus 2000: 172-173, §5); "Isoglosses lexicales" of Egyptian vs. AA in general drawn primarily from Ehret 1995, plus etymological analysis of the Egyptian flora and fauna terminology (Vernus 2000: 174-176, §6 and 177-178, §8, resp.); "Place de l'égyptien dans le phylum chamito-sémitique" falling into sub-chapters like "Égyptien et tchadique" (§10), "Égyptien et couchitique" (§11), "Égyptien et libyo-berbère" (§13), "Égyptien et sémitique" comprising pp. 181-193 (§§15-23), "Situation de l'égyptien dans le phylum chamito-sémitique" (§24), "Égyptien et autres familles linguistiques que le chamito-sémitique" (§25) (Vernus 2000: 178-195).

[115] Discarding but just the extremist theory on Egyptian as a Semitic language, still, Vernus (2000: 191, §21) too, ended up unable to avoid saying that: "Tout en rejetant les excès sémitocentristes, comment ne pas reconnaître que c'est bien avec le sémitique que l'égyptien présente les rapports les plus étroits, et depuis longtemps?"

[116] Where "on ne laisse d'être frappé par le petit nombre de termes désignant les plantes ou des animaux, particulièrement susceptibles de voyager, et inversement par la prépondérance du vocabulaire individuelle que du comportement social et des activités" (Vernus 2000: 190, §20).

[117] Vernus (2000: 191, §22): "l'examen des faits donne à penser que, même pour le stade le plus ancien, la situation est complexe. Cette complexité est manifeste dans le vocabulaire."

coincidence[118] or semantical domains[119] or Semitic words only reflected by the hieroglyphs[120] that evenetually yielded for Vernus hardly any new serious conclusions other than the well-known theory of a secondary areal influence of Semitic on predynastic Egyptian. Vernus' study neatly testifies to the enormous gap between the output of the "old school" and modern AA linguistics.

2.5.21. J. Huehnergard, a renowned doyen of Semitic philology, also took part in a recent workshop designed to assess the position of Egyptian within AA and his paper approaching the Egypto-Semitic problem from the high standards of his own field, wasted in his comprehensive survey of diverse aspects of the whole grammar problem just 2 pages (2023: 141-142) on the comparative consonantism where he tried to lay bases for "the comparison to a reconstructed proto-form of" Semitic whose phonological system he then tried to compare with the Egyptian one on a few selected points without launching into any detail about the lexical parallels. At the end of his investigation of morphological and syntactical equations in Semitic vs. Egyptian, he turned back to the unsettled question of the lexical parallels which he cut short by a fundamental doubt taken as a granted fact that no sufficient material is underlying for setting up regular sound correspondences.[121] Refraining from the task itself of drawing any consonantal laws between Old Egyptian and Proto-Semitic, Huehnergard was not that cautious about elaborating diverse hypotheses for what he had not

[118] Vernus (2000: 191-192, §22): "Coexistent ..., en premier lieu, nombre de termes identiques à ceux du sémitique, compte tenu des correspondances à peu près réguliers (1), et, en second lieu, d'autres dont le rapprochement avec le sémitique est difficilement contestable, mais suppose d'importantes modifications phonétiques (2)." Under point (1) he classified, in fact, isoglosses believed to be exclusively Egypto-Arabic: "une série de mots dont la racine se retrouve pratiquement inchangée en arabe ... Ce sont là des mots très anciennement attestés: un paysan arabophone de la vallée du Nil, dans son arabe de l'an 2000, utilise encore, pour la notion de «sceller, fermer», une racine trilitère *ḫtm*, déjà présente ... dans les inscriptions hiéroglyphiques des premières dynasties ...!" In the group (2), illustrated for some unexplained by the Egyptian numerals 1-10, Vernus arbitrarily segmented three further sub-classes: (2.1) „Trois d'entre eux montrent ... des correspondances phonétiques attendues avec leurs homologues sémitiques", where he listed, however, to our surprise, also Eg. sjs < srs "6" = Sem. *√sds (sic apud Vernus) and Eg. ḫmn "8" = Sem. *√t̲mn < **√šmn. (2.2) "Pour d'autres, un apparentement n'est pas exclu mais, s'il se laisse se reconstituer, c'est au prix de modifications phonétiques souvent importantes." (2.3) "D'autres ... proviennent d'une racine différente ...", e.g., Eg. ḫmt "3", fd "4", dj "5", md̲ (misquoted as mdw with -d-) "10".

