INCREASING Morphological Complexity

1. THE ISSUE. In the principles-and-parameters framework, syntactic change is widely believed to be the outcome of parameter *re*-setting. In Roberts & Roussou's (2003) system, the locus of parameter change is the morphological expression of parameters. The non-convergence with the target grammar is brought about by the ambiguity or the loss of a morphological trigger, which initiates the reanalysis of an input string in terms of a simpler representation. The directionality of change is thus from morphology to syntax, with morphological change entailing the loss of formal marking. However, as Lightfoot (2006: 101) points out, the opposite scenario should be possible as well. In this paper, I will show that Ancient Egyptian (Afroasiatic) meets the profile of a richly recorded language "with INCREASING morphological complexity" and explore the consequences for a minimalist theory of syntactic change.

2. CENTRAL HYPOTHESIS. Instances of growing complexity in the inflectional component of grammar pose a challenge for cue-based models, since concurrent changes in word order and clause structure cannot be derived from structural simplification due to morphological erosion. Rather, the syntax must be allowed to change spontaneously, endogenously, without interface pressures from the morphology and the lexicon playing a decisive role. The reverse does not hold, however, since morphological change may be fed by independent syntactic change. I will defend the strong thesis that where morphological innovations proceed in a regularly and predictable we are dealing with regular morphological change that is initiated by regular syntactic change. The emergence of novel inflectional patterns and the extension of already existing ones to new domains in the later periods of Ancient Egyptian is a case in point, where the directionality of change is from the syntax to the morphology.

3. MAJOR TYPOLOGICAL SHIFTS. A salient aspect of Ancient Egyptian language history is the word order change from a rigid head-initial VSO language to a flexible SVO language, which displays all the earmarks of discourse-configurationality. In terms of morphological typology, the language underwent a change from a predominantly *aggluntinating* language with extensive use of affixation to an *isolating* language with a one-to-one correspondence between morphemes and words. Thus, compare the VSO pattern in Old Egyptian (ca. 2600-1990 BCE), in which the finite verb ***ms-n*** 'has born' contains the stem-external Perfect suffix ***–n***, with the SVO structure in Coptic (ca. 350-1200 CE), in which the Perfect tense/aspect marker ***a*** in pre-subject position is morphologically independent of the main verb *mise* 'to deliver'. The diachronic tendency to replace synthetic patterns by analytic ones led to an overall increase of morpho-semantic distinctions, with the result that the inflectional systems of later stages are more elaborate and fine-grained than those of earlier stages. At the same time, verbal stems acquire nominal features, which is why there are less verbal and finite than the corresponding verbal forms in eralier stages. As a result, they become incompatible with tense/aspect/mood (TAM) and voice marking.

4. SHIFTING *v*P-PHASES. The shift from synthetic > analytic morphology does not represent an isolated morphological change, but rather originates in the restructuring of the verbal domain. I will develop a phase-based analysis of this syntactic change in terms of the weakening of an originally strong *v*P-phase (Chomsky 2001). The proposed characterization of *v*P-phases as strong/weak is contingent on the syntactic anchoring of the finiteness feature, which, --following Boecks & Grohmann (2007) and Rouveret (2008)--, I take to be subject to parametric variation, both at the synchronic and diachronic level.

- Comparing Old Egyptian with Coptic, the *v*P-phase in Old Egyptian is originally strong and displays the following syntactic characteristics: (i) the verb is marked for finiteness within the vP domain, which also contains functional superstructure (aspect, voice), (ii) DP subjects and in/direct objects are licensed in-situ (Alexiadou & Anagnostopoulou 2001), (iii) finite verb movement to T(ense) is obligatory, but the domain may be extended to include the clausal left periphery (FOC(us), COMP (for Verb Second derivations); see diagram (3)
- The Coptic *v*P phase is weak, meaning that (i) it lacks internal functional superstructure, (ii) the finiteness feature is reassociated with externationalized tense/aspect/mood inflection words, (iii) subject raising to the highest inflectional specifier Spec,AgrP is obligatory, (iv) verb raising never exceeds the inflectional domain; see diagram (4)
- I propose a multi-causal explanation for the diachronic shift from strong to weak *v*P-phasehood, with particular attention for (i) the increase of serial verb constructions at the expense of single verb constructions (5), (ii) the reanalysis of Spec,TP (with Ā-properties) as a canonical subject (A-)position (6), (iii) the rise of infinitival tenses (7), (iv) the activation of an articulated topic/focus field in Coptic, which creates extra configurational space to host the newly emerging evidential-modal and focus-marking patterns (8).