[119] Where Vernus (2000: 192, §23) extracted the "lexique des activités techniques et économique" that „montre tout à la fois des éléments pouvant avoir une origine commune, mais ayant subi des processus de dérivation [footnote omitted], et d'autres où les correspondances sont trés étroites ..."

[120] Vernus (2000: 193, §23): "... la valeur phonétique de certains signes égyptiens correspondaient aux noms sémitiques de ce qu'ils répresentent ..., ce qui fixe le début de l'écriture comme point de repère chronologique pour l'nfluence sémitique", whence his conclusion is not at all new: „... durant la période proto-dynastique, un très fort apport sémitique était venu se combiner à un substrat qui, lui-même, était antérieurement apparenté aux langues sémitiques, de quelque nature que soit cet apparantement (génétique, aréal, l'un et l'autre?). Certes, il faut se garder de confondre faits culturels et faits linguistiques, et il n'est pas question de recourir à la théorie de la race dynastique sémitique donnant son impulsion à la formation de la civilisation pharaonique ..."

[121] Huehnergard (2023: 185-186): "But when we compare that Proto-Semitic lexicon with the rich lexicon of Egyptian, we do not find many items in common; we find so few, indeed, that we are hard pressed to formulate consistent sound correspondences."

even carefully examined.[122] However worried I am about such a methodology, Huehnergard's superfacial impression is something I can confirm to a certain degree from my researches over the past three decades: (1) if one is to confront strictly and purely Old Egyptian and Proto-Semitic lexicons, one really struck by the very low number of cognate sets suggesting a very remote separation in the AA past, but (2) if one holistically considers (later, but not borrowed) Egyptian and Semitic (daughter group or language) lexicons, the outcome points to a much higher degree of cognacy and lexical innovations in either of both branches,[123] which alters, however, a bit about their relative distance in the AA classification."

Future of the Egypto-Semitic "old school"?

Finally, with the above-enumerated scholars we have arrived at the slow expiration of that post-war generation of those sporadic great scholars from some mainstream orientalistic field who were as, so to say, isolated enthusiasts stimulated at all towards making an occasional excursus in a border zone like Egypto-Semitic. Accordingly, Egypto-Semitic comparative grammar has usually, as far as I know from my own experience, not become part of the training in either of these orientalistic disciplines, let alone for the lack of training pupils about comparative Afro-Asiatic globally, the ways of lexical comparison and phonological reconstruction.

At the turn of the new millennium, only a few younger fellows have emerged in this totally peripheral field, even less worldwide than ever in any other earlier phase of the history of this trend. But, just like the scholars mentioned above, every single one of these isolated

[122] Huehnergard (2023: 186): "This lexical disparity has always puzzled me: if Egyptian and Semitic are genetically related—and ... I believe that they are—and if Proto-Semitic is dated some time in the fourth millennium, and we begin to have extensive attestation of Egyptian by the mid-third millennium, then the fact that their respective lexicons are so different must signify one of two things: either they separated from one another several millennia earlier, or, perhaps more likely, one or the other, or both, underwent replacement of much of the lexicon through contact with another language or languages."

[123] Having studied a whole series of segments in the Egyptian anatomical terminology in my series of studies elaborating the etymological background to the "Layers of the oldest Egyptian lexicon", I usually found that Chadic and Cushitic are by far overwhelming among direct cognates, whereas approx. the same amount of indirect cognates may be found in Semitic (Takács 2015b: 86-113: Semitic has 12 direct and 3 indirect parallels, while Cushitic 15 and Chadic 19 direct matches in the semantic domain of hair, head, temple, ear, eye, nose, tooth, tongue, lung, heart, hand; Takács 2016a: 104-105: additionally, Semitic has only 9 direct and 15 indirect parallels, while Cushitic 19 and Chadic 21 direct matches in the semantic domain of hair, crown of head, skull, face, forehead, eyebrow, mouth, jaw, neck, throat, lung; Takács 2016c: 306-308: Semitic has only 13 direct and 19 indirect parallels, while Cushitic 28 and Chadic 30 direct matches in the semantic domain of shoulder, arm, hand, breast, chest; Takács 2018a: 291-292: Semitic has 5 direct and 4 indirect parallels, while Cushitic 5 and Chadic only 4 direct matches in the semantic domain of back of head, back, spine, buttock, bottom, tail). These investigations are still ongoing in the further domains of the anatomical terminology. But what I have so far found indicates a basically Cushitic and Chadic anatomical lexicon to which Semitic partly only shares indirect cognates void of anatomical connotation and where the share Berber and Omotic cognates is as a rule clearly minimal. All this testifies to the likelyhood of to the pharaonic lexical treasure fundamentally based on etyma found in Cushitic and Chadic, where we can only see a very remote relationship of Semitic vs. a fully peripheral zone shared with Berber and Omotic.