(1) Old Egyptian VSO structure with Perfect tense marker ***–n***

ms-n	Nww	Mrjj-n(j)-Rʕ	ħr	dʒrt-f	jʔb-t
bear-PERF	ocean	Meri-ni-Re	on	hand-POSS.3M.SG	left-F.SG

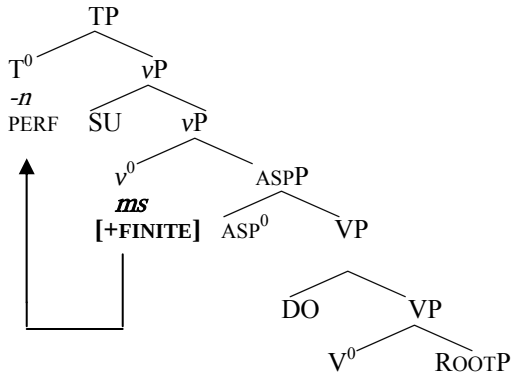
'The ocean has born (King) Meri-ni-Re on his left hand.'(Pyramid Texts 1701a/M)

(2) Coptic SVO structure with Perfect tense conjugation base ***a***

a	t-kʲaule	**mise**	ən-u-ʃeere	ən-shime
PERF	DEF.F.SG-camel	bear	PREP-INDEF.SG-girl	of-woman

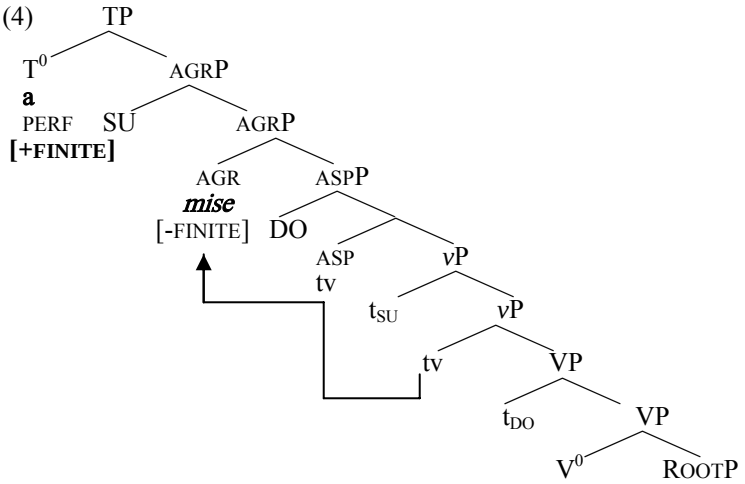
'The she-camel delivered a daughter.' (Mena, Miracles 10^b:33-34)

(3)



The architecture of the 'strong' vP-phase in Old Egyptian

(4)



The architecture of the 'weak' vP-phase in Coptic

(5) Serial verb construction with two finite verbs (***Early Middle Egyptian***, ca. 2000-1900 BCE)

ʕħʕ-n	**ħpt-n**	kjj	kjj
AUX-PERF	embrace-PERF	other	other

'Then one embraced the other.' (Coffin Texts IV 278d/Sq1C)

(6) DP subject in Spec,TP, binding a subject variable in Spec, vP (***Classic Middle Egyptian***, ca. 1800-1750 BCE)

jw	**jnb-w=s**	**dm-n**	t_{SU}	pt
AUX	wall-MP=POSS3FS	cratch-PERF		SKY

'Its (the temple's) walls scratched the sky.'(stela Louvre C3:6)

(7) Infinitival tense, indicating present/past progressive (***Late Egyptian***, ca. 1500-800 BCE)

wn-jn	pʔ-ʃrj	**ħr**	**ħms**	**ħr**	**jr-t**	hrw	nfr
AUX-FOC	DEF.MS-boy	at	sit.INF	at	make.INF	day	beautiful

'The young fellow sat down and spent a holiday (...)' (Doomed Prince 7:14)

(8) Focusing Perfect in a *wh*-in-situ question (***Coptic***)

ənt-a	u	βɔk	e-pe.k-hɛt ?
FOC-PERF	what	come	to-DEF.SG.M=POSS2SG.M-heart

'What has come into your heart?' (Apoth. Patr. Chaîne no.139, 31:7)

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