young scholars is following precisely the same track (as a trend whereever their research took place):
(1) all they, perhaps leaving aside the single exception of M. Franci, are primarily engaged in some other, mainstream orientalistic domain and their MA theses[124] or some other work on Egypto-Semitic were just meant to be an occasional excursus.
(2) Their interest of comparison, in addition, is equally as introverted as that of their predecessors being simply restricted to Egypto-Semitic as if just these both were necessarily tightly connected,[125] where hardly anything beyond both these AA branches has penetrated the iron curtain and the *a priori* settled frames of their comparative researches.

Accordingly, any further real progress of this improductive trend is not even thinkable. Considering, however, some signs evoking the sometime apparent predominance of the scholars of Semitic and Egyptian philology from Italian universities (particularly in the second half of the post-war phase), one might perhaps trust in a favorable influence issuing from the traditionally strong positions of the research over the Berber and Cushito-Omotic branches (accumulated, among others, in Naples)[126] in the Italian academic world that might inspire these gifted friends towards embracing a larger view of the whole Afro-Asiatic family,[127] instead of the forced equation of just two arbitrarily chosen branches of a much wider unit,[128] if one is to resolve the mystery of the Egyptian *Sprachgeschichte*.

[124] To the best of my knowledge, there have been just two BA/MA/PhD theses on Egypto-Semitic submitted until most recently by authors who have otherwise (before/after) not distinguished themselves in this comparative domain. Both pieces will be dealt with here.

[125] Although even he himself has *a priori* chosen merely Egyptian and Semitic for his essay on comparison, Semiticist J. Huehnergard (2023: 167-168) rightly emphasized that "I should also state explicitly ... that although I am comparing Semitic and Egyptian, I do not mean to suggest that I think they form a subgroup within Afro-Asiatic; on the contrary, I do not think they do."

[126] Thanks to a whole range of top researchers representing nearly all the AA branches in the Istituto Universitario Orientale di Napoli, Dipartimento di Studi e Ricerche su Africa e Paesi Arabi working on Berber and the Ethiopian languages.

[127] Of course, not in the manner of such fashionable, albeit data-poor projects as, e.g., the most recent workshop entitled "Ancient Egyptian and Afroasiatic: Rethinking the origins" with contributions filling up a whole volume (ed. by Almansa-Villatoro & Štubňová Nigrelli 2023) but painfully yielding once more yet another nice theoretical package of *nichtssagende Gemeinplätze* based on some elementary etymologies selected from the old literature and re-arranged for the 100th time, which signifies the failure of mainstream "Western" (Atlantic) egyptology and Semitic studies in performing an original research and bringing forth a genuine new synthesis. The volume disappoints those awaiting a renewal of the field. Even one of the truly competent participants of the workshop, J. Huehnergard (2023: 167-168), the outstanding authority of Semitic comparative linguistics, was bitterly confessing his failure in extending the out-fashioned Egypto-Semitic comparison: "... I also studied some Berber and Cushitic, hoping to gain a better understanding of early Semitic through a better understanding of its genetic siblings. But I ultimately grew frustrated in that enterprise; the dearth of clear cognate sets made it difficult to apply the comparative method either to reconstruct much of earlier, ancestral Afro-Asiatic with any confidence, or to sort out the interrelationships of its alleged descendant branches."

[128] Perhaps the only significant outcome of the volume publishing the most recent workshop entitled "Ancient Egyptian and Afroasiatic: rethinking the origins" (ed. by Almansa-Villatoro & Štubňová Nigrelli 2023) is that this (too) ended up refuting the usual prejudice on an alleged closeness of Egypto-Semitic, whose interrelationship would display sg. special in the whole AA family, which hardly stood the test of time.

2.5.22. A. Rubin, in the very beginning of his otherwise purely Semiticist career,[129] encouraged by G. Rendsburg's tutoring in comparative Egypto-Semitic,[130] submitted his MA thesis (1999, published in 2004)[131] on a comprehensive survey of the basic elements of a common Egypto-Semitic morphology (Rubin 1999: §II, pp. 7-39) and a comparative consonantism (Rubin 1999: §III, pp. 39-60). His work is an unexpectedly strict and solid, utmost minimalistic survey of just the safest shared elements of both branches in both morphology and phonology. His evidence was meticulously collected and evaluated from previous syntheses. The exceptionally solid thesis, void, in fact, of any substantially new observations and strictly limited onto Egypto-Semitic, modestly and correctly only confessed having failed in identifying many segments of the supposed common grammar, which led Rubin to assuming a relatively greater distance between Egyptian and Semitic.[132]

2.5.23. M. Franci is a pupil of P. Fronzaroli, P. Marrassini, and G. Gonti (Florence), whose Egypto-Semitic comparatistic is hallmarked in his output also. He, beside his main field of research (Semitic toponyms attested in the Middle Egyptian execration texts), has over the past two decades or so released some papers restricted to a comparison of Egypto-Semitic in the of manner P. Fronzaroli's epochal "Studi sul lessico commune semitico" with a number of genuine new observations in the field of body parts (2003, 2005), natural environment, spontaneous vegetation and wild animals (2009) including a special analysis of some problematic phonetic matches (Franci 2009: 66-67, §§2.1-2.4). Franci (2007) re-examined a number of questions of Eg.-Sem. comparative phonology with some retrospective insights. He devoted a study (Franci 2010) also to the popular question of common biliteral roots in the Eg.-Sem. matches and the problem of the diverse root affixes of diverse functions (-ḫ-,[133] -ʿ-, -b-, -n-, -h-, -ʔ-, -t-) often based on unfortunately arbitrary etymologies lacking a full presentation of the often more convincing older alternatives. Franci (2014b, 398-404)

[129] As is well known, the research of A. Rubin has since then long turned away from Egypto-Semitic and has since then been only focusing on Semitic, esp. MSA.

[130] Acknowledged by A. Rubin in his preface (1999: v) as follows: "I would also like to thank ... Professor Gary Rendsburg for introducing me to the relationship between Egyptian and Semitic and for editing an earlier draft of this thesis."

[131] *An introduction to the comparative grammar of Egyptian and Semitic*, presented to the Faculties of the University of Pennsylvania in Partial Fulfillment of the Requirements for the Degree of Master of Arts (1999, 64 pp.), which the author made me acquainted with at the joint session of NACAL and AOS (Baltimore, March 1999).

[132] Rubin (1999: 60): "The conclusions of this thesis are admittedly unsatisfying, as many questions remain unanswered. ... The difficulty in determining a complete system of phonological correspondences and the scarcity of shared lexical items indicate that Egyptian and Semitic had been diverging for a long time before they are first attested."

[133] Where he has chosen perhaps precisely not the best instance: "Questa ricostruzione permetterebbe anche una comparazione con il termine egiziano *mrḥt* "olio", "grasso", che può essere scomposto come segue: *mr-ḥ-t*, dove la -ḫ- indica il prefisso/suffisso, ormai lessicalizzato, funzionale in afroasiatico per la formazione nominale, di solito legata alle parti del corpo." The problem is that he ignored the traditional etymology of Eg. mrḥ.t as a nomen instrumenti m- derivation of Eg. wrḥ "to smear" (for the abundant literature on this explanation see EDE III 428) as well as almost all other plausible alternative etymologies (except for the least convincing comparison with AA *√mr "fat") dealt with in detail in EDE III 429-435. Moreover, speaking of an AA affix *-ḫ- in the body part terms he ignored that this whole problem along with all possible examples has been surveyed comprehensively in the special study by G. Takács (1997).

surveyed some tendencies of the Egyptian *Lautgeschichte* (consonants) from the Old Kingdom until Coptic among some other elements of historical grammar, which resulted in having a closer look at the already known palatalization shifts of diverse Egyptian consonants in the track of previous authors and demonstrated by a number of (old and own) Eg.-Sem. equations, both valid and disputable (Franci 2016: 43-49). He also re-examined the Eg.-Sem. correspondences with bilabials and dentals (Franci 2014a).

2.5.24. D. Calabro (a pupil of J. Johnson, Chicago Oriental Institute), perhaps the most outstanding promise of this long surviving old trend of Egypto-Semitic comparison, a gifted polyglott fluent in a number of Mediterranean languages. His talk at the 2008 Naples AA congress refined the Eg.-Sem. cultural term *sVgVll-at- "seal" on many points with philological analyses of the Hebrew, Ug., Qur'anic and Eg. textual evidence and a precious list of (partly new) Eg.-Sem. cognates with Eg. s- = Sem. *s- and Eg. <u>d</u> = Sem. *g, resp. (pp. 2-3). He presented in 2011 a bunch of Eg.-Sem. common roots sharing the sequence *-ḫt- with thorough philological insights.

2.5.25. S. Vittori (graduated in egyptology and Semitic studies from Pisa University, pupil of M.C. Betrò) defended his ph.d. thesis on the syllabic structure in Egyptian with regard to Semitic (2018). He has also dealt with the reconstruction of ancient Egyptian metrics. He has then started to collect literature on Egypto-Semitic,[134] whereby he established a database of common etymologies, but has so far not published on the subject.

2.5.26. E.T. Laor's (Semitic studies, TAU) most recent (2021) MA thesis,[135] which also "supports the hypothesis that the Semitic and Egyptian branches have a more recent common ancestor than Proto-Afroasiatic" (p. 4), basically ventured to reconstruct the common ancestral phonemic inventory of the alleged Proto-Egypto-Semitic parental language phase.

2.5.27. A.M. Wilson-Wright, equally a Semiticist primarily specialized on Hebrew, devoted a whole of a long study (2023) to re-evaluating the lexical, phonological, and morphological evidence of the allegedly tight relationship between Egyptian and Semitic, which led the author (apparently just an outsider[136] in this marginal comparative field) to conclude in

[134] Partly during his visit for consultation with this author at Balatonederics (April 2017).

[135] Namely, a thesis entitled *The common ancestor of the Semitic and ancient Egyptian languages*, submitted on the 30 May 2021 by Eleana Tamar Laor, student of Tel Aviv University, under the guidance of Dr. Letizia Cerqueglini (Lester and Sally Entin Faculty of the Humanities Department of the Hebrew Language and Semitic Linguistics), which I had the honour to review for the TAU in the fall semester of 2021.

[136] The level of the author's acquaintance with the very material of evidence can be easily ascertained by the treatment of such a banal and well-known cognate set like "tongue" (Wilson-Wright 2023: 189-190 and 194, §7.2.4): "Finally, some scholars engage in selective parsing in order to increase the similarity between Egyptian and Semitic forms. A marquee example of this practice is the word for 'tongue', Proto-Semitic **lisaːn* and reconstructed Egyptian **nís / nús*. ... Yet there is no inner-Semitic evidence for splitting **lisaːn* into two morphemes ..." It is a pity that the author has not yet heard of (1) the Coptic evidence clearly evidencing an Eg. *lĭ́s (otherwise she would not have written down a never and nowhere attested "**nís / nús*", cf. the explicit rejection of the same dilettantic blunder of J.P. Allen 2013: 39 examined already in the lengthy critical rejoinder by G. Takács 2015c: col. 577), (2) the inner Semitic biradical verbal evidence of *√lš with an *excursus* on Sem. *-ān- (Rössler 1952:

general even "that there is insufficient evidence to support a genetic (sic) relationship between Egyptian and Semitic." To my surprise, Wilson-Wright's (2023: 192-194, table 7.1 with note a) long list of "comparison of Proto-Semitic and internally reconstructed Egyptian basic vocabulary" was claimed to be composed "after Ehret 1995, 80–100".[137] At any rate, her long list with alarming miswritten or even misplaced transcriptions[138] has *eo ipso* evoked equally little trust in the subsequent discussion of some banal Egypto-Semitic etyma as based by an outsider on a very poor material mechanically copied out from some of the previous works and carelessly[139] argumented (Wilson-Wright 2023: 194-197, §§7.2.4-7.2.11).

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135, #22; Gazov-Ginzberg 1965: 93, #15 and 1974: 25; D'jakonov 1967: 187; 1970: 469; Lacau 1972: 304-305, §§18-19; Vergote 1973 Ib: 126, §79; Dombrowski 1987: 113-114, §II; Zaborski 1991: 1677; Belova 1993: 33, #2; Jušmanov 1998: 177; Militarev 2005: 98) along with (3) the abundant common Berbero-Chadic nominal evidence of an underlying PAA *√ls (available in the ocean of works on the subject, apparently unknown to A.M. Wilson--Wright, all too numerous to be listed here, cf. most importantly Vycichl 1934: 72; Sölken 1957: 207, fn. 9; Pilszczikowa 1958: 77; Gouffé 1971-2: 105, §1; Vycichl 1972: 177; 1989; 1990: 56, 89; Bender 1975: 142, #87.1; IS 1976: #273; Rössler 1979: 22; Rabin 1982: 28, #27; Faber 1984: 202, #12; Dolgopolsky 1990: 213, 217, 219; 1994: 268-270, #2; 1999: 54-55, #181; HSED #1666; Stolbova 1996: 88; CLD I 78, #239; Militarev 2005: 104). Her familiarity with African linguistics is hardly better. Cf., e.g., how the author cites "Hazda" (sic: -zd-), a language whose name (infact, Hadza) clearly tells her nothing, mechanically copied from a professional publication on a neighbouring African language family.

[137] On whose alarming methods see the detailed critical anlysis by G. Takács (2018b: 236-239, §I: "Amateurs and Egyptian philology").

[138] Cf. Eg. pẓḥ "to bite" vocalized as *^{h}pázvẖ (sic: *^{h}p-) (Wilson-Wright 2023: 193, item #46). Or cf. the author's (Wilson-Wright 2023: 193, item #91) erroneous 'h' (for the correct ḥ) even twice in Eg. nwh (sic) "rope" vocalized as *náwhv (sic), which painfully excludes a typo/misprint. All this looks highly strange and embarrassing for a Pennsylvania State University publication with Eisenbrauns.

[139] How Wilson-Wright (2023: 196, §7.2.10) refutes, e.g., C. Peust's Rösslerian equation of Sem. *d̲ubb- "fly" with Eg. ʿff "fly", vocalized as *ʿíff/*ʿúff < reconstructed Eg. *dúff is revealing about a strange way of thinking (of a generation?): "but this reconstruction rests on the argument (sic) that *d* shifted to ʿ in the Middle Kingdom." Following this line of thoughts one would be disposed to believe or not an etymology because a relevant sound law is allegedly corroborated by someone else. I am afraid, basing a decision on a scholarly matter on belief is totally outdated. Instead, one is expected to examine and know the very evidence material underlying, which here has not even been raised. Science is based on knowledge of facts gained from one's own genuine research. Undisturbed about such a need, she keeps arguing that, "as Richard Steiner and Orin D. Gensler have demonstrated, however, there is no cross-linguistic evidence that a voiced dental stop could change into a voiced pharyngeal fricative." But was this statement meant to stand for the missing argument pro or con about the alleged Eg. d > ʿ? Following this prediluvian way of argumentation, could one then feel entitled to establish or decline a sound law in Egyptian because of its presence/absence, resp., in other languages? By the way, the *ad hoc* shift of d → ʿayin does occur elsewhere (as confirmed to me by W. Behr, Bochum, in a p.c. in Frankfurt a/M, May 2000, cf. EDE I 342 from 1999, which the author failed to consult in 2023), which, however, cannot change a bit about the fact that the overwhelming majority of the Rösslerian etymologies for Eg. ʿ < *d, *z, *d̲, *ḏ̲, examined by me long ago (EDE I 346-366; Takács 2011, etc., unmentioned in the reviewed paper), have turned out to be false and this is what has some evidence value about the question.

Abbreviations of languages and other terms

(A): Ahmimic, AA: Afro-Asiatic (Afrasian, formerly: Semito-Hamitic), Ar.: Arabic, (B) Bohairic, Bed.: Bed'awye (Beja), Ch.: Chadic, Cu.: Cushitic, Eg.: Egyptian, (F): Fayyumic, IE: Indo-European, L: Late, (L): Lycopolitan (Sub-Akhmimic), LP: Late Period, N: North(ern), OK: Old Kingdom, Om.: Omotic, P: Proto-, S: South(ern), (S): Sahidic, Sem.: Semitic, SH: Semito-Hamitic, Ug.: Ugaritic, W: West(ern).

Abbreviations of author names

BK: Biberstein Kazimirski, Dlg.: Dolgopol'skij, GT: Takács, IS: Illič-Svityč, KM: Kießling & Mous.

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